BEFORE THE MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

REGULATIONS GOVERNING SURFACE COAL MINING IN MISSISSIPPI

UNDER THE AUTHORITY OF MISS. CODE ANN. § 53-9-11

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SURFACE COAL MINING REGULATIONS

STATE OF MISSISSIPPI SURFACE COAL MINING REGULATIONS

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Subpart I. General Information

Chapter 1. General

§101. Authority

The Department is authorized to administer the requirements of the act and regulations promulgated thereunder.

§103. Responsibility

(a) The Commission is designated as the body to enforce the Act and these regulations including, but not limited to, the issuance of penalty orders, promulgation of regulations, designation of lands unsuitable for surface coal mining, and forfeiture of performance bonds.

(b) The Permit Board is designated as the body to issue, modify, revoke, transfer, suspend, and reissue permits and to require, modify or release performance bonds.

§105. Definitions

As used in these regulations, the following terms have the specified meaning, except where otherwise indicated.

Abandoned Site–a surface coal mining and reclamation operation for which the Department has found in writing that:

(a) all surface coal mining and reclamation activities at the site have ceased;

(b) the Department has issued at least one notice of violation, and either:

(1) is unable to serve the notice despite diligent efforts to do so; or

(2) the notice was served and has progressed to a failure-to-abate cessation order;

(c) the Department:

(1) is taking action to ensure that the permittee and operator, and owners and controllers of the permittee and operator, will be precluded from receiving future permits while violations continue at the site; and

(2) is taking action pursuant to these regulations and the act to ensure that abatement occurs or that there will not be a recurrence of the failure-to-abate, except where after evaluating the circumstances it concludes that further

enforcement offers little or no likelihood of successfully compelling abatement or recovering any reclamation costs; and

(d) where the site is, or was, permitted or bonded:

(1) the permit has expired or been revoked, or permit revocation proceedings have been initiated and are being pursued diligently; and

(2) the Department has initiated and is diligently pursuing forfeiture of, or the Commission has forfeited, the performance bond.

Acid Drainage–water with a pH value of less than 6.0, and in which total acidity exceeds total alkalinity, discharged from an active, inactive or abandoned surface coal mine and reclamation operation, or from an area affected by surface coal mining and reclamation operations.

Acid-Forming Materials–earth materials that contain sulfide minerals or other materials which, if exposed to air, water or weathering processes, form acids that may create acid drainage.

Acid Test Ratio–the relation of quick assets to current liabilities.

Act–the Mississippi Surface Coal Mining and Reclamation Law codified at Sections 53-9-1 et seq. of the Mississippi Code Annotated.

Adjacent Area– the area outside the permit area where a resource or resources, determined according to the context in which adjacent area is used, are or reasonably could be expected to be adversely impacted by proposed mining operations, including probable impacts from underground workings.

Affected Area–any land or water surface which is used to facilitate, or is physically altered by, surface coal mining and reclamation operations. The affected area includes: the disturbed area; any area upon which surface coal mining and reclamation operations are conducted; any adjacent lands the use of which is incidental to surface coal mining and reclamation operations; all areas covered by new or existing roads used to gain access to, or for hauling coal to or from, surface coal mining and reclamation operations; any area covered by surface excavations, workings, impoundments, dams, ventilation shafts, entryways, refuse banks, dumps, stockpiles, overburden piles, spoil banks, culm banks, tailings, holes or depressions, repair areas, storage areas or shipping areas; any areas upon which are sited structures, facilities or other property material on the surface resulting from, or incident to, surface coal mining and reclamation operations; and the area located above underground workings.

Agricultural Use–the use of any tract of land for the production of animal or vegetable life. The uses include, but are not limited to, the pasturing, grazing, and watering of livestock, and the cropping, cultivation, and harvesting of plants.

Appeal - an appeal to an appropriate court of the state taken from a final decision of the Permit Board or Commission made after a formal hearing before that body.

Applicant–a person applying for a permit, permit modification, permit renewal, or the transfer, assignment, or sale of permit rights from the Permit Board to conduct surface coal mining and reclamation operations or, where required, seeking approval for coal exploration or development operations.

Applicant Violator System or AVS-the computer system maintained by OSM to identify ownership or control links involving permit applicants, permittees, and persons cited in violation notices.

Application–the documents and other information filed with the Permit Board for the issuance of an exploration or surface mining and reclamation operations permit, permit modification, permit renewal, or the transfer, assignment, or sale of permit rights for surface coal mining and reclamation operations or where required, for coal exploration.

Approximate Original Contour–that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls, spoil piles and coal refuse piles eliminated. Permanent water impoundments may be permitted where the Permit Board determines that they are in compliance with §§5327, 5341 and 53109.

Aquifer–a zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use.

As recorded in the minutes of the Permit Board - the date of the Permit Board meeting at which the action concerned is taken by the Permit Board.

Asset Ratio–the relation of total assets to total liabilities.

Assets–cash and current assets that are reasonably expected to be realized in cash or sold or consumed within one year.

Auger Mining - a method of mining coal at a cliff or highwall by drilling holes into an exposed seam from the highwall and transporting the coal along an auger bit to the surface.

Best Technology Currently Available–equipment, devices, systems, methods or techniques which will:

(a) prevent, to the extent possible, additional contributions of suspended solids to stream flow or runoff outside the permit area, but in no event result in contributions of suspended solids in excess of requirements set by applicable state or federal laws;

and

(b) minimize, to the extent possible, disturbances and adverse impacts on fish, wildlife and related environmental values, and achieve enhancement of those resources where practicable. The term includes equipment, devices, systems, methods or techniques which are currently available anywhere as determined by the Department, even if they are not in routine use. The term includes, but is not limited to, construction practices, siting requirements, vegetative selection and planting requirements, animal stocking requirements, scheduling of activities, and design of sedimentation ponds in accordance with §5313-5327. Within the constraints of the permanent program, the Department shall have the discretion to determine the best technology currently available on a case-by-case basis.

Capital Assets–those assets such as lands, buildings and equipment held for use in the production and sale of other assets and services.

Cash–all cash items except cash restricted by an agreement, or described as earmarked for a particular purpose; and short term investments such as stocks, bonds, notes and certificates of deposit where the intent and ability to sell them in the near future is established by the operator.

Cemetery–any area of land where human bodies are interred.

Coal– combustible carbonaceous rock, classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials under the title, Standard Specification for Classification of Coals by Rank, ASTM D 388-77.

Coal Exploration, or *Exploration Operations*–the drilling of test holes or core holes for the purpose of, or related to, the determining of the location, quantity or quality of a coal deposit under a permit to be issued by the Permit Board, and any other coal exploration operations that will substantially disturb the surface and are not otherwise covered by these regulations.

Coal Mine Waste–coal processing waste and underground development waste.

Coal Mining Operation–the business of developing, producing, preparing and loading bituminous coal, subbituminous coal, anthracite, or lignite, or of reclaiming the areas upon which such activities occur. This term applies solely to Chapter 5 of these regulations.

Coal Preparation–chemical or physical processing and the cleaning, concentrating or other processing or preparation of coal.

Coal Preparation Plant–a facility where coal is subjected to chemical or physical processing or cleaning, concentrating or other processing or preparation. It includes facilities associated with coal preparation activities including, but not limited to, the following: loading facilities; storage and

stockpile facilities; sheds, shops and other buildings; water-treatment and water-storage facilities; settling basins and impoundments; and coal processing and other waste disposal areas.

Coal Processing Waste–earth materials which are separated and wasted from the product coal during cleaning, concentrating or other processing or preparation of coal.

Collateral Bond–an indemnity agreement in a sum certain executed by the permittee as principal which is supported by the deposit with the Commission of one or more of the following:

(a) a cash account, which shall be the deposit of cash in one or more federally-insured or equivalently protected accounts, payable only to the Commission upon demand;

(b) negotiable bonds of the United States, a state or a municipality, endorsed to the order of, and placed in the possession of, the Commission;

(c) negotiable certificates of deposit, made payable or assigned to the Commission and placed in its possession or held by a federally-insured bank;

(d) an irrevocable letter of credit of any bank organized or authorized to transact business in the United States, payable only to the Commission upon presentation;

(e) other investment-grade rated securities having a rating of AAA, AA or A or an equivalent rating issued by a nationally recognized securities rating service, endorsed to the order of, and placed in the possession of, the Commission.

Combustible Material-organic material that is capable of burning, either by fire or through oxidation, accompanied by the evolution of heat and a significant temperature rise.

Commission - the Mississippi Commission on Environmental Quality.

Community or Institutional Building–any structure, other than a public building or an occupied dwelling, which is used primarily for meetings, gatherings or functions of local civic organizations or other community groups; functions as an educational, cultural, historic, religious, scientific, correctional, mental health or physical health care facility; or is used for public services, including, but not limited to, water supply, power generation or sewage treatment.

Compaction–increasing the density of a material by reducing the voids between the particles, and generally accomplished by controlled placement and mechanical effort such as from repeated application of wheel, track or roller loads from heavy equipment.

Complete Application-an application for a permit, permit modification, permit renewal, or the transfer, assignment, or sale of permit rights or, where necessary, for the approval of coal exploration operations, which the Department determines to contain information addressing each application

requirement of the act and these regulations and to contain all information necessary to initiate formal processing and public review.

Complete and Accurate Application–an application for a permit, permit modification, permit renewal, or the transfer, assignment, or sale of permit rights or, where necessary, for the approval of coal exploration operations, which the Department determines to contain all information required under the act or these regulations that is necessary for the Permit Board to make its decision on permit issuance and for which all opportunity for public notice, comment and hearings required by the act or these regulations has been completed.

Cropland–land used for the production of adapted crops for harvest, alone or in a rotation with grasses and legumes, and includes row crops, small grain crops, hay crops, nursery crops, orchard crops and other similar specialty crops.

Cumulative Impact Area–the area, including the permit area, within which impacts resulting from the proposed operation may interact with the impacts of all anticipated mining on surface- and ground-water systems. Anticipated mining shall include, at a minimum, the entire projected lives through bond release of: the proposed operation; all existing operations; any operation for which a permit application has been submitted to the Permit Board; and all operations required to meet diligent development requirements for leased federal coal for which there is actual mine development information available.

Current Liabilities–debts or other obligations that must be paid or liquidated within a short period of time, usually a year. This shall also include dividends payable on preferred stock within one year.

Department - the Office of Geology of the Department of Environmental Quality.

Direct Financial Interest–ownership or part ownership by an employee of lands, stocks, bonds, debentures, warrants, partnership shares or other holdings and any other arrangement where the employee may benefit from his or her holdings in, or salary from, coal mining operations. Direct financial interests include employment, pensions, creditor, immovable property and other financial relationships.

Director–the director of the federal Office of Surface Mining Reclamation and Enforcement.

Disturbed Area–an area where vegetation, topsoil or overburden is removed or upon which topsoil, spoil, coal processing waste or noncoal waste is placed by surface coal mining operations. Those areas are classified as disturbed until reclamation is completed and the performance bond or other assurance of performance required by Subpart IV is released.

Diversion–a channel, embankment or other man-made structure constructed to divert water from one area to another.

Drinking, domestic or Residential Water Supply-Water received from well or spring and any appurtenant delivery system that provides water for direct human consumption or household use. Wells and springs that serve only agricultural, commercial or industrial enterprises are not included except to the extent the water supply is for direct human consumption or human sanitation or domestic use.

Downslope–the land surface between the projected outcrop of the lowest coalbed being mined along each highwall and a valley floor.

Embankment–an artificial deposit of material that is raised above the natural surface of the land and used to contain, divert or store water, support roads or railways, or for other similar purposes.

Employee– any person employed by any Office of the Mississippi Department of Environmental Quality who performs any function or duty under the act, the Executive Director, and any member of the Commission or Permit Board.

Ephemeral Stream–a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and which has a channel bottom that is always above the local water table.

Excess Spoil-spoil material disposed of in a location other than the mined-out area; provided, that spoil material used to achieve the approximate original contour or to blend the mined-out area with the surrounding terrain in accordance with §§5359-5365 and 5319(d) in non-steep slope areas shall not be considered excess spoil.

Executive Director - the Executive Director of the Mississippi Department of Environmental Quality, the Mississippi Commission on Environmental Quality, and the Mississippi Environmental Quality Permit Board.

Existing Structure–a structure or a facility used in connection with or to facilitate surface coal mining and reclamation operations for which construction begins prior to the approval of a state program or implementation of a federal program or federal lands program, whichever occurs first.

Exploration Operations Permit–a permit issued by the Permit Board to an applicant to conduct coal exploration as that term is defined in these regulations.

Extraction of Coal as an Incidental Part–the extraction of coal which is necessary to enable the accomplishment of the government-funded highway project construction that is necessitating the extraction. For the purposes of Chapter 7, only that coal extracted from within the right-of-way, in the case of a road, railroad, utility line or other such construction or within the boundaries of the area directly affected by other types of government-financed construction, may be considered incidental to that construction. Extraction of coal outside the right-of-way or boundary of the area directly affected by construction shall be subject to the requirements of the act and these regulations.

Federal Land Program–a program established by the secretary of interior pursuant to §523 of SMCRA to regulate surface coal mining and reclamation operations on federal lands.

Federal Lands–any lands, including mineral interests, owned by the United States, without regard to how the United States acquired ownership of the lands or which agency manages the lands, but does not include Indian lands.

Federal Violation Notice-a violation notice issued by OSM or by another agency or instrumentality of the United States.

Federal Office – the Office of Surface Mining Reclamation and Enforcement established under Title II of the federal act.

Fixed Assets–plants and equipment, but does not include land or coal in place.

Formal hearing - a hearing on the record, as recorded and transcribed by a court reporter, before the Commission or Permit Board where all parties to the hearing are allowed to present witnesses, cross-examine witnesses and present evidence for inclusion into the record as appropriate under rules promulgated by the Commission or Permit Board.

Fragile Lands–geographic areas containing natural, ecologic, scientific or aesthetic resources that could be damaged or destroyed by surface coal mining operations. Examples of fragile lands include: valuable habitats for fish or wildlife, critical habitats for endangered or threatened species of animals or plants, uncommon geologic formations, paleontological sites, national natural landmark sites, areas where mining may cause flooding, environmental corridors containing a concentration of ecologic and aesthetic features, areas of recreational value due to high environmental quality and buffer zones adjacent to the boundaries of areas where surface coal mining operations are prohibited under the Act and these regulations.

Fugitive Dust–that particulate matter not emitted from a duct or stack which becomes airborne due to the forces of wind or surface coal mining and reclamation operations or both. During surface coal mining and reclamation operations it may include emissions from haulroads, wind erosion of exposed surfaces, storage piles, spoil piles, reclamation operations and other activities in which material is either removed, stored, transported or redistributed.

Fund–the Abandoned Mine Reclamation Fund established pursuant to §401 of SMCRA.

Government-Financed Construction–construction funded 50 percent or more by funds appropriated from a government financing agency's budget or obtained from general revenue bonds, but shall not mean government financing agency guarantees, insurance, loans, funds obtained through industrial revenue bonds or their equivalent or in kind payments.

Government Financing Agency–a federal, state, county municipal or local unit of government, or a Department, bureau, agency or office of the unit which directly, or through another unit of government, finances construction.

Ground Cover–the area of ground covered by the combined aerial parts of vegetation and the litter that is produced naturally on site, expressed as a percentage of the total area of measurement.

Ground Water–subsurface water that fills available openings in rock or soil materials to the extent that they are considered water-saturated.

Half-Shrub–a perennial plant with a woody base whose annually produced stems die back each year.

Head-of-Hollow Fill–a fill structure consisting of any material, other than coal-processing waste and organic material, placed in the uppermost reaches of a hollow where side slopes of the existing hollow measured at the steepest point are greater than 20 degrees or the average slope of the profile of the hollow from the toe of the fill to the top of the fill is greater than 10 degrees. In fills with less than 250,000 cubic yards of material, associated with contour mining, the top surface of the fill will be at the elevation of the coal seam. In all other head-of-hollow fills, the top surface of the fill, when completed, is at approximately the same elevation as the adjacent ridge line, and no significant area of natural drainage occurs above the fill draining into the fill area.

Higher or Better Uses-postmining land uses that have a higher economic value or nonmonetary benefit to the landowner or the community than the premining land uses.

Highwall–the face of exposed overburden and coal in an open cut of a surface coal mining activity or for entry to underground mining activities.

Historically Used for Cropland–

(a) lands that have been used for cropland for any five or more years out of the 10 years immediately preceding the acquisition, including purchase, lease or option of the land for the purpose of conducting or allowing through resale, lease or option the conduct of surface coal mining and reclamation operations;

(b) lands that the Department determines, on the basis of additional cropland history of the surrounding lands and the lands under consideration, that the permit area is clearly cropland but falls outside the specific five-year-in-10 criterion, in which case the regulations for prime farmland may be applied to include more years of cropland history only to increase the prime farmland acreage to be preserved; or

(c) lands that would likely have been used as cropland for any five out of the last 10 years immediately preceding such acquisition, but for the same fact of ownership or control of the land unrelated to the productivity of the land.

Historic Lands–historic or cultural districts, places, structures or objects, including archaeological sites, National Historic Landmark sites, sites listed on or eligible for listing on a State or National Register of Historic Places, sites having religious or cultural significance to Native Americans or religious groups or sites for which historic designation is pending.

Hydrologic Balance–the relationship between the quality and quantity of water inflow to, water outflow from and water storage in a hydrologic unit such as a drainage basin, aquifer, soil zone, lake or reservoir. It encompasses the dynamic relationships between precipitation, runoff, evaporation and changes in surface- and ground-water storage.

Hydrologic Regime–the entire state of water movement in a given area. It is a function of the climate and includes the phenomena by which water first occurs as atmospheric water vapor, passes into a liquid or solid form, falls as precipitation, moves along or into the ground surface and returns to the atmosphere as vapor by means of evaporation and transpiration.

Immediate Mining Area-as used in the definition of *Road* in this section, means an area of mining activity or pre-mining construction activity covered by a construction stormwater pollution prevention plan or, after construction is completed, situated so that surface water run-off will be routed to an approved water control structure such as a sedimentation pond. Routes of travel within the immediate mining area will be either: consumed by mining; reclaimed; or have design plans submitted for approval as permanent postmine features prior to phase II bond release.

Imminent Danger to the Health and Safety of the Public–the existence of any condition or practice, or any violation of a permit or other requirement of these regulations in a surface coal mining and reclamation operation, which condition, practice or violation could reasonably be expected to cause substantial physical harm to persons outside the permit area before such condition, practice or violation can be abated. A reasonable expectation of death or serious injury before abatement exists if a rational person, subjected to the same conditions or practices giving rise to the peril, would not expose himself or herself to the danger during the time necessary for abatement.

Impounding Structure–a dam, embankment or other structure used to impound water, slurry or other liquid or semi-liquid material.

Impoundment–a closed basin, naturally formed or artificially built, which is dammed or excavated for the retention of water, sediment or waste.

Indian Lands–all lands, including mineral interests, within the exterior boundaries of any federal Indian reservation, notwithstanding the issuance of any patent, and including rights-of-way, and all lands including mineral interests held in trust for or supervised by an Indian tribe.

Indian Tribe–any Indian tribe, band, group or community located within the state of Mississippi having a governing body recognized by the secretary of interior.

Indirect Financial Interest–the same financial relationship as for direct ownership, but where the employee reaps the benefits of such interests, including interests held by his or her spouse, minor child and other relatives, including in-laws, residing in the employee's home. The employee will not be deemed to have an indirect financial interest if there is no relationship between the employee's functions or duties and the coal mining operation in which the spouse, minor children or other resident relatives hold a financial interest.

In Situ Processes–activities conducted on the surface or underground in connection with in-place processing of coal. The term includes, but is not limited to, in situ gasification, in situ leaching, slurry mining, solution mining, borehole mining and fluid recovery mining.

Interested Party - any person claiming an interest relating to the surface coal mining operation and who is so situated that the person may be affected by that operation, or in the matter of regulations promulgated by the Commission, any person who is so situated that the person may be affected by the action.

Intermittent Stream–a stream or reach of a stream that drains a watershed of at least one square mile or a stream or reach of a stream that is below the local water table for at least some part of the year and obtains its flow from surface runoff and ground-water discharge.

Irreparable Damage to the Environment–any damage to the environment that cannot be corrected by actions of the applicant.

Knowingly–that an individual knew or had reason to know in authorizing, ordering or carrying out an act or omission on the part of a corporate permittee that such act or omission constituted a violation, failure or refusal.

Land Use–specific use or management-related activity, rather than the vegetation or cover of the land. Land uses may be identified in combination when joint or seasonal uses occur. Changes of land use or uses from one of the following categories to another shall be considered as a change to an alternative land use which is subject to approval by the Permit Board:

(a) *Cropland*–land used for the production of adapted crops for harvest, alone or in a rotation with grasses and legumes, and includes row crops, small grain crops, hay crops, nursery crops, orchard crops and other similar specialty crops. Land used for facilities in support of cropland farming operations which is adjacent to or an integral part of these operations is also included for purposes of these land use categories.

(b) *Pastureland* or *Land Occasionally Cut for Hay*–land used primarily for the long-term production of adapted, domesticated forage plants to be grazed by livestock or occasionally cut and cured for livestock feed. Land used for facilities in support of pastureland or land occasionally cut for hay which is adjacent to or an integral part

of these operations is also included.

(c) *Grazingland*–includes both grasslands and forest lands where the indigenous vegetation is actively managed for grazing, browsing or occasional hay production. Land used for facilities in support of ranching operations which is adjacent to or an integral part of these operations is also included.

(d) *Forestry*–land used or managed for the long-term production of wood, wood fiber or wood derived products. Land used for facilities in support of forest harvest and management operations which is adjacent to or an integral part of these operations is also included.

(e) *Residential*–includes single- and multiple-family housing, mobile home parks and other residential lodgings. Land used for facilities in support of residential operations which is adjacent to or an integral part of these operations is also included. Support facilities include, but are not limited to, vehicle parking and open space that directly relate to the residential use.

(f) *Industrial/Commercial*–land used for:

(1) extraction or transformation of materials for fabrication of products, wholesaling of products or for long-term storage of products. This includes all heavy and light manufacturing facilities such as lumber and wood processing, chemical manufacturing, petroleum refining and fabricated metal products manufacture. Land used for facilities in support of these operations which is adjacent to or an integral part of that operation is also included. Support facilities include, but are not limited to, all rail, road and other transportation facilities.

(2) retail or trade of goods or services, including hotels, motels, stores, restaurants and other commercial establishments. Land used for facilities in support of commercial operations which is adjacent to or an integral part of these operations is also included. Support facilities include, but are not limited to, parking, storage or shipping facilities.

(g) *Recreation*–land used for public or private leisure-time use, including developed recreation facilities such as parks, camps and amusement areas, as well as areas for less intensive uses such as hiking, canoeing and other undeveloped recreational uses.

(h) *Fish and Wildlife Habitat*–land dedicated wholly or partially to the production, protection or management of species of fish or wildlife.

(I) *Developed Water Resources*–land used for storing water for beneficial uses such as

stockponds, irrigation, fire protection, flood control and water supply.

(j) *Undeveloped Land* or *No Current Use or Land Management*–land that is undeveloped or, if previously developed, land that has been allowed to return naturally to an undeveloped state or has been allowed to return to forest through natural succession.

Liabilities-obligations to transfer assets or provide services to other entities in the future as a result of past transactions.

MSHA-the federal Mine Safety and Health Administration.

Modification - any change to a permit or reclamation plan that significantly changes, or has the reasonable potential significantly to change, the effect of the mining operation on either those persons impacted by the permitted operations or on the environment.

Moist Bulk Density–the weight of soil (oven dry) per unit volume. Volume is measured when the soil is at field moisture capacity (one third bar moisture tension). Weight is determined after drying the soil at 105 C.

Monitoring–as used in Chapter 27, the collection of environmental data by either continuous or periodic sampling methods.

Mulch–vegetation residues or other suitable materials that aid in soil stabilization and soil moisture conservation, thus providing micro-climatic conditions suitable for germination and growth.

Natural Hazard Lands–geographic areas in which natural conditions exist which pose or, as a result of surface coal mining operations, may pose a threat to the health, safety or welfare of people, property or the environment, including areas subject to landslides, cave-ins, large or encroaching sand dunes, severe wind or soil erosion, frequent flooding, avalanches and areas of unstable geology.

Net Worth–total assets minus total liabilities; equivalent to owner's equity.

Net Profit–the bottom line of the income statement after taxes, including taxes based on income, adjustments, all extraordinary income and expense, but before preferred and common stock dividends.

Noxious Plants–species that have been included on official Mississippi state lists of noxious plants.

Occupied Dwelling–any building that is currently being used on a regular or temporary basis for human habitation.

Office of Geology - the Office of Geology and Energy Resources of the Department, as created by

Miss. Code Ann. § 49-2-7(a).

Operator–any person, partnership or corporation engaged in coal mining who removes or intends to remove more than 250 tons of coal from the earth by surface coal mining methods within 12 consecutive calendar months in any one location.

OSM or OSMRE-the federal Office of Surface Mining Reclamation and Enforcement, which was established to administer the Surface Mining Control and Reclamation Act of 1977 (pub. L. 95-87).

Other Treatment Facilities–any chemical treatments, such as flocculation or neutralization, or mechanical structures, such as clarifiers or precipitators, that have a point-source discharge and that are utilized to prevent additional contributions of dissolved or suspended solids to streamflow or runoff outside the permit area, or to comply with all applicable state and federal water-quality laws and regulations.

Outslope–the face of the spoil or embankment sloping downward from the highest elevation to the toe.

Overburden–material of any nature, consolidated or unconsolidated, that overlies a coal deposit, excluding topsoil.

Owned or Controlled and *Owns or Controls*–any one or a combination of the relationships specified in a and b below.

(a)

(1) being a permittee of a surface coal mining operation;

(2) based on instrument of ownership or voting securities, owning of record in excess of 50 percent of an entity; or

(3) having any other relationship which gives one person authority directly or indirectly to determine the manner in which an applicant, an operator or other entity conducts surface coal mining operations.

(b) The following relationships are presumed to constitute ownership or control unless a person can demonstrate that the person subject to the presumption does not in fact have the authority directly or indirectly to determine the manner in which the relevant surface coal mining operation is conducted:

(1) being an officer or director of an entity;

(2) being the operator of a surface coal mining operation;

(3) having the ability to commit the financial or real property assets or working resources of an entity;

(4) being a general partner in a partnership;

(5) based on the instruments of ownership or the voting securities of a corporate entity, owning of record 10 through 50 percent of the entity; or

(6) owning or controlling coal to be mined by another person under a lease, sublease or other contract and having the right to receive such coal after mining or having authority to determine the manner in which that person or another person conducts a surface coal mining operation.

Ownership or Control Link-any relationship included in the definition of "owned or controlled" or "owns or controls" or in the violations review provisions of §3113 (b). It includes any relationship presumed to constitute ownership or control under the definition of "owned or controlled" or "owns or controls," unless such presumption has been successfully rebutted under the provisions of §§3135 and 3137 or under the provisions of chapter 33.

Parent Corporation- a corporation which owns or controls the applicant.

Perennial Stream–a stream or part of a stream that flows continuously during all of the calendar year as a result of ground-water discharge or surface runoff. The term does not include intermittent stream or ephemeral stream.

Performance Bond–a surety bond, collateral bond, letter or letters of credit, or self-bond, or a combination thereof, by which a permittee assures faithful performance of all the requirements of the act, these regulations, this program and the requirements of the permit and reclamation plan.

Permanent Diversion–a diversion remaining after surface coal mining and reclamation operations are completed which has been approved for retention by the Permit Board.

Permanent Impoundment–an impoundment which is approved by the Permit Board and, if required, by other state and federal agencies, for retention as part of the postmining land use.

Permit–a permit to conduct surface coal mining and reclamation operations issued by the Permit Board. The term does not include exploration permits.

Permit Area– the area of land, indicated on the approved map submitted by the operator with his or her application, required to be covered by the operator's performance bond under these regulations and which shall include the area of land upon which the operator proposes to conduct surface coal mining and reclamation operations under the permit, including all disturbed areas; provided, that areas adequately bonded under another valid permit may be excluded from the permit area.

Permit Board - the Mississippi Environmental Quality Permit Board created by Miss. Code Ann. §49-17-28.

Permittee–a person holding a permit or persons required to have a permit to conduct surface coal mining and reclamation operations.

Person–an individual, partnership, association, society, joint venture, joint stock company, firm, company, corporation, cooperative or other business organization and any agency, unit, or instrumentality of federal, state or local government including any publicly owned utility or publicly owned corporation of federal state or local government.

Precipitation Event–a quantity of water resulting from drizzle, rain, snow, sleet or hail in a limited period of time. It may be expressed in terms of recurrence interval. As used in these regulations, precipitation event also includes that quantity of water emanating from snow cover as snow-melt in a limited period of time.

Prime Farmland– farmland as defined by the United States Secretary of Agriculture on the basis of factors such as moisture availability, temperature regime, chemical balance, permeability, surface layer composition, susceptibility to flooding and erosion characteristics, and which historically have been used for intensive agricultural purposes, and as published in the federal register.

Principal Shareholder–any person who is the record or beneficial owner of 10 percent or more of any class of voting stock.

Probable Cumulative Impacts–as used in Chapter 25, the expected total qualitative and quantitative, direct and indirect effects of mining and reclamation activities on the hydrologic regime.

Probable Hydrologic Consequence–as used in Chapter 25, the projected result of proposed surface coal mining and reclamation operations which may reasonably be expected to change the quantity or quality of the surface water and ground water, the surface- or ground-water flow, timing and pattern, the stream channel conditions, and the aquatic habitat on the permit area and other affected areas.

Prohibited Financial Interest–any direct or indirect financial interest in any coal mining operation.

Property to be Mined–both the surface and subsurface areas underneath lands which are within the permit area.

Public Building–any structure that is owned by a public agency or used principally for public business, meetings or other group gatherings.

Public Hearing, informal hearing, or public meeting - a public forum organized by the Commission, Department or Permit Board for the purpose of providing information to the public regarding a

surface coal mining and reclamation operation or regulations proposed by the Commission and at which members of the public are allowed to make comments or ask questions or both of the Commission, Department or Permit Board.

Public Office–a facility under the direction and control of a governmental entity which is open to public access on a regular basis during reasonable business hours.

Public Park–an area dedicated or designated by a federal, state or local agency for primarily public recreational use, whether or not such use is limited to certain times or days, including any land leased, reserved or held open to the public because of that use. The term also includes any publicly-owned park as defined in 30 CFR §761.5.

Public Road–a road:

(a) which has been designated as a public road pursuant to the laws of the jurisdiction in which it is located;

(b) which is maintained with public funds in a manner similar to other public roads of the same classification within the jurisdiction;

(c) for which there is substantial (more than incidental) public use; and

(d) which meets road construction standards for other public roads of the same classification in the local jurisdiction.

Quick Assets–cash and current assets that can be quickly turned into cash.

Rangeland–land on which the natural potential (climax) plant cover is principally native grasses, forbs and shrubs valuable for forage. This land includes natural grasslands and savannahs, such as prairies, and juniper savannahs, such as brushlands. Except for brush control, management is primarily achieved by regulating the intensity of grazing and season of use.

Recharge Capacity–the ability of the soils and underlying materials to allow precipitation and runoff to infiltrate and reach the zone of saturation.

Reclamation–those actions taken to restore mined land as required by these regulations to a post-mining land use approved by the Permit Board.

Recurrence Interval–the interval of time in which a precipitation event is expected to occur once, on the average. For example, a 10-year, 24-hour precipitation event would be that 24-hour precipitation event expected to occur on the average once in 10 years.

Reference Area–a land unit maintained under appropriate management for the purpose of measuring

vegetation ground cover, productivity and plant species diversity that are produced naturally by approved crop production methods. Reference areas must be representative of geology, soil, slope and vegetation in the permit area.

Refuse Pile–a surface deposit of coal mine waste that does not impound water, slurry or other liquid or semiliquid material.

Regional Director–a regional director of the federal office or a regional director's representative.

Registered Professional Engineer- shall mean a person who has met the qualifications as required under §73-13-23(1) and who has been issued a certificate of registration by the Mississippi State Board of Registration for Professional Engineers and Land Surveyors.

Registered Professional Geologist- means a geologist who has met the academic and experience qualifications established by the Mississippi Board of Professional Geologists and has been issued a certificate of registration as a registered professional geologist by the Mississippi Board of Professional Geologists pursuant to §73-63 et sec.

Regulatory Authority-the Department or agency in each State which has primary responsibility at the State level for administering the initial regulatory program under Section 502 of SMCRA, or the State agency responsible for administering the State regulatory program, or the Secretary when the Secretary is directly administering the requirements of SMCRA, or the Secretary when administering a Federal program or Federal lands program or when enforcing a State program pursuant to section 521(b) of SMCRA.

Regulatory Program- any State or Federal program or, in a State with no approved State or Federal program and coal exploration and surface coal mining and reclamation operations are on Federal lands, the requirements of Subchapters A, F, G, J, K, L, M, and P of 30 CFR Chapter VII.

Renewable Resource Lands–aquifers and areas for the recharge of aquifers and other underground waters; areas for agricultural or silvicultural production of food and fiber; and grazing lands.

Replacement of Water Supply-with respect to protected water supplies contaminated, diminished, or interrupted by coal mining operations, provision of water supply on both a temporary and permanent basis equivalent to premining quantity and quality. Replacement includes provision of an equivalent water delivery system and payment of operation and maintenance costs in excess of customary and reasonable delivery costs for premining water supplies.

(a) Upon agreement by the permittee and the water supply owner, the obligation to pay such operation and maintenance costs may be satisfied by a one-time payment in an amount which covers the present worth of the increased annual operation and maintenance costs for a period agreed to by the permittee and the water supply owner.

(b) If the affected water supply was not needed for the land use in existence at the time of loss, contamination, or diminution, and if the supply is not needed to achieve the postmining land use, replacement requirements may be satisfied by demonstrating that a suitable alternative water source is available and could feasiblely be developed. If the latter approach is selected, written concurrence must be obtained from the water supply owner.

Retained Earnings–stockholder's equity that has arisen from retained assets from earnings in the business. This shall include only earnings from normal operations and not gains from such transactions as the sale of plant assets or investments.

Return on Investment–the relation of net profit for the last yearly period to ending net worth.

Revision -any change to the permit or reclamation plan that does not significantly change the effect of the mining operation on either those persons impacted by the permitted operations or on the environment, including, but not limited to, incidental boundary changes to the permit area or a departure from or change within the permit area, incidental changes in the mining method or incidental changes in the reclamation plan.

Road–a surface right-of-way for purposes of travel by land vehicles used in surface coal mining and reclamation operations, coal exploration, or development operations. A road consists of the entire area within the right-of-way, including the roadbed, shoulders, parking and side areas, approaches, structures, ditches and surface. The term includes access and haulroads constructed, used, reconstructed, improved or maintained for use in surface coal mining and reclamation operations, coal exploration, or development operations, including use by coal hauling vehicles to and from transfer, processing or storage areas. The term does not include ramps and routes of travel within the immediate mining area or within spoil or coal mine waste disposal areas.

Safety Factor–the ratio of the available shear strength to the developed shear stress, or the ratio of the sum of the resisting forces to the sum of the loading or driving forces, as determined by accepted engineering practices.

Secretary of Interior–the secretary of the United States Department of the Interior.

Sedimentation Pond–an impoundment used to remove solids from water in order to meet water quality standards or effluent limitations before the water leaves the permit area.

Self-Bond–an indemnity agreement in a sum certain payable to the Commission, with or without separate surety, and executed by the applicant or by the applicant and any corporate guarantor.

Significant Forest Cover–an existing plant community consisting predominantly of trees and other woody vegetation.

Significant, Imminent Environmental Harm to Land, Air or Water Resources–

(a) An environmental harm is an adverse impact on land, air or water resources which include plant and animal life;

(b) An environment harm is imminent, if a condition, practice or violation exists which is causing harm or may reasonably be expected to cause harm before the end of the reasonable abatement time that would be set under Miss. Code Ann. § 53-9-69(1)(c)(i); or

(c) An environmental harm is significant if it is a harm which is appreciable and not immediately repairable.

Significant Recreational, Timber, Economic or Other Values Incompatible with Surface Coal Mining Operations–those values to be evaluated for their significance which could be damaged and are not capable of existing together with surface coal mining operations because of the undesirable effects mining would have on those values, either on the area included in the permit application or on other affected areas. Those values to be evaluated for their importance include:

(a) recreation, including hiking, boating, camping, skiing or other related outdoor activities;

(b) timber management and silviculture;

(c) agriculture, aquaculture or production of other natural, processed or manufactured products which enter commerce; and

(d) scenic, historic, archaeologic, esthetic, fish, wildlife, plants or cultural interests.

Siltation Structure–a sedimentation pond, a series of sedimentation ponds or other treatment facility.

Slope–the average inclination of a surface, measured from the horizontal, generally expressed as the ratio of a unit of vertical distance to a given number of units of horizontal distance (e.g., 1v:5h). It may also by expressed as a percent or in degrees.

SMCRA-the federal Surface Mining Control and Reclamation Act of 1977 (Pub. L. 95-87), as amended.

Soil Horizons–contrasting layers of soil parallel or nearly parallel to the land surface. Soil horizons are differentiated on the basis of field characteristics and laboratory data. The four major soil horizons are:

(a) *A Horizon*–the uppermost mineral layer, often called the surface soil. It is the part

of the soil in which organic matter is most abundant and leaching of soluble or suspended particles is typically the greatest.

(b) *E Horizon* - the layer commonly near the surface below an A horizon and above a B horizon. An E horizon is most commonly differentiated from an overlying A horizon by a lighter color and generally has measurably less organic matter than the A horizon. An E horizon is most commonly differentiated from an underlying B horizon in the same sequum by color of higher value or lower chrome, by coarser texture, or by a combination of these properties.

(c) *B Horizon*–the layer that typically is immediately beneath the E horizon and often called the subsoil. This middle layer commonly contains more clay, iron or aluminum than the A or C horizon.

(d) *C Horizon*–the deepest layer of the soil profile. It consists of loose material or weathered rock that is relatively unaffected by biologic activity.

Soil Survey–a field and other investigation, resulting in a map showing the different kinds of soils and an accompanying report that describes, classifies and interprets such soils for use. Soil surveys must meet the standards of the National Cooperative Soil Survey as incorporated by reference in §2907 (a) (1).

Spoil–overburden that has been removed during surface coal mining operations.

Stabilize–to control movement of soil, spoil piles or areas of disturbed earth by modifying the geometry of the mass or by otherwise modifying physical or chemical properties, such as by providing a protective surface coating.

State Geologist - the head of the Office of Geology and Energy Resources of the Department.

State Regulatory Authority– the Mississippi Department of Environmental Quality.

State Violation Notice-a violation notice issued by the Department, the Commission, the state regulatory authority of another state, or by another agency or instrumentality of State government.

Steep Slope–any slope of more than 20 degrees or such lesser slope as may be designated by the Department after consideration of soil, climate and other characteristics of a region.

Substantial Legal and Financial Commitments–significant investments that have been made on the basis of a long-term coal contract in power plants, railroads, coal-handling, preparation, extraction or storage facilities and other capital intensive activities. Costs of acquiring the coal in place or the right to mine it alone without other significant investments, as described above, are not sufficient to constitute substantial legal and financial commitments.

Substantially Disturb–for purposes of coal exploration, to significantly impact land or water resources by blasting; by removal of vegetation, topsoil or overburden; by construction of roads or other access routes; by placement of excavated earth or waste material on the natural land surface or by other such activities; or to remove more than 250 tons of coal.

Successor in Interest–any person who succeeds to rights granted under a permit by transfer, assignment or sale of those rights.

Surety Bond–an indemnity agreement in a sum certain payable to the Commission executed by the permittee which is supported by the performance guarantee of a corporation licensed to do business as a surety in this state.

Surface Coal Mining Operations – shall have the same definition provided in Miss. Code Ann. § 53-9-7(z).

Surface Coal Mining and Reclamation Operations–surface coal mining operations and all activities necessary or incidental to the reclamation of such operations. This term includes the term surface coal mining operations.

Surface Mining Activities–those surface coal mining and reclamation operations incident to the extraction of coal from the earth by removing the materials over a coal seam before recovering the coal, by auger coal mining or by recovery of coal from a deposit that is not in its original geologic location.

Suspended Solids or Nonfilterable Residue, Expressed as Milligrams per Liter–organic or inorganic materials carried or held in suspension in water which are retained by a standard glass fiber filter in the procedure outlined by the Environmental Protection Agency's regulations for waste water analyses (40 CFR 136).

Tangible Net Worth–net worth minus intangibles such as goodwill and rights to patents or royalties.

Temporary Diversion–a diversion of a stream or overland flow which is used during coal exploration or surface mining and reclamation operations and not approved by the Department to remain after reclamation as part of the approved post-mining land use.

Temporary Impoundment–an impoundment used during surface coal mining and reclamation operations, but not approved by the Department to remain as part of the approved postmining land use.

Ton–2,000 pounds avoirdupois (0.90718 metric ton).

Topsoil–the A and E soil horizon layers of the four master soil horizons.

Toxic-Forming Materials–earth minerals or wastes which, if acted upon by air, water, weathering or micro-biological processes, are likely to produce chemical or physical conditions in soils or water that are detrimental to biota or uses of water.

Toxic Mine Drainage–water that is discharged from active or abandoned mines or other areas affected by coal exploration or development operations or surface coal mining and reclamation operations, which contains a substance that through chemical action or physical effects is likely to kill, injure or impair biota commonly present in the area that might be exposed to it.

Transfer, Assignment or Sale of Rights–a change in ownership or other effective control over the right to conduct surface coal mining operations under a permit issued by the Permit Board.

Unanticipated event or condition - an event or condition related to prior mining activity which arises from a surface coal mining and reclamation operation on lands eligible for remining and was not contemplated by the applicable permit.

Unwarranted Failure to Comply – the failure of a permittee to prevent or abate the occurrence of any violation of his permit or any requirement of these regulations due to indifference, lack of diligence or lack of reasonable care.

Valid Rights - as used in § 53-9-71(4) of the Act means Valid Existing Rights.

Valid Existing Rights - means a set of circumstances under which a person may, subject to Permit Board approval, conduct surface coal mining operations on lands where 30 U.S.C. 1272(e), 30 C.F.R. § 761.11, Miss. Code Ann. § 53-9-71, or § 1105 of these regulations would otherwise prohibit such operations. Possession of valid existing rights only confers an exception from the prohibitions of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, and § 1105 of these regulations. A person seeking to exercise valid existing rights must comply with all other pertinent requirements of the SMCRA, the Act, federal regulations promulgated under SMCRA, and these regulations.

> (a) Property rights demonstration. Except as provided in paragraph (c) of this definition, a person claiming valid existing rights must demonstrate that a legally binding conveyance, lease, deed, contract, or other document vests that person, or a predecessor in interest, with the right to conduct the type of surface coal mining operations intended. This right must exist at the time that the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. § 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations. Applicable Mississippi law will govern interpretation of documents relied upon to establish property rights, unless Federal law provides otherwise. If no applicable Mississippi law exists, custom and generally accepted usage at the time and place that the documents came into existence will govern their interpretation.

(b) Except as provided in paragraph (c) of this definition, a person claiming valid existing rights also must demonstrate compliance with one of the following standards:

(1) Good faith/all permits standard. All permits and other authorizations required to conduct surface coal mining operations had been obtained, or a good faith effort to obtain all necessary permits and authorizations had been made, before the land came under the protection of 30 C.F.R. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations. At a minimum, an application must have been submitted for any permit required under the Act and these regulations.

(2) Needed for and adjacent standard. The land is needed for and immediately adjacent to a surface coal mining operation for which all permits and other authorizations required to conduct surface coal mining operations had been obtained, or a good faith attempt to obtain all permits and authorizations had been made, before the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations. To meet this standard, a person must demonstrate that prohibiting expansion of the operation onto that land would unfairly impact the viability of the operation as originally planned before the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations. Except for operations in existence before August 3, 1977, or for which a good faith effort to obtain all necessary permits had been made before August 3, 1977, this standard does not apply to lands already under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations when the regulatory authority approved the permit for the original operation or when the good faith effort to obtain all necessary permits for the original operation was made. In evaluating whether a person meets this standard, the Permit Board may consider factors such as:

(i) The extent to which coal supply contracts or other legal and business commitments that predate the time that the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 depend upon use of that land for surface coal mining operations;

(ii) The extent to which plans used to obtain financing for the operation before the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations rely upon use of that land for surface coal mining operations;

(iii) The extent to which investments in the operation before the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 rely upon use of that land for surface coal mining operations; and

(iv) Whether the land lies within the area identified on the life-of-mine map submitted pursuant to § 1907(f) before the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105.

(c) Roads. A person who claims valid existing rights to use or construct a road across the surface of lands protected by 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 must demonstrate that one or more of the following circumstances exist if the road is included within the definition of "surface coal mining operations" in § 105 of these regulations:

(1) The road existed when the land upon which it is located came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105, and the person has a legal right to use the road for surface coal mining operations.

(2) A properly recorded right of way or easement for a road in that location existed when the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105, and, under the document creating the right of way or easement, and under subsequent conveyances, the person has a legal right to use or construct a road across the right of way or easement for surface coal mining operations.

(3) A valid permit for use or construction of a road in that location for surface coal mining operations existed when the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105.

(4) Valid existing rights exist under paragraphs (a) and (b) of this definition.

Valley Fill–a fill structure consisting of any material other than coal waste and organic material that is placed in a valley where side slopes of the existing valley measured at the steepest point are greater than 20 degrees or the average slope of the profile of the valley from the toe of the fill to the top of the fill is greater than 10 degrees.

Violation, Failure or Refusal–

(a) a violation of a condition of a permit issued pursuant to the act and these regulations; or

(b) a failure or refusal to comply with any order issued by the Commission.

Violation Notice– any written notification from a governmental entity, whether by letter, memorandum, judicial or administrative pleading, or other written communication, of a violation

of the Act; any Federal rule or regulation promulgated pursuant thereto; a State program; or any Federal or State law, rule, or regulation pertaining to air or water environmental protection in connection with a surface coal mining operation. It includes, but is not limited to, a notice of violation; an imminent harm cessation order; a failure-to-abate cessation order; a final order, bill, or demand letter pertaining to a delinquent civil penalty; a bill or demand letter pertaining to delinquent abandoned mine reclamation fees; and a notice of bond forfeiture, where one or more violations upon which the forfeiture was based have not been corrected.

Water Table–the upper surface of a zone of saturation, where the body of ground water is not confined by an overlying impermeable zone.

Willfully–that an individual acted: (1) either intentionally, voluntarily or consciously; and (2) with intentional disregard or plain indifference to legal requirements in authorizing, ordering or carrying out a corporate permittee's action or omission that constituted a violation, failure or refusal.

Willful Violation–an act or omission which violates the act, state or federal laws or regulations or individual permit conditions, committed by a person who intends the result which actually occurs.

Working Capital–the excess of the operator's current assets over its current liabilities.

§107. Applicability

(a) These regulations apply to all coal exploration and surface coal mining and reclamation operations, except:

(1) the extraction of coal by a landowner for his or her own noncommercial use from land owned or leased by the landowner. Noncommercial use does not include the extraction of coal by one unit of an integrated company or other business or nonprofit entity which uses the coal in its own manufacturing or power plants;

(2) the extraction of coal as an incidental part of federal, state or local government-financed highway or other construction in accordance with Chapter 7 of these regulations;

(3) the extraction of coal not in connection with a surface coal mine and incidental to the extraction of other minerals where coal does not exceed $16^{2}/_{3}$ percent of the total tonnage of coal and other minerals removed for purposes of commercial use or sale;

(4) the extraction of coal on Indian lands in accordance with 25 CFR 177, Subpart B;

(5) coal exploration on federal lands outside a permit area;

(b) The Permit Board may, on its own initiative and shall, within a reasonable time of a request from any person who intends to conduct surface coal mining operations, make a written determination whether the operation is exempt under this Section. The Permit Board shall give reasonable notice of the request to interested persons. Prior to the time a determination is made, any person may submit, and the Permit Board shall consider, any written information relevant to the determination. A person requesting that an operation be declared exempt shall have the burden of establishing the exemption. If a written determination that an operation is exempt is reversed through subsequent administrative or judicial action, any person who, in good faith, has made a complete and accurate request for an exemption and relied upon the determination, shall not be cited for violations which occurred prior to the date of the reversal.

(c) The Permit Board may terminate its jurisdiction under the regulatory program over the reclaimed site of a completed surface coal mining and reclamation operation, or increment thereof, when it determines in writing that under the permanent program all requirements imposed under the applicable regulatory program have been successfully completed or, where a performance bond was required, the Permit Board has made a final decision in accordance with Subpart IV to release the performance bond fully;

(d) Following a termination under §107 (c), the Permit Board may reassert jurisdiction under the regulatory program over a site if it is demonstrated that the bond release or written determination referred to in §107 (c) was based upon fraud, collusion or misrepresentation of a material fact.

§109. Petitions to Initiate Rulemaking

(a) Any person may petition the Commission to initiate a proceeding for the issuance, amendment or repeal of any regulation under the act. The petition shall be submitted to the State Geologist.

(b) The petition shall be a concise statement of facts, technical justification and the law which require issuance, amendment or repeal of a regulation under the act and shall indicate whether the petitioner desires a public hearing.

(c) Upon receipt of the petition, the Commission shall determine if the petition sets forth facts, technical justification or law which may provide a reasonable basis for issuance, amendment or repeal of a regulation. Facts, technical justification or law previously considered in a petition or rulemaking on the same issue shall not provide a reasonable basis. If the Commission determines that the petition has a reasonable basis, a notice shall be published seeking comments from the public on the proposed change. The Commission may hold a public hearing, may conduct an investigation or take other action to determine whether the petition should be granted.

(d) Within 90 days from receipt of the petition, the Commission shall issue a written decision either granting or denying the petition.

1. If the petition is granted, the Commission shall initiate a rulemaking proceeding in accordance with Mississippi law.

2. If the petition is denied, the Commission shall notify the petitioner in writing, setting forth the reasons for denial.

(e) The petitioners may request a formal hearing on the Commission's denial of the petition pursuant to §53-9-77.

§111. Notice of Citizen Suits

(a) A person who intends to initiate a civil action on his or her own behalf under §53-9-67 shall give notice of intent to do so, in accordance with this Section.

(b) Notice shall be given by certified mail to the Executive Director, chief legal counsel of the Department, and the Attorney General in all cases. A copy of the notice shall also be sent by first class mail to the regional director of the federal Office of Surface Mining if the complaint involves or relates to surface coal mining and reclamation operations in a specific region of the federal office.

(c) Notice shall be given by certified mail to the alleged violator, if the complaint alleges a violation of the act or any regulation, order, or permit issued under the act.

(d) Service of notice under this Section is complete upon receipt by the Executive Director, chief legal counsel, and the Attorney General. Service is complete on the alleged violator by mailing to the most recent address of the person being notified, as reflected in the records of the Department.

(e) A person giving notice regarding an alleged violation shall state, to the extent known:

1. sufficient information to identify the provision of the act, regulation, order or permit allegedly violated;

2. the act or omission alleged to constitute a violation;

3. the name, address and telephone numbers of the person or persons responsible for the alleged violation;

4. the date, time and location of the alleged violation;

5. the name, address and telephone number of the person giving notice; and

6. the name, address and telephone number of legal counsel, if any, of the person giving notice.

(f) A person giving notice of an alleged failure by the state, a state instrumentality, or a state agency to perform a mandatory act or duty under the act shall state, to the extent known:

1. the provision of the act containing the mandatory act or duty allegedly not performed;

2. sufficient information to identify the omission alleged to constitute the failure to perform a mandatory act or duty under the act;

3. the name, address and telephone number of the person giving notice; and

4. the name, address and telephone number of legal counsel, if any, of the person giving notice.

§113. Availability of Records

Records required by the act to be made available to the public by the Department, the Commission, or the Permit Board shall be retained at the Department.

§115. Computation of Time

(a) Except as otherwise provided, computation of time under these regulations is based on calendar days.

(b) In computing any period of prescribed time, the day on which the designated period of time begins is not included. The last day of the period is included unless it is a Saturday, Sunday or legal holiday on which the Department is not open for business, in which event the period runs until the end of the next day which is not a Saturday, Sunday or legal holiday.

(c) Intermediate Saturdays, Sundays and legal holidays are excluded from the computation when the period of prescribed time is seven days or less.

Chapter 3. Permanent Regulatory Program

§301. Authority

The Department is authorized to administer the requirements of the permanent regulatory program.

§303. Applicability

(a) No person shall open, develop, engage in, carry out or continue on lands within the state any new or existing surface coal mining operations without a permit issued by the Permit Board.

(b) The requirements of these regulations shall be effective and shall apply to each surface coal mining and reclamation operation which is required to obtain a permit under the act, on the earliest date upon which these regulations require a permit to be obtained, except as is provided in §303 (c).

(c) Exemptions to §303 (b).

(1) Each structure used in connection with or to facilitate a coal exploration, development or surface coal mining and reclamation operation shall comply with the performance standards and the design requirements of these regulations.

(A) A structure which existed on the date an application for a surface mining and reclamation permit became complete and which meets the performance standards of these regulations but does not meet the design requirements of these regulations may be exempted from meeting those design requirements by the Permit Board. The Permit Board may grant this exemption on non-Indian and non-federal lands only as part of the permit application process after obtaining the information required by §2705 and after making the findings required in §3117.

(B) A structure which existed on the date of application for a surface mining and reclamation permit became complete and which meets the performance standards of Subchapter B of 30 CFR Chapter VII, which are at least as stringent as the comparable standard of Subpart V of these regulations, may be exempted by the Permit Board from meeting the design requirements of these regulations. The Permit Board may grant this exemption on non-Indian and non-federal lands only as part of the permit application process after obtaining the information required by §2705 and after making the findings required in §3117.

(C) A structure which existed on the date of application for a surface mining and reclamation permit became complete and which meets a performance standard of Subchapter B of 30 CFR Chapter VII which is less stringent than the comparable performance standards of Subpart V of these regulations, or which does not meet a performance standard of Subpart V for which there was no equivalent performance standard in Subchapter B of 30 CFR Chapter VII shall be modified or reconstructed to meet the design standard of these regulations pursuant to a compliance plan approved by the Department on

non-Indian and non-federal lands only as part of the permit application as required in §2705 and according to the findings required by §3117.

(D) A structure which existed on the date an application for a surface mining and reclamation permit became complete and which does not meet the performance standards of Subchapter B of 30 CFR Chapter VII and which the applicant proposes to use in connection with or to facilitate exploration, development or surface coal mining and reclamation operations shall be modified or reconstructed to meet the design standards of these regulations prior to issuance of the permit.

(2) The exemptions provided in §303 (c) (1) (A) and (B) shall not apply to:

(A) the requirements for existing and new coal mine waste disposal facilities used either temporarily or permanently as dams or embankments;

(B) the requirements to restore the approximate original contour of the land.

(d) The Act and these regulations shall not apply to:

(A) the extraction of coal by a landowner for that landowner's own noncommercial use from land owned or leased by the landowner; or

(B) the extraction of coal as an incidental part of federal, state or local financed highways or other construction.

(e)

(1) Any person conducting coal exploration operations on non-federal and non-Indian lands on or after the date on which the Mississippi state program is approved shall file either an application for the necessary permit or a notice of intention to explore or develop and obtain approval as required by the Act and Chapter 21.

(2) Coal exploration performance standards in these regulations shall apply to coal exploration or development operations on non-federal and non-Indian lands which substantially disturb the natural land surface.

Chapter 4. Exemption for Coal Extraction Incidental to the Extraction of Other Minerals

§401. Scope

This Chapter implements the exemption concerning the extraction of coal not in connection with a surface coal mine and incidental to the extraction of other minerals.

§403. Definitions

As used in this Chapter, the following terms have the meaning specified, except where otherwise indicated:

(a) Cumulative Measurement Period–the period of time over which both cumulative production and cumulative revenue are measured.

(1) For purposes of determining the beginning of the cumulative measurement period, subject to approval by the Department, the operator must select and consistently use one of the following:

(A) for mining areas where coal or other minerals were extracted prior to August 3, 1977, the date extraction of coal or other minerals commenced at that mining area or August 3, 1977, or

(B) for mining areas where extraction of coal or other minerals commenced on or after August 3, 1977, the date extraction of coal or other minerals commenced at that mining area, whichever is earlier.

(2) For annual reporting purposes pursuant to §419, the end of the period for which cumulative production and revenue is calculated is either:

(A) for mining areas where coal or other minerals were extracted prior to April 1, 1990, March 31, 1990, and every March 31 thereafter, or

(B) for mining areas where extraction of coal or other minerals commenced on or after April 1, 1990, the last day of the calendar quarter during which coal extraction commenced, and each anniversary of that day thereafter.

(b) Cumulative Production–the total tonnage of coal or other minerals extracted from a mining area during the cumulative measurement period. The inclusion of stockpiled coal and other mineral tonnages in this total is governed by §415.

(c) Cumulative Revenue–the total revenue derived from the sale of coal or other minerals and the fair market value of coal or other minerals transferred or used, but not sold, during the cumulative measurement period.

(d) Mining Area–an individual excavation site or pit from which coal, other minerals and overburden are removed.

(e) Other Minerals–any commercially valuable substance mined for its mineral value, excluding coal, topsoil, waste and fill material.

§405. Application Requirements and Procedures

(a) Incidental mining exemption and approval process.

(1) Any person who plans to commence or continue coal extraction after the effective date of these regulations in reliance on the incidental mining exemption shall file a complete application for exemption with the Permit Board for each mining area.

(2) Following incorporation of an exemption application approval process into the regulatory program, a person may not commence coal extraction based upon the exemption until the Permit Board approves such application except as provided in §405 (e) (3).

(b) Existing Operations. Any person who has commenced coal extraction at a mining area in reliance upon the incidental mining exemption prior to the effective date of these regulations may continue mining operations for 60 days after such effective date. Coal extraction may not continue after such 60-day period unless that person files an administratively complete application for exemption with the Permit Board. If an administratively complete application is filed within 60 days, the person may continue extracting coal in reliance on the exemption beyond the 60-day period until the Permit Board makes an administrative decision on such application.

(c) Additional Information. The Permit Board shall notify the applicant if the application for exemption is incomplete and may at any time require submittal of additional information.

(d) Public Comment Period. Following publication of the newspaper notice required by §407 (b) (7), the Permit Board shall provide a period of no less than 30 days during which time any person having an interest which is or may be adversely affected by a decision on the application may submit written comments or objections.

(e) Exemption Determination

(1) No later than 90 days after filing of an administratively complete application, the Permit Board shall make a written determination whether, and under what conditions, the persons claiming the exemption are exempt under this Chapter, and shall notify the applicant and persons submitting comments on the application of the determination and the basis for the determination.

(2) The determination of exemption shall be based upon information contained in the application and any other information available to the Permit Board at that time.

(3) If the Permit Board fails to provide an applicant with the determination as specified in §405 (e) (1), an applicant who has not begun may commence coal extraction pending a determination on the application unless the Permit Board issues an interim finding, together with reasons therefor, that the applicant may not begin coal extraction.

(f) Administrative Review

(1) The applicant or any other interested party aggrieved by the Permit Board's decision may request a formal hearing pursuant to § 53-9-77 within 30 days of the notification of such determination in accordance with procedures established under §3301.

(2) A request for a formal hearing filed under §3301 shall not suspend the effect of a determination under §405 (e).

§407. Contents of Application for Exemption

An application for exemption shall include at a minimum:

(a) the name and address of the applicant;

(b) a list of the minerals sought to be extracted;

(c) estimates of annual production of coal and the other minerals within each mining area over the anticipated life of the mining operation;

(d) estimated annual revenues to be derived from bonafide sales of coal and other minerals to be extracted within the mining area;

(e) where coal or other minerals are to be used rather than sold, estimated annual fair market values at the time of projected use of the coal and other minerals to be extracted from the mining area;

(f) the basis for all annual production, revenue, and fair market value estimates;

(g) a description, including county, township if any, and boundaries of the land, of sufficient certainty that the mining areas may be located and distinguished from other mining areas;

(h) an estimate to the nearest acre of the number of acres that will compose the mining area over the anticipated life of the mining operation;

(i) evidence of publication, in a newspaper of general circulation in the county of the mining area, of a public notice that an application for exemption has been filed with the Permit Board (The public notice must identify the persons claiming the exemption and must contain a description of the proposed operation and its locality that is sufficient for interested persons to identify the operation);

(j) representative stratigraphic cross-section(s) based on test borings or other information identifying and showing the relative position, approximate thickness and density of the coal and each other mineral to be extracted for commercial use or sale and the relative position and thickness of any material, not classified as other minerals, that will also be extracted during the conduct of mining activities;

(k) a map of appropriate scale which clearly identifies the mining area;

(l) a general description of mining and mineral processing activities for the mining area;

(m) a summary of sales commitments and agreements for future delivery, if any, which the applicant has received for other minerals to be extracted from the mining area, or a description of potential markets for such minerals;

(n) if the other minerals are to be commercially used by the applicant, a description specifying the use;

(o) for operations having extracted coal or other minerals prior to filing an application for exemption, in addition to the information required above, the following information must also be submitted:

(1) any relevant documents the operator has received from the Department or Permit Board documenting its exemption from the requirements of the act;

(2) the cumulative production of the coal and other minerals from the mining area; and

(3) estimated tonnages of stockpiled coal and other minerals; and

(p) any other information pertinent to the qualification of the operation as exempt.

§409. Public Availability of Information

(a) Except as provided in §409 (b), all information submitted to the Department or Permit Board under this Chapter shall be made immediately available for public inspection and copying at the Department until at least three years after expiration of the period during which the

subject mining area is active.

(b) Information submitted to the Department under this Chapter may be kept confidential, to the extent allowed by § 49-17-39 and any regulations promulgated thereunder, if the person submitting it requests in writing, at the time of submission, that it be kept confidential and the information concerns trade secrets or is privileged commercial or financial information of the persons intending to conduct operations under this Chapter.

(c) Information requested to be held as confidential under §409 (b) shall not be made publicly available until after notice and opportunity to be heard is afforded persons both seeking and opposing disclosure of the information.

§411. Requirements for Exemption

(a) Activities are exempt from the requirements of the act if all of the following are satisfied:

(1) The cumulative production of coal extracted from the mining area determined annually as described in this Section does not exceed $16^2/_3$ percent of the total cumulative production of coal and other minerals removed during such period for purposes of bone fide sale or reasonable commercial use.

(2) Coal is produced from a geological stratum lying above or immediately below the deepest stratum from which other minerals are extracted for purposes of bona fide sale or reasonable commercial use.

(3) The cumulative revenue derived from the coal extracted from the mining area determined annually shall not exceed 50 percent of the total cumulative revenue derived from the coal and other minerals removed for purposes of bona fide sale or reasonable commercial use. If the coal extracted or the minerals removed are used by the operator or transferred to a related entity for use instead of being sold in a bona fide sale, then the fair market value of the coal or other minerals shall be calculated at the time of use or transfer and shall be considered rather than revenue.

(b) Persons seeking or that have obtained an exemption from the requirements of the act shall comply with the following:

(1) Each other mineral upon which an exemption under this Chapter is based must be a commercially valuable mineral for which a market exists or which is mined in bona fide anticipation that a market will exist for the mineral in the reasonable foreseeable future, not to exceed 12 months from the end of the current period for which

cumulative production is calculated. A legally binding agreement for the future sale of other minerals is sufficient to demonstrate the above standard.

(2) If either coal or other minerals are transferred or sold by the operator to a related entity for its use or sale, the transaction must be made for legitimate business purposes.

§413. Conditions of Exemption and Right of Inspection and Entry

A person conducting activities covered by this Chapter shall:

(a) maintain on-site or at other locations available to authorized representatives of the Department and the secretary of interior information necessary to verify the exemption including, but not limited to, commercial use and sales information, extraction tonnages, and a copy of the exemption application and exemption approved by the Department;

(b) notify the Department upon the completion of the mining operation or permanent cessation of all coal extraction activities; and

(c) conduct operations in accordance with the approved application or when authorized to extract coal under §405(b) or (e)(3) prior to submittal or approval of an exemption application, in accordance with the standards of this Chapter.

(d) Authorized representatives of the Department and the secretary of interior shall have the right to conduct inspections of operations claiming exemption under this Chapter.

(e) Each authorized representative of the Department and the secretary of interior conducting an inspection under this Chapter:

(1) shall have a right of entry to, upon, and through any mining and reclamation operations without advance notice or a search warrant, upon presentation of appropriate credentials;

(2) may, at reasonable times and without delay have access to and copy any records relevant to the exemptions; and

(3) shall have a right to gather physical and photographic evidence to document conditions, practices or violations at a site.

(f) No search warrant shall be required with respect to any activity under §413(d) or (e) except that a search warrant may be required for entry into a building.

§415. Stockpiling of Minerals

(a) Coal. Coal extracted and stockpiled may be excluded from the calculation of cumulative production until the time of its sale, transfer to a related entity or use:

(1) up to an amount equaling a 12-month supply of the coal required for future sale, transfer or use as calculated based upon the average annual sales, transfer and use from the mining area over the two preceding years; or

(2) for a mining area where coal has been extracted for a period of less than two years, up to an amount that would represent a 12-month supply of the coal required for future sales, transfer or use as calculated based on the average amount of coal sold, transferred or used each month.

(b) Other Minerals

(1) The Department shall disallow all or part of an operator's tonnages of stockpiled other minerals for purposes of meeting the requirements of this Chapter if the operator fails to maintain adequate and verifiable records of the mining area of origin, the disposition of stockpiles or if the disposition of the stockpiles indicates the lack of commercial use or market for the minerals.

(2) The Department may only allow an operator to utilize tonnages of stockpiled other minerals for purposes of meeting the requirements of this Chapter if:

(A) the stockpiling is necessary to meet market conditions or is consistent with generally accepted industry practices; and

(B) except as provided in §415(b)(3), the stockpiled other minerals do not exceed a 12-month supply of the mineral required for future sales as approved by the Department on the basis of the exemption application.

(3) The Department may allow an operator to utilize tonnages of stockpiled other minerals beyond the 12-month limit established in §415(b)(2) if the operator can demonstrate to the Department's satisfaction that the additional tonnage is required to meet future business obligations of the operator, such as may be demonstrated by a legally binding agreement for future delivery of the minerals.

(4) The Department may periodically revise the other mineral stockpile tonnage limits in accordance with the criteria established by §415(b)(2) and (3) based on additional information available to the Department.

§417. Revocation and Enforcement

(a) Regulatory Authority Responsibility. The Department shall conduct an annual compliance review of the mining area, utilizing the annual report submitted pursuant to §419, an on-site inspection and any other information available to the Department.

(b) If the Department has reason to believe that a specific mining area was not exempt under the provisions of this Chapter at the end of the previous reporting period, is not exempt, or will be unable to satisfy the exemption criteria at the end of the current reporting period, the Department shall notify the operator that the exemption may be revoked and the reason(s) therefor. The exemption will be revoked by the Permit Board unless the operator demonstrates to the Department or Permit Board within 30 days that the mining area in question should continue to be exempt.

(c)

(1) If the Permit Board finds that an operator has not demonstrated that activities conducted in the mining area qualify for the exemption, the Permit Board shall revoke the exemption and immediately notify the operator and intervenors. If a decision is made not to revoke an exemption, the Department shall immediately notify the operator and intervenors.

(2) Any adversely affected person may request administrative review of a decision whether to revoke an exemption within 30 days of the notification of such decision in accordance with procedures established under §3301.

(3) A petition for administrative review shall not suspend the effect of a decision whether to revoke an exemption.

(d) Direct Enforcement

(1) An operator mining in accordance with the terms of an approved exemption shall not be cited for violations of the regulatory program which occurred prior to the revocation of the exemption.

(2) An operator who does not conduct activities in accordance with the terms of an

approved exemption and knows or should know such activities are not in accordance with the approved exemption shall be subject to direct enforcement action for violations of the regulatory program which occur during the period of such activities.

(3) Upon revocation of an exemption or denial of an exemption application, an operator shall stop conducting surface coal mining operations until a permit is obtained and shall comply with the reclamation standards of the applicable regulatory program with regard to conditions, areas and activities existing at the time of revocation or denial.

§419. Reporting Requirements

(a) General**.**

(1) Following approval by the Permit Board of an exemption for a mining area, the person receiving the exemption shall, for each mining area, file a written report annually with the Department containing the information specified in §419(b).

(2) The report shall be filed no later than 30 days after the end of the 12-month period as determined in accordance with the definition of cumulative measurement period in §403.

(3) The information in the report shall cover:

(A) annual production of coal and other minerals and annual revenue derived from coal and other minerals during the preceding 12-month period, and

(B) the cumulative production of coal and other minerals and the cumulative revenue derived from coal and other minerals.

(b) For each period and mining area covered by the report, the report shall specify:

(1) the number of tons of extracted coal sold in bona fide sales and total revenue derived from such sales;

(2) the number of tons of coal extracted and used or transferred by the operator or related entity and the estimated total fair market value of such coal;

(3) the number of tons of coal stockpiled;

(4) the number of tons of other commercially valuable minerals extracted and sold in

bona fide sales and total revenue derived from such sales;

(5) the number of tons of other commercially valuable minerals extracted and used or transferred by the operator or related entity and the estimated total fair market value of such minerals; and

(6) The number of tons of other commercially valuable minerals removed and stockpiled by the operator.

Chapter 5. Restriction of Financial Interests of Employees

§501. Authority

The Commission is authorized to establish, monitor, and enforce the regulations contained in this Chapter.

§503. Responsibility

(a) The Department shall:

(1) provide advice, assistance and guidance to all state employees required to file statements pursuant to §507;

(2) promptly review the statement of employment and financial interests and supplements, if any, filed by each employee, to determine if the employee has correctly identified those listed employment and financial interests which constitute a direct or indirect financial interest in any surface coal mining operation or underground mining operation;

(3) resolve prohibited financial interest situations by ordering or initiating remedial action or by reporting the violations to the director who is responsible for initiating action to impose the penalties of the federal act;

(4) certify on each statement that review has been made, that prohibited financial interests, if any, have been resolved and that no other prohibited interests have been identified from the statement;

(5) submit to the Director such statistics and information as he or she may request to enable preparation of the required annual report to Congress;

(6) submit to the Director the initial listing and the subsequent annual listings of positions as required by 30 CFR 705.11(b), (c) and (d);

(A) furnish a blank statement 45 days in advance of the filing date established by §509(a) to each state employee required to file a statement; and

(B) inform annually each state employee required to file a statement with the Commission of the name, address and telephone number of the person whom they may contact for advice and counseling.

(b) Department employees performing any duties or functions under the act shall:

(1) have no direct or indirect financial interest in coal mining operations;

(2) file a fully completed statement of employment and financial interest 120 days after these regulations become effective or upon entrance to duty and annually thereafter on the specified filing date; and

(3) comply with directives issued by persons responsible for approving each statement and comply with directives issued by those persons responsible for ordering remedial action.

(c) Members of public bodies established in accordance with Mississippi laws or regulations to represent multiple interests, who perform a function or duty under the Act, shall recuse themselves from proceedings which may affect their direct or indirect financial interests.

505. Penalties

(a) Criminal penalties are imposed by Miss. Code Ann. § 53-9-19. Section 53-9-19 prohibits each employee of the Department who performs any function or duty under the act from having a direct or indirect financial interest in any surface or underground coal mining operation. The act provides that whoever knowingly violates the provisions of §53-9-19 shall, upon conviction, be punished by a fine of not more than $2,500 or by imprisonment of not more than one year or both.

(b) Regulatory penalties are imposed by this Chapter. The provisions in §53-9-19 of the act make compliance with the financial interest requirements a condition of employment for employees of the Department who perform any functions or duties under the act. Accordingly, an employee who fails to file the required statement will be considered in violation of the intended employment provisions of §53-9-19 and will be subject to removal

from his or her position.

§507. Who Shall File

(a) Any employee who performs any function or duty under the act is required to file a statement of employment and financial interests. Members of public bodies which may be established in accordance with Mississippi laws or regulations to represent multiple interests, who perform a function or duty under the Act, must file a statement of employment and financial interests. An employee who occupies a position which has been determined by the Department not to involve performance of any function or duty under the act or who is no longer employed by the Department at the time a filing is due is not required to file a statement.

(b) The Department shall prepare a list of those positions within the Department that do not involve performance of any functions or duties under the act. Only those employees who are employed in a listed organizational unit or who occupy a listed position will be exempted from the filing requirements of §53-9-19 of the act.

(c) The Department shall prepare and submit to the Director an initial listing of positions that do not involve performance of any functions or duties under the act within 60 days of the effective date of these regulations.

(d) The Department shall annually review and update this listing. For monitoring and reporting reasons, the listing must be submitted to the Director and must contain a written justification for inclusion of the provisions listed. Proposed revisions or a certification that revision is not required shall be submitted to the director by no later than September 30 of each year. The Department may revise the listing by the addition or deletion of positions at any time it determines such revisions are required to carry out the purpose of the law or the regulations of this Chapter. Additions to and deletions from the listing of positions are effective upon notification to the incumbents of the positions added or deleted.

§509. When to File

(a) Employees and members of public bodies performing functions or duties under the act shall file within 120 days of the effective date of these regulations; and annually on February 1 of each year, or at such other date as may be agreed to by the director, provided that such alternative date will allow sufficient time to obtain information needed by the director for his or her annual report to Congress.

(b) New employees and new members of public bodies representing multiple interest hired,

appointed or transferred to perform functions or duties under the act will be required to file at the time of entrance to duty.

(c) New employees and new members of public bodies representing multiple interest are not required to file an annual statement on the subsequent annual filing date if this date occurs within two months after their initial statement was filed. For example, an employee entering duty on December 1, 1988 would file a statement on that date. Because December 1 is within two months of February 1, the employee would not be required to file his or her next statement until February 1, 1990.

§511. Where to File

The Executive Director of the Department shall file his or her statement with the Director. All other employees and members of public bodies representing multiple interests, as provided in §507, shall file their statement with the Executive Director.

§513. What to Report

(a) Each employee shall report all information required on the statement of employment and financial interests of the employee, his or her spouse, minor children, or other relatives who are full-time residents of the employee's home. The report shall be on forms as provided by the Department. The statement consists of three major parts: (1) a listing of all financial interests, including employment, security, real property, creditor and other financial interests held during the course of the preceding year; (2) a certification that none of the listed financial interests represent a direct or indirect financial interest in any surface coal mining operation or underground mining operation except as specifically identified and described by the employee as part of the certificate; and (3) a certification by the reviewer that the form was reviewed, that prohibited interests have been resolved, and that no other prohibited interests have been identified from the statement.

(b) Listing of All Financial Interests. The statement will set forth the following information regarding any financial interest:

(1) Employment. Any continuing financial interests in business entities and nonprofit organizations through a pension or retirement plan, shared income, salary or other income arrangement as a result of prior or current employment. The employee, his or her spouse or other resident relative is not required to report a retirement plan from which he or she will receive a guaranteed income. A guaranteed income is one which is unlikely to be changed as a result of actions taken by the Department.

(2) Securities. Any financial interest in business entities and nonprofit organizations

through ownership of stock, stock options, bonds, securities or other arrangements including trusts. An employee is not required to report holdings in widely diversified mutual funds, investments clubs or regulated investment companies not specializing in surface or underground coal mining operations.

(3) Real Property. Ownership, lease, royalty or other interests or rights in land or minerals. Employees are not required to report lands developed and occupied for a personal residence.

(4) Creditors. Debts owed to business entities and nonprofit organizations. Employees are not required to report debts owed to financial institutions (banks, savings and loan associations, credit unions and the like) which are chartered to provide commercial or personal credit. Also excluded are charge accounts and similar short term debts for current and ordinary household and living expenses.

(c) Employee Certification and, if Applicable, a Listing of Exceptions

(1) The statement will provide for a signed certification by the employee that, to the best of his or her knowledge: none of the listed financial interests represent an interest in an underground or surface coal mining operation except as specifically identified and described as exceptions by the employee as part of the certificate; and the information shown on the statement is true, correct and complete.

(2) An employee is expected to: have complete knowledge of his or her personal involvement in business enterprises such as a sole proprietorship or partnership, his or her outside employment and the outside employment of the spouse and other covered relatives; and be aware of the information contained in the annual financial statement or other corporate or business reports routinely circulated to investors or routinely made available to the public.

(3) The exceptions shown in the employee certification of the form must provide enough information for the Executive Director to determine the existence of a direct or indirect financial interest. Accordingly, the exceptions should: list the financial interests; show the number of shares, estimated value or annual income of the financial interests; and include any other information which the employee believes should be considered in determining whether or not the interest represents a prohibited interest.

(4) Employees are cautioned to give serious consideration to their direct and indirect financial interests before signing the statement of certification. Signing the

certification without listing known prohibited financial interests may be cause for imposing the penalties prescribed in §505(a).

§515. Gifts and Gratuities

(a) Except as provided in §515(b), employees shall not solicit nor accept, directly or indirectly, any gift, gratuity, favor, entertainment, loan or any other thing of monetary value from a coal company which:

(1) conducts or is seeking to conduct operations or activities that are regulated by the Department: or

(2) has interests that may be substantially affected by the performance or non-performance of the employee's official duty.

(b) The prohibitions in §515(a) do not apply in the context of obvious family or personal relationships, such as those between the parents, children or spouse of the employee and the employee, when the circumstances make it clear that it is those relationships rather than the business of the person concerned which are the motivating factors. An employee may accept:

(1) food and refreshments of nominal value on infrequent occasions in the ordinary course of a luncheon, dinner or other meeting where an employee may properly be in attendance; and

(2) unsolicited advertising or promotional material, such as pens, pencils, note pads, calendars and other items of nominal value.

(c) Employees found guilty of violating the provisions of this Section will be subject to administrative remedies in accordance with existing or adopted state regulations or policies.

§517. Resolving Prohibited Interests

(a) Actions to be taken by the Executive Director :

(1) Remedial Action to Effect Resolution. If an employee has a prohibited financial interest, the Executive Director shall promptly advise the employee that remedial action which will resolve the prohibited interest is required within 90 days.

(2) Remedial action may include: reassignment of the employee to a position which performs no function or duty under the act; divestiture of the prohibited financial

interest; other appropriate action which either eliminates the prohibited interest or eliminates the situation which creates the conflict.

(3) Reports of Noncompliance. If, 90 days after an employee is notified to take remedial action, that employee is not in compliance with the requirements of the act and these regulations, the Executive Director of the Department shall notify the Director of his determination and shall provide a report to the Director, including the original or a certified true copy of the employee's statement and any other pertinent information.

(b) Actions to be taken by the Governor:

(1) Remedial Action to Effect Resolution. Violations of the regulations in this Chapter by the Executive Director or a member of the Commission on Environmental Quality will be cause for remedial action by the Governor or other appropriate state official based on recommendations from the Director on behalf of the Secretary. The Governor or other appropriate state official shall promptly advise the Executive Director or Commissioner that remedial action which will resolve the prohibited interest is required within 90 days.

(2) Remedial action should be consistent with the procedures prescribed for other state employees by §517(a)(2).

(3) Reports of Noncompliance. If, 90 days after the Governor is notified to take remedial action, the Governor or other appropriate state official notifies the director that the Executive Director or Commissioner is not in compliance with the act and these regulations, the Director shall take such action as may be appropriate under federal law.

§519. Appeals Procedure

Employees have the right to appeal an order for remedial action under §517 and shall have 30 days to exercise this right before disciplinary action is initiated.

(a) Employees other than the Executive Director of the Department or a member of the Commission on Environmental Quality may file their appeal, in writing, through procedures established by the Department.

(b) The Executive Director or a member of the Commission on Environmental Quality may file his or her appeal of a federal remedial action, in writing, with the Director who will refer it to the Conflict of Interest Appeals Board within the United States

Department of the Interior or may file his or her appeal of a remedial action taken by the Governor under procedures established by the Office of the Governor or the Mississippi State Personnel Board.

Chapter 7. Exemption for Coal Extraction Incident to Government-Financed Highway or Other Construction

§701. Responsibility

(a) The Department is responsible for enforcing the requirements of this Chapter.

(b) Any person conducting coal extraction as an incidental part of government-financed construction is responsible for possessing, on the site of the extraction operation, the documentation required by §705.

§703. Applicability

(a) Coal extraction which is an incidental part of government-financed construction is exempt from the act and these regulations. This exclusion shall in no way lessen the requirement of any facility, owner, or operator to comply with other federal or Mississippi laws applicable to the facility, owner, operator, or activity

(b) Any person who conducts or intends to conduct coal extraction which does not satisfy §703(a) shall not proceed until a permit has been obtained from the Department.

§705. Information to be Maintained on Site

Any person extracting coal incident to government-financed highway or other construction who extracts more than 250 tons of coal or affects more than two acres shall maintain, on the site of the extraction operation and available for inspection, documents which show:

(a) a description of the construction project;

(b) the exact location of the construction, right-of-way or the boundaries of the area which will be directly affected by the construction; and

(c) the government agency which is providing the financing and the kind and amount of public financing, including the percentage of the entire construction costs represented by the government financing.

Subpart II. Areas Unsuitable for Mining

Chapter 9. General

§901. Authority

(a) The Commission is authorized, under §53-9-71 of the Act, to establish a planning process enabling objective decisions based upon competent and scientifically sound data and information as to which, if any, land areas of the state are unsuitable for all or certain types of surface coal mining operations under the standards set forth in §53-9-71(1)(b) and (c) and these regulations.

(b) The completion of any planning process undertaken under this chapter of the regulations shall not be deemed a prerequisite to the Permit Board's issuance of surface coal mining permits or surface coal exploration permits. Rather, the planning process shall proceed supplementally to any individual permitting process.

§903. Responsibility

(a) The Commission shall establish a process that includes a data base and inventory system for designating lands unsuitable for surface coal mining operations which shall be available to the public.

(b) The Commission shall integrate as closely as possible decisions to designate lands as unsuitable for surface coal mining operations with present and future land-use planning and regulatory processes at the federal, state and local levels.

(c) The Commission shall establish a process that allows any person, having an interest which is or may be adversely affected, to petition to have an area designated as unsuitable for all or certain types of surface coal mining operations or to have a designation terminated.

(d) The Commission shall prohibit or limit surface coal mining operations on certain lands and in certain locations designated by Congress in SMCRA §522(e), 30 U.S.C. 1272(e).

Chapter 11. Areas Designated by Act of Congress

§1101. Authority

The Commission is authorized by §53-9-71(4) of the Act to prohibit or limit surface coal mining operations on or near certain private, federal and other public lands, subject to valid rights.

§1103. Responsibility

The Permit Board shall comply with Chapters 17 to 37 and determine whether an application for a permit must be denied because surface coal mining operations on those lands are prohibited or limited by §522(e) of SMCRA, 30 U.S.C. 1272(e), a valid existing rights determination made by OSM, §53-9-71, these regulations, or a designation of the Commission.

§1105. Areas Where Mining is Prohibited or Limited

Subject to valid existing rights as defined in § 105, no surface coal mining operations shall be conducted on the following lands unless you have valid existing rights as determined under § 1106 or qualify for the exception for existing operations under paragraph (h) of this section:

(a) on any lands within the boundaries of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including study rivers designated under §5(a) of the Wild and Scenic Rivers Act, 16 U.S.C. 1276(a), or study rivers or study river corridors as established in any guidelines pursuant to that Act, and National Recreation Areas designated by Act of Congress;

(b) on any federal lands within the boundaries of any national forest unless the United States Secretary of Agriculture or his or her designee finds that there are no significant recreational, timber, economic or other values which may be incompatible with surface coal mining operations or the surface operations and impacts incident to an underground coal mine;

(c) on any lands which will adversely affect any publicly owned park or any place included on the National Register of Historic Places, unless approved jointly by the Permit Board and the federal, state or local agency with jurisdiction over the park or place;

(d) within 100 feet measured horizontally of the outside right-of-way line of any public road, except:

(1) where mine access roads or haulage roads join such right-of-way line;

(2) where the Permit Board and the local governmental entity with authority over the road approves the closure or relocation of the public road; or

(3) the Permit Board expressly approves the area to be affected within 100 feet of such road, after public notice and opportunity for a public hearing in accordance with §1107(d), and after making a written finding that the interests of the affected public and landowners will be protected;

(e) within 300 feet measured horizontally from any occupied dwelling, unless the owner thereof has provided a written waiver consenting to surface coal mining operations closer than 300 feet; or the part of the mining operation which is within 300 feet of the dwelling is a haul road or access road which connects with an existing public road on the side of the public road opposite the dwelling;

(f) within 300 feet measured horizontally of any public building, school, church, community or institutional building or public park;

(g) within 100 feet measured horizontally of a cemetery. Cemeteries may be relocated if authorized by applicable State law or regulations.

(h) The prohibitions and limitations of this section do not apply to surface coal mining operations for which a valid permit, issued pursuant to these regulations, exists when the land comes under the protection of this section, 30 U.S.C. § 1272(e), or 30 C.F.R. § 761.11. This exception applies only to lands within the permit area as it exists when the land comes under the protection of this section, 30 U.S.C. § 1272(e), or 30 C.F.R. § 761.11.

§1106. Submission and processing of requests for valid existing rights determinations.

(a) The Permit Board shall have the authority to determine valid existing rights for non-federal lands listed in 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations. Pursuant to federal law, OSM retains the authority to determine valid existing rights for federal lands described listed in 30 U.S.C. § 1272(e)(1) and (2) and 30 C.F.R. § 761.11(a) and (b), and the Permit Board will use the valid existing rights determination of OSM in considering permit issuance for operations that would effect those federal lands.

(b) What you must submit as part of a request for a valid existing rights determination. You must submit a request for a valid existing rights determination to the appropriate agency under paragraph (a) of this section if you intend to conduct surface coal mining operations on the basis of valid existing rights or wish to confirm the right to do so.

(c) When the Permit Board is the appropriate agency under paragraph (a), you may submit this request before preparing and submitting an application for a permit or boundary revision for the land with a request that the Permit Board make a valid rights determination prior to receiving a complete application to conduct surface mining operations or to issue a permit revision or modification. Unless you request that the valid existing rights determination be made prior to the receipt of a complete application, the valid existing rights determination will be made by the permit board after the receipt of a complete application pursuant to § 1107(a) of these regulations.

(1) Requirements for property rights demonstration. You must provide a property rights demonstration under paragraph (a) of the definition of valid existing rights in § 105 if your request relies upon the good faith/all permits standard or the needed for and adjacent standard in paragraph (b) of the definition of valid existing rights in § 105. This demonstration must include the following items:

(i) A legal description of the land to which your request pertains.

(ii) Complete documentation of the character and extent of your current interests in the surface and mineral estates of the land to which your request pertains.

(iii) A complete chain of title for the surface and mineral estates of the land to which your request pertains.

(iv) A description of the nature and effect of each title instrument that forms the basis for your request, including any provision pertaining to the type or method of mining or mining-related surface disturbances and facilities.

(v) A description of the type and extent of surface coal mining operations that you claim the right to conduct, including the method of mining, any mining-related surface activities and facilities, and an explanation of how those operations would be consistent with Mississippi property law.

(vi) Complete documentation of the nature and ownership, as of the date that the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations, of all property rights for the surface and mineral estates of the land to which your request pertains.

(vii) Names and addresses of the current owners of the surface and mineral estates of the land to which your request pertains.

(viii) If the coal interests have been severed from other property interests, documentation that you have notified and provided reasonable opportunity for the owners of other property interests in the land to which your request pertains to comment on the validity of your property rights claims.

(ix) Any comments that you receive in response to the notification provided under paragraph (b)(1)(viii) of this section.

(2) Requirements for good faith/all permits standard. If your request relies upon the good faith/all permits standard in paragraph (b)(1) of the definition of valid existing rights in § 105, you must submit the information required under paragraph (~~b~~c)(1) of this section. You also must submit the following information about permits, licenses, and authorizations for surface coal mining operations on the land to which your request pertains:

(i) Approval and issuance dates and identification numbers for any permits, licenses, and authorizations that you or a predecessor in interest obtained before the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations.

(ii) Application dates and identification numbers for any permits, licenses, and authorizations for which you or a predecessor in interest submitted an application before the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations.

(iii) An explanation of any other good faith effort that you or a predecessor in interest made to obtain the necessary permits, licenses, and authorizations as of the date that the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations.

(3) Requirements for needed for and adjacent standard. If your request relies upon the needed for and adjacent standard in paragraph (b)(2) of the definition of valid existing rights in § 105, you must submit the information required under paragraph (c)(1) of this section. In addition, you must explain how and why the land is needed for and immediately adjacent to the operation upon which your request is based, including a demonstration that prohibiting expansion of the operation onto that land would unfairly impact the viability of the operation as originally planned before the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations.

(4) Requirements for standards for mine roads. If your request relies upon one of the standards for roads in paragraphs (c)(1) through (c)(3) of the definition of valid existing rights in § 105, you must submit satisfactory documentation that:

(i) The road existed when the land upon which it is located came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations, and you have a legal right to use the road for surface coal mining operations;

(ii) A properly recorded right of way or easement for a road in that location existed when the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations, and, under the document creating the right of way or easement, and under any subsequent conveyances, you have a legal right to use or construct a road across that right of way or easement to conduct surface coal mining operations; or

(iii) A valid permit for use or construction of a road in that location for surface coal mining operations existed when the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations.

(d) Initial review of request.

(1) The Department, acting as staff of the Permit Board, must conduct an initial review to determine whether your request includes all applicable components of the submission requirements of paragraph (c) of this section. This review pertains only to the completeness of the request, not the legal or technical adequacy of the materials submitted.

(2) If your request does not include all applicable components of the submission

requirements of paragraph (c) of this section, the Department must notify you and establish a reasonable time for submission of the missing information.

(3) When your request includes all applicable components of the submission requirements of paragraph (c) of this section, the Department must implement the notice and comment requirements of paragraph (e) of this section.

(4) If you do not provide information that the Department requests under paragraph (d)(2) of this section within the time specified or as subsequently extended, the Permit Board must issue a determination that you have not demonstrated valid existing rights, as provided in paragraph (f)(4) of this section.

(e) Notice and comment requirements and procedures.

(1) When your request satisfies the completeness requirements of paragraph (d) of this section, the Department must publish a notice in a newspaper of general circulation in the county in which the land is located. This notice must invite comment on the merits of the request. Alternatively, the Department may require that you publish this notice and provide the agency with a copy of the published notice. Each notice must include:

(i) The location of the land to which the request pertains.

(ii) A description of the type of surface coal mining operations planned.

(iii) A reference to and brief description of the applicable standard(s) under the definition of valid existing rights in § 105.

(A) If your request relies upon the good faith/all permits standard or the needed for and adjacent standard in paragraph (b) of the definition of valid existing rights in § 105, the notice also must include a description of the property rights that you claim and the basis for your claim.

(B) If your request relies upon the standard in paragraph (c)(1) of the definition of valid existing rights in § 105, the notice also must include a description of the basis for your claim that the road existed when the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations. In addition, the notice must include a description of the basis for your claim that you have a legal right to use that road for

surface coal mining operations.

(C) If your request relies upon the standard in paragraph (c)(2) of the definition of valid existing rights in § 105, the notice also must include a description of the basis for your claim that a properly recorded right of way or easement for a road in that location existed when the land came under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations. In addition, the notice must include a description of the basis for your claim that, under the document creating the right of way or easement, and under any subsequent conveyances, you have a legal right to use or construct a road across the right of way or easement to conduct surface coal mining operations.

(iv) If your request relies upon one or more of the standards in paragraphs (b), (c)(1), and (c)(2) of the definition of valid existing rights in § 105, a statement that the Permit Board will not make a decision on the merits of your request if, by the close of the comment period under this notice or the notice required by paragraph (e)(3) of this section, a person with a legal interest in the land initiates appropriate legal action in the proper venue to resolve any differences concerning the validity or interpretation of the deed, lease, easement, or other documents that form the basis of your claim.

(v) A description of the procedures that the Department will follow in processing your request.

(vi) The closing date of the comment period, which must be a minimum of 30 days after the publication date of the notice.

(vii) A statement that interested persons may obtain a 30-day extension of the comment period upon request.

(viii) The name and address of the Department office where a copy of the request is available for public inspection and to which comments and requests for extension of the comment period should be sent.

(2) The Department must promptly provide a copy of the notice required under paragraph (e)(1) of this section to:

(i) All reasonably locatable owners of surface and mineral estates in the land included in your request.

(ii) The owner of the feature causing the land to come under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations, and, when applicable, the agency with primary jurisdiction over the feature with respect to the values causing the land to come under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations. For example, both the landowner and the State Historic Preservation Officer must be notified if surface coal mining operations would adversely impact any site listed on the National Register of Historic Places. As another example, both the surface owner and the National Park Service must be notified if the request includes non-Federal lands within the authorized boundaries of a unit of the National Park System.

(3) The letter transmitting the notice required under paragraph (e)(2) of this section must provide a 30-day comment period, starting from the date of service of the letter, and specify that another 30 days is available upon request. At its discretion, the Department or Permit Board may grant additional time for good cause upon request. The Permit Board need not necessarily consider comments received after the closing date of the comment period.

(f) How a decision will be made.

(1) The Permit Board must review the materials submitted under paragraph (c) of this section, comments received under paragraph (e) of this section, and any other relevant, reasonably available information to determine whether the record is sufficiently complete and adequate to support a decision on the merits of the request. If not, the Permit Board or Department must notify you in writing, explaining the inadequacy of the record and requesting submittal, within a specified reasonable time, of any additional information that the Permit Board deems necessary to remedy the inadequacy.

(2) Once the record is complete and adequate, the Permit Board must determine whether you have demonstrated valid existing rights. The decision document must explain how you have or have not satisfied all applicable elements of the definition of valid existing rights in § 105. The decision document must contain findings of fact and conclusions, and it must specify the reasons for the conclusions.

(3) Impact of property rights disagreements. This paragraph applies only when your request relies upon one or more of the standards in paragraphs (b), (c)(1), and (c)(2) of the definition of valid existing rights in § 105.

(i) The Permit Board must issue a determination that you have not demonstrated valid existing rights if your property rights claims are the subject of pending litigation in a court or administrative body with jurisdiction over the property rights in question. The Permit Board will make this determination without prejudice, meaning that you may refile the request once the property rights dispute is finally adjudicated. This paragraph applies only to situations in which legal action has been initiated as of the closing date of the comment period under paragraph (e)(1) or (e)(3) of this section.

(ii) If the record indicates disagreement as to the accuracy of your property rights claims, but this disagreement is not the subject of pending litigation in a court or administrative agency of competent jurisdiction, the Permit Board must evaluate the merits of the information in the record and determine whether you have demonstrated that the requisite property rights exist under paragraph (a), (c)(1), or (c)(2) of the definition of valid existing rights in § 105, as appropriate. The Permit Board must then proceed with the decision process under paragraph (f)(2) of this section.

(4) The Permit Board must issue a determination that you have not demonstrated valid existing rights if you do not submit information that the Department or Permit Board requests under paragraph (d)(2) or (f)(1) of this section within the time specified or as subsequently extended. The Permit Board will make this determination without prejudice, meaning that you may refile a revised request at any time.

(5) After making a determination, the Permit Board must:

(i) Provide a copy of the determination, together with an explanation of appeal rights and procedures, to you, to the owner or owners of the land to which the determination applies, to the owner of the feature causing the land to come under the protection of 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations, and, when applicable, to the agency with primary jurisdiction over the feature with respect to the values that caused the land to come under the protection of § 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations.

(ii) Publish notice of the determination in a newspaper of general circulation in the county in which the land is located. Alternatively, the Permit Board may require that you publish this notice and provide a copy of the published notice to the agency. OSM will publish the determination, together with an

explanation of appeal rights and procedures, in the Federal Register if your request includes Federal lands within an area listed in 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations.

(g) Administrative and judicial review. A determination that valid existing rights do or do not exist is subject to administrative and judicial review under Miss. Code Ann. § 53-9-77.

(h) Availability of records. The Department or Permit Board must make a copy of the existing valid rights request available to the public in the same manner as the Department or Permit Board must make permit applications available to the public under § 3111 of these regulations. In addition, the Department or Permit Board must make records associated with that request, and any subsequent determination under paragraph (f) of this section, available to the public in accordance with the requirements and procedures of § 6311 of these regulations.

§1107. Procedures

(a) Upon receipt of a complete application for a surface coal mining and reclamation operation permit, or earlier, if properly requested under § 1106, the Permit Board shall review the application to determine whether surface coal mining operations are limited or prohibited under §1105 on the lands which would be disturbed by the proposed operation.

(b) Where the proposed operation would be located on any lands listed in §1105, the Permit Board shall deny the permit if the applicant has no valid existing rights for the area. If the Department is unable to determine whether the proposed operation is located within the boundaries of any of the lands in §1105(a) or closer than the limits provided in §1105(f) or (g), the Department shall transmit a copy of the relevant portions of the permit application to the appropriate federal, state or local government agency for a determination or clarification of the relevant boundaries or distances, with a notice to the appropriate agency that it must respond within 30 days of receipt of the request. The National Park Service or the U.S. Fish and Wildlife Service shall be notified of any request for a determination of valid existing rights pertaining to areas within the boundaries of areas under their jurisdiction. and shall have 30 days from receipt of the notification in which to respond. The Department, upon request by the appropriate agency, shall grant an extension to the 30-day period of an additional 30 days. If no response is received within the 30-day period or within the extended period granted, the Permit Board may make the necessary determination based on the information it has available.

(c) Where the proposed operation would include Federal lands within the boundaries of any national forest, and the applicant seeks a determination that mining is permissible under

§1105(b), the applicant shall submit a permit application to the Permit Board and the Director for processing pursuant to 30 C.F.R.. pt. 740. Before acting on the permit application, the Permit Board shall ensure that the Secretary of the Interior's determination has been received and that all findings required by the Act and SMCRA have been made.

(d) Where the mining operation is proposed to be conducted within 100 feet, measured horizontally, of the outside right-of-way line of any public road (except as provided in §1105(d)(1) or (2) or where the applicant proposes to relocate or close any public road, the Permit Board or local governmental entity with authority over the public road designated by the Permit Board shall:

(1) require the applicant to obtain necessary approvals of the authority with jurisdiction over the public road;

(2) provide an opportunity for a public hearing in the locality of the proposed mining operation for the purpose of determining whether the interests of the public and affected landowners will be protected;

(3) if a public hearing is requested, provide appropriate advance notice of the public hearing, to be published in a newspaper of general circulation in the affected locale at least 2 weeks prior to the hearing; and

(4) make a written finding based upon information received at the public hearing within 30 days after completion of the hearing, or after any public comment period ends if no hearing is held, as to whether the interests of the public and affected landowners will be protected from the proposed mining operation. No mining shall be allowed within 100 feet of the outside right-of-way line of a road, nor may a road be relocated or closed, unless the Permit Board or public road authority determines that the interests of the public and affected landowners will be protected.

(e)

(1) Where the proposed surface coal mining operations would be conducted within 300 feet, measured horizontally, of any occupied dwelling, the applicant shall submit with the application a written waiver by lease, deed or other conveyance from the owner of the dwelling clarifying that the owner and signatory had the legal right to deny mining and knowingly waived that right. The waiver shall act as consent to such operations within a closer distance of the dwelling as specified.

(2) Where the applicant for a permit after August 3, 1977 had obtained a valid waiver prior to August 3, 1977 from the owner of an occupied dwelling to mine within 300 feet of such dwelling, a new waiver shall not be required.

(3)

(A) Where the applicant for a permit after August 3, 1977 had obtained a valid waiver from the owner of an occupied dwelling, that waiver shall remain effective against subsequent purchasers who had actual or constructive knowledge of the existing waiver at the time of purchase.

(B) A subsequent purchaser shall be deemed to have constructive knowledge if the waiver has been properly filed in public-property records pursuant to state laws or if the mining has proceeded to within the 300-foot limit prior to the date of purchase.

(f) Where the Permit Board determines that the proposed surface coal mining operation will adversely affect any publicly owned park or any place included in the National Register of Historic Places, the Permit Board shall follow the procedure required by § 3114(d).

(g) If the proposed surface coal mining operation is not prohibited under §53-9-71(4) and this Chapter, the Commission may, nevertheless, pursuant to appropriate petitions, designate such lands as unsuitable for all or certain types of surface coal mining operations pursuant to §53-9-71, and Chapters 13 or 15 of these regulations.

Chapter 13. Criteria for Designing Lands as Unsuitable for Surface Coal Mining Operations

§1301. Responsibility

The Commission shall use the criteria in this Chapter for the evaluation of each petition for the designation of areas as unsuitable for surface coal mining operations.

§1303. Criteria for Designating Lands as Unsuitable

(a) Upon petition pursuant to §53-9-71(2) an area shall be designated as unsuitable for all or certain types of surface coal mining operations, if the Commission determines that reclamation is not technologically and economically feasible under the Act or these regulations.

(b) Upon petition an area may be, but is not required to be, designated as unsuitable for certain types of surface coal mining operations, if the operations will:

(1) be incompatible with existing state or local land use plans or programs;

(2) affect fragile or historic lands in which the operations could result in significant damage to important historic, cultural, scientific or aesthetic values or natural systems;

(3) affect renewable resource lands in which the operations could result in a substantial loss or reduction of long-range productivity of water supply or of food or fiber products;

(4) affect natural hazard lands in which the operations could substantially endanger life and property, such lands to include areas subject to frequent flooding and areas of unstable geology.

§1307. Land Exempt from Designation as Unsuitable for Surface Coal Mining Operations

The requirements of this Chapter do not apply to lands covered by a permit issued under the Act.

§1309. Exploration or Development on Land Designated as Unsuitable for Surface Coal Mining Operations

Designation of any area as unsuitable for all or certain types of surface coal mining operations pursuant to §53-9-71 and regulations of this Subpart does not prohibit coal exploration operations in the area, if conducted in accordance with that section, these regulations and other applicable requirements. Exploration on any lands designated unsuitable for surface coal mining operations must be approved by the Permit Board under Chapter 21, to insure that exploration does not interfere with any value for which the area has been designated unsuitable for surface coal mining.

Chapter 15. State Process for Designating Areas Unsuitable for Surface Coal Mining Operations

§1505. Procedures: Petitions

(a) Right to Petition. Any interested party which is or may be adversely affected has the right to petition the Commission to have an area designated as unsuitable for surface coal mining operations, or to have an existing designation terminated. For the purpose of this chapter, an interested party is a person having an interest which is or may be adversely affected by surface coal mining in the area at issue in his or her petition who is able to demonstrate to the Commission that he or she meets an "injury in fact" test by describing the actual or

potential injury to his or her specific affected interests and demonstrating how he or she is or would be among the injured.

(b) Designation. The petitioner must provide: identification of the petitioned area, including its location and size, and a U.S. Geological Survey topographic map outlining the perimeter of the petitioned area; allegations of facts and supporting evidence which would tend to establish that the area is unsuitable for all or certain types of surface coal mining operations; a description of how mining of the area has affected or may adversely affect people, land, air, water or other resources; the petitioner's name, address, telephone number and notarized signature; and identification of the petitioner's interest which is or may be adversely affected, including a statement demonstrating how the petitioner satisfies the requirements of §1505(a) and any additional information deemed necessary by the Commission.

(c) Termination. The petitioner must provide the following information in support of a petition to terminate a designation:

(1) identification of the petitioned area, including its location and size, and a U.S. Geological Survey topographic map outlining the perimeter of the petitioned area to which the termination petition applies.

(2) allegations of facts, with supporting evidence, not contained in the record of the proceeding in which the area was designated unsuitable, which would tend to establish the statements or allegations, and which statements or allegations indicate that the designation should be terminated based on:

(A) the nature or abundance of the protected resource or condition or other basis of the designation if the designation was based on criteria found in §1303(b);

(B) reclamation now being technologically and economically feasible, if the designation was based on the criteria found in §1303(a); or

(C) the resources or condition not being affected by surface coal mining operations, or in the case of land use plans, not being incompatible with surface coal mining operations during and after mining, if the designation was based on the criteria found in §1303(b);

(3) the petitioner's name, address, telephone number and notarized signature;

(4) identification of the petitioner's interest which is or may be adversely affected by the continuation of the designation, including a statement demonstrating how the petitioner satisfies the requirements of §1505(a), and

(5) any additional information deemed necessary by the Commission.

§1507. Procedures: Initial Processing, Record keeping, and Notification Requirements

(a) (1) Within 30 days of receipt of a petition, the Department shall notify the petitioner by certified mail whether or not the petition is complete under §1505(b) or (c).

(2) The State Geologist shall determine whether any identified coal resources exist in the area covered by the petition, without requiring any showing from the petitioner. If the State Geologist finds there are not any identified coal resources in that area, the State Geologist shall recommend to the Commission that the Petition to Designate Lands unsuitable be denied without prejudice, subject to the discovery of information indicating that coal resources do exist in the area covered by the petition.
If the State Geologist determines that identified coal resources do exist in the area covered by the petition, he or she will consider all available information, including, without limitation, the information required by this chapter to be submitted in support of the petition, and will make a recommendation to the Commission for action at the conclusion of his or her review.

(3) The Commission may deny petitions for designations or terminations of designations which are incomplete, frivolous , or if the petitioner does not meet the requirements of §1505(a). A frivolous petition is one in which the allegations of harm lack serious merit. Once the requirements of §1505 are met, no party shall bear any burden of proof, but each accepted petition shall be considered and acted upon by the Commission pursuant to the procedures of this Chapter.

(4) When considering a petition for an area which was previously and unsuccessfully proposed for designation, the Commission shall determine if the new petition presents new allegations of fact. If the petition does not contain new allegations of fact, the Commission shall deny the petition, with a statement of its findings and a reference to the record of the previous designation proceedings where the facts were considered.

(5) If the Commission determines that the petition is incomplete or frivolous, it shall deny the petition, with a written statement of the reasons for the determination and the categories of information needed to make the petition complete.

(6) The Commission shall notify the person who submits a petition of any application for a permit received which proposes to include any area covered by the petition, unless the Commission has denied the petition prior to the receipt of the application.

(7) The Commission may determine, in deference to Permit Board procedures stated in the act and these regulations, not to process any petition received, or a part of a petition, that pertains to lands for which a complete permit application has been filed and the first newspaper notice has been published. Based upon such a determination, the Permit Board may issue a decision on a complete and accurate permit application, and the Commission shall inform the petitioner why it has determined not to consider the part of the petition pertaining to the proposed permit area.

(b) (1) Promptly after a petition is received, the Commission shall notify the general public of the receipt of the petition by a newspaper advertisement placed in the locale of the area covered by the petition, and in the newspaper providing broadest circulation in the region of the petitioned area. The Commission shall make copies of the petition available to the public and shall provide copies of the petition to other interested governmental agencies, intervenors, persons with an ownership interest of record in the property, and other persons known to the Commission to have an interest in the property. Proper notice to persons with an ownership interest of record in the property shall comply with the requirements of applicable State law.

(2) The Commission may provide for a hearing or a period of written comments on completeness of petitions. If a hearing or comment period on completeness is provided, the Commission shall inform interested governmental agencies, intervenors, persons with an ownership interest of record in the property, and other persons known to the Commission to have an interest in the property of the opportunity to request to participate in such a hearing or provide written comments. Proper notice to persons with an ownership interest of record in the property shall comply with the requirements of the Act. Notice of such a hearing shall be made by a newspaper advertisement placed in the locale of the area covered by the petition, and in the newspaper providing broadest circulation in the region of the petitioned area. The Commission shall notify the petitioner of such a hearing by certified mail. On the basis of a Commission review as well as consideration of all comments, the Commission shall determine whether the petition is complete.

(3) Within twenty days after the determination that a petition is complete, the Commission shall circulate copies of the petition to, and request submissions of relevant information from, other interested government agencies, the petitioner, intervenors, persons with an ownership interest of record in the property and other persons known to the Commission to have an interest in the property. For purposes of this chapter, a complete petition shall be defined in the same way that a complete application is defined in §105.

(4) Within twenty days after the determination that a petition is complete, the Commission shall notify the general public of the receipt of the petition and request submissions of relevant information by a newspaper advertisement placed once a week for two consecutive weeks in the locale of the area covered by the petition, in the newspaper of largest circulation in the state and in any official state register of public notices.

(c) Any person may provide written or oral comment for consideration by the Commission during a public hearing conducted pursuant to §1509.

(d) Beginning immediately after a complete petition is filed, the Commission shall compile and maintain a record consisting of all documents relating to the petition filed with or prepared by the Commission. The Commission shall make the record available for public inspection free of charge and copying at reasonable cost during all normal business hours at a central location of the county or multi county area in which the land petition is located and at the Commission.

(e) After an interested party has filed a petition, but before the public hearing is held pursuant to §1509 of these regulations, any other interested party may intervene by filing a petition that complies with § 1505. An intervenor may adopt by reference all or part of a petition previously filed by another party.

§1509. Procedures: Hearing Requirements

(a) Within 6 months after receipt of a complete petition, the Commission shall hold a public hearing in the locality of the area covered by the petition. The Commission shall make a transcript of the hearing.

(b) (1) The Commission shall give notice of the date, time and location of the hearing to:

(A) local, state and federal agencies which may have an interest in the decision on the petition;

(B) the petitioner; and

(C) any person known by the Commission to have a property interest in the petitioned area.

(2) Notice of the hearing shall be sent by certified mail to the petitioner and by regular

mail to local, state and federal agencies, and property owners and postmarked not less than 30 days before the scheduled date of the hearing.

(c) The Commission shall notify the general public of the date, time and location of the hearing by placing a newspaper advertisement once a week for two consecutive weeks in the locale of the area covered by the petition and once during the week prior to the scheduled date of the public hearing. The consecutive weekly advertisement must begin between four and five weeks before the scheduled date of the public hearing.

(d) The Commission may consolidate in a single hearing the hearings required for each of several petitions which relate to areas in the same locale.

(e) Prior to designating any land areas as unsuitable for surface coal mining operations, the Commission shall prepare a detailed statement, using existing and available information on the potential coal resources of the area, the demand for coal resources and the impact of such designation on the environment, the economy and the supply of coal.

§1511. Procedures: Decision

(a) In reaching its decision, the Commission shall use:

(1) the information contained in the data base and inventory system;

(2) information provided by other governmental agencies;

(3) the detailed statement prepared under §1509(e); and

(4) any other relevant information submitted during the comment period.

(b) A final written decision shall be issued by the Commission, including a statement of reasons, within 60 days of completion of the public hearing. The Commission shall simultaneously send the decision by certified mail to the petitioner and to persons who submitted written comments concerning the application during the public comment period and who provided the Department or Commission with a complete mailing address.

(c) Any person having an interest which is or may be adversely affected as defined in §1505(a) and who is aggrieved by a decision of the Commission or by the failure of the Commission to act within the time limits set forth in this section may request a formal hearing as provided in §53-9-77.

(d) Any person who participated as a party in the formal hearing may appeal the final decision

of the Commission as provided in §53-9-77. All relevant portions of the data base, inventory system, and public comments received during the public comment period set by the Commission shall be included in the record of the administrative proceeding.

§1513. Data Base and Inventory System Requirements

(a) The State Geologist shall be responsible for surface coal mining land review and shall assist the Commission in developing a data base and inventory system which will permit evaluation of whether reclamation is feasible in areas covered by petitions.

(b) The Commission shall include in the system information relevant to the criteria in §1303 including, but not limited to, information received from the U.S. Fish and Wildlife Service, the state historic preservation officer and the agency administering §127 of the Clean Air Act, as amended (42 U.S.C. 7470 et seq.).

(c) The Commission shall add to the data base and inventory system information:

(1) on potential coal resources of the state, demand for those resources, the environment, the economy and the supply of coal sufficient to enable the Commission to prepare the statements required by §1509(e); and

(2) that becomes available from petitions, publications, experiments, permit applications, mining and reclamation operations and other sources.

§1515. Public Information

The Department shall:

(a) make the information in the data base and inventory system developed under §1513 available to the public for inspection free of charge and for copying at reasonable cost, except that specific information relating to location of properties proposed to be nominated to, or listed in, the National Register of Historic Places need not be disclosed if the Commission determines that the disclosure of such information would create a risk of destruction or harm to such properties.

(b) provide information to the public, on request, on the petition procedures necessary to have an area designated as unsuitable for all or certain types of surface coal mining operations or to have designations terminated and describe how the inventory and data base system can be used.

§1517. Responsibility for Implementation

(a) The Permit Board shall not issue permits which are inconsistent with designations made pursuant to Chapters 9, 11, 13 or 15.

(b) The Department shall maintain a map of areas designated as unsuitable for all or certain types of surface coal mining operations.

(c) The Department shall make available to any person any information within its control regarding designations, including mineral or elemental content which is potentially toxic in the environment except for proprietary information on the chemical and physical properties of the coal.

Subpart III
Surface Coal Mining and Reclamation Operations Permits and Coal Exploration Procedures Systems

Chapter 17. General Requirements for Permit or Exploration Procedure Systems

§1701. Responsibilities

(a) Persons seeking to engage in surface coal mining and reclamation operations must submit an application for and obtain a permit for those operations in accordance with this Subpart. Persons seeking to conduct coal exploration operations must first file the notice of intention or obtain approval of the Permit Board as required under Chapter 21.

(b) The Permit Board shall review each application for exploration approval and for a permit, approve or disapprove each permit application or exploration application, and issue, deny, modify, suspend or revoke exploration approval, permits, renewals or revised permits.

§1703. Applicability

This Subpart applies to each person who applies for a permit for surface coal mining and reclamation operations or conducts surface coal mining and reclamation operations pursuant to a permit under these regulations and to persons who seek to conduct coal exploration operations under these regulations.

§1705. Coordination with Requirements Under Other Laws

The Department shall provide for the coordination of review of permit applications for surface coal mining and reclamation operations. These shall include but not be limited to applicable requirements of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 et seq.); the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 et seq.); the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.); the Bald Eagle Protection Act, as amended (16 U.S.C. 668a); and Executive Order 11593 to the extent that each of these acts or orders is applicable to the activities of the Department, Commission, or Permit Board in executing the authority and duty granted to those entities by the Act.

Chapter 19. General Requirements for Permits and Permit Applications

§1901. General Requirements for Permits: Operators

No person shall engage in or carry out surface coal mining and reclamation operations on non-federal or non-Indian lands within the state, unless that person has first obtained a valid permit issued by the Permit Board. A permittee need not renew the permit if no surface coal mining operations will be conducted under the permit and solely reclamation activities remain to be done. Obligations established under a permit continue until completion of surface coal mining and reclamation operations, regardless of whether the authorization to conduct surface coal mining operations has expired or has been terminated, revoked, or suspended.

§1903. Compliance with Permits

All persons shall conduct surface coal mining and reclamation operations under permits issued pursuant to the act and these regulations and shall comply with the terms and conditions of the permit and the requirements of the act and these regulations.

§1905. Permit Application Filing Deadlines

(a) Reissuance of Valid Permits. An application for reissuance of a permit shall be filed with the Permit Board at least 180 days before the expiration of the permit involved. If an application for reissuance is timely filed, the operator may continue surface coal mining operations under the existing permit until the Permit Board takes action on the reissuance application.

(b) Revisions of Permits.

(1) During the term of the permit, the permittee may submit an application for a revision of the permit to the State Geologist, who shall make a recommendation to the Executive Director regarding whether the revision should be allowed. An application for a revision shall not be approved unless the Executive Director finds that reclamation can be accomplished under the revised reclamation plan. On receipt of an application for a revision, the State Geologist shall determine whether the application is a request for a revision or for a modification.

(2) If the request is deemed a modification, the application will be processed as a modification to the permit pursuant to the act and these regulations. A revision shall not be considered a modification. The Executive Director is not required to provide public notice or a public hearing prior to granting or denying the request for a revision. The revision shall be granted or denied by the Executive Director within fourteen days of receipt of the request by the State Geologist, unless the State

Geologist or Executive Director request additional information from the applicant regarding the request. If a request for additional information is made, the Executive Director shall grant or deny the request within fourteen days of his or her receipt of the additional information.

(3) No request for a revision shall be approved unless:

(A) Applicable requirements under § 3115, which are pertinent to the revision, are met; and

(B) The application for a revision complies with all requirements of the act and the regulatory program.

(4) A decision by the Executive Director to grant or deny a revision shall be subject to formal hearing and appeal as would an initial decision of the Permit Board under § 53-9-77.

(5) Any extension or addition to the area covered by the permit except incidental boundary revisions must be made by application for a new permit or a permit modification.

(c) A successor in interest to a permittee who applies for a new permit within thirty (30) days of succeeding to that interest, and who is able to obtain the bond coverage of the original permittee, may continue surface coal mining and reclamation operations according to the approved mining and reclamation plan of the original permittee until the Permit Board takes action on the successor's application.

§1907. Permit Applications: General Requirements for Format and Contents

(a) Applications for permits to conduct surface coal mining and reclamation operations shall be filed in the format required by the Department. The application shall be complete and include, at a minimum: for surface mining activities, all the applicable information required under §53-9-25 and Chapters 23, 25, and 27; and, for special types of surface coal mining and reclamation operations, all applicable information required under the Act and Chapter 29.

(b) Information set forth in the application shall be current, presented clearly and concisely, and supported by appropriate references to technical and other written material available to the Department.

(c) All technical data submitted in the application shall be accompanied by: names of persons or organizations which collected and analyzed such data; dates of the collection and analyses; and descriptions of methodology used to collect and analyze the data.

(d) Technical analyses shall be planned by or under the direction of a professional qualified in the subject to be analyzed.

(e) The application shall state the name, address and position of officials of each private or academic research organization or governmental agency consulted by the applicant in preparation of the application for information on land uses, soils geology, vegetation, fish and wildlife quantity and quality, air quality, and archaeological, cultural and historic features.

(f) Maps and plans: General Requirements

(1) Maps submitted with the application shall be presented in a consolidated format, to the extent possible, and shall include all the types of information that are set forth on topographic maps of the United States Geological Survey of the 1:24,000 scale series. Maps of the permit area shall be at a scale of 1:6,000 or larger. Maps of the adjacent areas shall clearly show the lands and waters within those areas and be in a scale determined by the Department, but in no event smaller than 1:24,000.

(2) All maps and plans submitted with the application shall distinguish among each of the phases during which surface coal mining operations were or will be conducted at any place during the life of operations.

§1909. Permit Fees

(a) The Commission shall assess and collect a permit fee for reviewing the permit application and administering and enforcing a surface coal mining and reclamation permit. The Commission may set permit fees for the transfer, modification or reissuance of a surface coal mining and reclamation permit. These fees shall be set by order of the Commission in accordance with § 53-9-28.

(b) The Commission may also establish a permit fee for the issuance, reissuance, transfer or modification of a coal exploration permit and a reasonable fee for a copy of a transcript of a formal hearing held under these regulations. These fees shall be set by order of the Commission in accordance with § 53-9-28.

§1911. Verification of Application

Applications for permits, revisions of permits, renewals, or transfers, sales or assignment of permit rights shall be verified under oath, by a responsible official of the applicant, that the information contained in the application is true and correct to the best of the official's information and belief.

Chapter 21. Coal Exploration and Development

§2101. Notice Requirements for Exploration Removing 250 tons of coal or less

(a) Any person who intends to conduct coal exploration operations outside a permit area during which 250 tons or less of coal will be removed and which shall not substantially disturb the natural land surface shall, before conducting the exploration, file with the Department a written notice of intention to explore, except that exploration which will take place on lands designated as unsuitable for surface coal mining operations under Chapters 5, 11, 13 and 15 of these regulations shall be subject to the permitting requirements of §2103. Exploration conducted under a notice of intent shall not require a permit but shall be subject to the requirements prescribed under §2105.

(b) The notice shall include -

(1) The name, address and telephone number of the person seeking to explore;

(2) The name, address and telephone number of the person's representative who will be present at, and responsible for, conducting the exploration activities;

(3) A narrative describing the proposed exploration area or a map at a scale of 1:24,000, or greater, showing the proposed area of exploration and the general location of drill holes and trenches, existing and proposed roads, occupied dwellings, topographic features, bodies of surface water, and pipelines;

(4) A statement of the period of intended exploration; and

(5) A description of the method of exploration to be used and the practices that will be followed to protect the environment and to reclaim the area from adverse impacts of the exploration activities in accordance with the applicable requirements of subpart V of these regulations, permanent program performance standards.

§2103 Permit Requirements for Exploration Removing More Than 250 Tons of Coal, or Occurring on Lands Designated as Unsuitable for Surface Coal Mining Operations

(a) Exploration permit. Any person who intends to conduct coal exploration outside a permit area during which more than 250 tons of coal will be removed or which will substantially disturb the natural land surface, or which will take place on lands designated as unsuitable for surface mining, shall, before conducting the exploration, submit an application and obtain written approval from the Permit Board in an exploration permit. Such exploration shall be subject to the requirements prescribed under §2105 and §2107.

(b) Application information. Each application for an exploration permit shall contain, at a minimum, the following information:

(1) The name, address and telephone number of the applicant;

(2) The name, address and telephone number of the applicant's representative who will be present at, and responsible for, conducting the exploration activities.

(3) A narrative describing the proposed exploration area.

(4) A narrative description of the methods and equipment to be used to conduct the exploration and reclamation.

(5) An estimated timetable for conducting and completing each phase of the exploration and reclamation.

(6) The estimated amount of coal to be removed and a description of the methods to be used to determine the amount.

(7) A statement of why extraction of more than 250 tons of coal is necessary for exploration.

(8) A description of :

(A) Cultural or historical resources listed on the National Register of Historic Places;

(B) Cultural or historical resources known to be eligible for listing on the

National Register of Historic Places; and

(C) Known archeological resources located within the proposed exploration area.

(D) Any other information which the Permit Board may require regarding known or unknown historic or archeological resources.

(9) A description of any endangered or threatened species listed pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) identified within the proposed exploration area.

(10) A description of the measures to be used to comply with the applicable requirements of Subpart V of these regulations.

(11) The name and address of the owner of record of the surface land and of the subsurface mineral estate of the area to be explored.

(12) A map or maps at a scale of 1:24,000, or larger, showing the areas of land to be disturbed by the proposed exploration and reclamation. The map shall specifically show existing roads, occupied dwellings, topographic and drainage features, bodies of surface water, and pipelines; proposed locations of trenches, roads and other access routes and structures to be constructed; the location of proposed land excavations; the location of exploration holes or other drill holes or underground openings; the location of excavated earth or waste-material disposal areas; and the location of critical habitats of any endangered or threatened species listed pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.).

(13) If the surface is owned by a person other than the applicant, a description of the basis upon which the applicant claims the right to enter that land for the purposes of conducting exploration and reclamation.

(14) For any lands listed in § 1105 of this chapter, a demonstration that, to the extent technologically and economically feasible, the proposed exploration activities have been designed to minimize interference with the values for which those lands were designated as unsuitable for surface coal mining operations. The application must include documentation of consultation with the owner of the feature causing the land to come under the protection of § 1105 of this chapter, and, when applicable, with the agency with primary

jurisdiction over the feature with respect to the values that caused the land to come under the protection of § 1105 of this chapter.

(c) Public notice and opportunity to comment. Public notice of the application and opportunity to comment shall be provided as follows:

(1) The applicant shall provide public notice of the filing of complete application with the Department by publication in a newspaper of general circulation in the county of the proposed exploration area within ten days of the filing of a complete application.

(2) The public notice shall state the name and address of the person seeking approval, the filing date of the application, the address of the Department, the closing date of the comment period, and a description of the area of exploration.

(3) Any person having an interest which is or may be adversely affected shall have the right to file written comments on the application within reasonable time limits as set by the Department and stated in the published public notice.

(d) Decisions on applications for exploration.

(1) The Permit Board shall act upon an administratively complete application for a coal exploration permit and any written comments within a reasonable period of time. The approval of a coal exploration permit may be based only on a complete and accurate application.

(2) The Permit Board shall approve a complete and accurate application for a coal exploration permit filed in accordance with this Chapter if it finds, in writing, that the applicant has demonstrated that the exploration and reclamation described in the application will:

(i) Be conducted in accordance with this chapter subpart V of these regulations, and any other applicable provisions of the regulatory program;

(ii) Not jeopardize the continued existence of an endangered or threatened species listed pursuant to section 4 of the Endangered Species Act of 1973 (16 U.S.C. 1533) or result in the destruction or adverse modification of critical habitat of those species; and

(iii) Not adversely affect any cultural or historical resources listed on the National Register of Historic Places, pursuant to the National Historic Preservation Act, as amended (16 U.S.C. Sec. 470 et seq., 1976, Supp. V), unless the proposed exploration has been approved by both the Permit Board and the agency with jurisdiction over such matters.

(iv) With respect to exploration activities on any lands protected under § 1105 of these regulations, minimize interference, to the extent technologically and economically feasible, with the values for which those lands were designated as unsuitable for surface coal mining operations. Before making this finding, the Permit Board must provide reasonable opportunity to the owner of the feature causing the land to come under the protection of § 1105 of these regulations, and, when applicable, to the agency with primary jurisdiction over the feature with respect to the values that caused the land to come under the protection of § 1105 of these regulations, to comment on whether the finding is appropriate.

(e) Terms of approval issued by the Permit Board shall contain conditions necessary to ensure that the exploration and reclamation will be conducted in compliance with this chapter, Subpart V of these regulations, and any other applicable provisions of the regulatory program.

(f) Notice and hearing.

(1) The Permit Board shall notify the applicant, the appropriate local government officials, and other commentors on the application, in writing, of its decision on the application. If the application is disapproved, the notice to the applicant shall include a statement of the reason for disapproval. Public notice of the decision on each application shall be posted by the Department at a public office in the vicinity of the proposed exploration operations.

(2) Any person having an interest which is or may be adversely affected by a decision of the Permit Board pursuant to paragraph *(d)* of this section shall have the opportunity for administrative and judicial review as set forth in §53-9-77.

§2105. Coal Exploration Compliance Duties

(a) All coal exploration and reclamation activities that substantially disturb the natural land surface shall be conducted in accordance with the coal exploration requirements of this chapter, Subpart V of these regulations, any other applicable provisions of the Permit Board, and any exploration permit term or condition imposed by the Permit Board.

(b) Any person who conducts any coal exploration in violation of the provisions of this chapter, Subpart V of these regulations, any other applicable provisions of the regulatory program, or any exploration permit term or condition imposed by the Permit Board, shall be subject to the provisions of §53-9-55, chapters 63 through 71 of these regulations, and the applicable inspection and enforcement provisions of the regulatory program.

§2107. Commercial Use or Sale

(a) Except as provided under § 2107(b), any person who intends to commercially use or sell coal extracted during coal exploration operations under an exploration permit~~,~~ shall first obtain a permit to conduct surface coal mining operations.

(b) With the prior written approval of the Executive Director, no permit to conduct surface coal mining operations is required for the sale or commercial use of coal extracted during exploration operations if such sale or commercial use is for coal testing purposes only. The person conducting the exploration shall file an application in the form of a letter requesting such approval with the Executive Director. The application shall demonstrate that the coal testing is necessary for the development of a surface coal mining and reclamation operation for which a surface coal mining operations permit application is to be submitted in the near future, and that the proposed commercial use or sale of coal extracted during exploration operations is solely for the purpose of testing the coal. The application shall contain the following:

(1) The name of the testing firm and the locations at which the coal will be tested.

(2) If the coal will be sold directly to, or commercially used directly by, the intended end user, a statement from the intended end user, or if the coal is sold indirectly to the intended end user through an agent or broker, a statement from the agent or broker. The statement shall include:

(A) The specific reason for the test, including why the coal may be so different from the intended user's other coal supplies as to require

testing;

(B) The amount of coal necessary for the test and why a lesser amount is not sufficient; and

(C) A description of the specific tests that will be conducted.

(3) Evidence that sufficient reserves of coal are available to the person conducting exploration or its principals for future commercial use or sale to the intended end user, or agent or broker of such user identified above, to demonstrate that the amount of coal to be removed is not the total reserve, but is a sampling of a larger reserve.

(4) An explanation as to why other means of exploration, such as core drilling, are not adequate to determine the quality of the coal and/or the feasibility of developing a surface coal mining operation.

§2109. Public Availability of Information

(a) Except as provided in paragraph (b) of this section, all information submitted to the Department under this Chapter shall be made available for public inspection and copying at the offices of the Department in Jackson.

(b) The Department shall keep information confidential if the person submitting it complies with §53-9-43 and obtains a finding of confidentiality from the Commission in accordance with §49-17-39.

(c) Information requested to be held as confidential under §2109(b) of this section shall not be made publicly available until after notice and opportunity to be heard before the Commission is afforded persons both seeking and opposing disclosure of the information.

Chapter 23. Surface Mining Permit Applications: Minimum Requirements for Legal, Financial, Compliance and Related Information

§2301. Responsibility

It is the responsibility of the permit applicant to provide to the Permit Board all of the information required by this Chapter.

§2303. Applicability

This Chapter applies to any person who applies for a permit to conduct surface coal mining and reclamation operations.

§2305. Identification of Interests

An application shall contain the following information, except that the submission of a social security number is voluntary:

(a) a statement as to whether the applicant is a corporation, partnership, single proprietorship, association or other business entity;

(b) the name, address, telephone number and, as applicable, social security number and employer identification number of the:

(1) applicant;

(2) applicant's resident agent; and

(3) person who will pay the abandoned mine land reclamation fee;

(c) for each person who owns or controls the applicant under the definition of owned or controlled and owns or controls in §105, as applicable:

1. the person's name, address, social security number and employer identification number;

2. the person's ownership or control relationship to the applicant, including percentage of ownership and location in organizational structure;

3. the title of the person's position, date position was assumed and, when submitted under §3123(f), date of departure from the position;

4. for the applicant and each partner or principle shareholder of the applicant, each additional name and identifying number, including employer identification number, federal or state permit number, and MSHA number with date of issuance, under which the person owns or controls, or previously owned or controlled, a surface coal mining and reclamation operation in the United States within the five years preceding the date of the application; and

5. the application number or other identifier of, and the regulatory authority for, any other pending surface coal mining operation permit application filed by the applicant in any state in the United States;

(d) For any surface coal mining operation owned or controlled by either the applicant or by any person who owns or controls the applicant under the definition of owned or controlled and owns or controls in §105, the operation's:

(1) name, address, identifying numbers, including employer identification number, federal or state permit number and MSHA number, the date of issuance of the MSHA number, and regulatory authority; and

(2) ownership or control relationship to the applicant, including percentage of ownership and location in organizational structure;

(e) The name and address of each legal or equitable owner of record of the surface and mineral property to be mined, each holder of record of any leasehold interest in the property to be mined, and any purchaser of record under a real estate contract for the property to be mined;

(f) the name and address of each owner of record of all property (surface and subsurface) contiguous to any part of the proposed permit area;

(g) the MSHA numbers for all mine-associated structures that require MSHA approval;

(h) A statement of all lands, interest in lands, options or pending bids on interests held or made by the applicant for lands contiguous to the area described in the permit application. Any claim of confidentiality for this information must be presented to the Commission prior to the submission of the information pursuant to §53-9-43.

(I) After an applicant is notified that his or her application is approved, but before the permit is issued, the applicant shall, as applicable, update, correct or indicate that no change has occurred in the information previously submitted under §2305(a)-(d);

(j) The applicant shall submit the information required by this Section and by §2307 in any form required by the Department.

§2307. Compliance Information

Each application shall contain:

(a) a statement of whether the applicant, any subsidiary, affiliate or persons controlled by or under common control with the applicant has had a federal or state mining permit suspended or revoked in the five years preceding the date of submission of the application; or forfeited a performance bond or similar security deposited in lieu of bond;

(b) if any such suspension, revocation or forfeiture has occurred, a brief explanation of the facts involved if any such suspension, revocation, or forfeiture referred to in §2307 (a), including:

(1) identification number and date of issuance of the permit, and the date and amount of bond or similar security;

(2) identification of the authority that suspended or revoked the permit or forfeited the bond and the stated reasons for that action;

(3) the current status of the permit, bond or similar security involved;

(4) the date, location and type of any administrative or judicial proceedings initiated concerning the suspension, revocation or forfeiture; and

(5) the current status of the proceedings.

The applicant shall submit the information required by this section and in a form required by the Department.

(c) A list of all violation notices received by the applicant during the three-year period preceding the application date, and a list of all outstanding violation notices received prior to the date of the application by any surface coal mining operation that is deemed or presumed to be owned or controlled by either the applicant or any person who is deemed or presumed to own or control the applicant under the definition of "owned or controlled" and "owns or controls" in §105. For each notice of violation issued pursuant to §6503 or under a federal or state program for which the abatement period has not expired, the applicant shall certify that such notice of violation is in the process of being corrected to the satisfaction of the agency with jurisdiction over the violation. For each violation notice reported, the list shall include the following information, as applicable:

(1) any identifying numbers for the operation, including the federal or state permit number and MSHA number, the dates of issuances of the violation notice and MSHA number, the name of the person to whom the violation notice was issued, and the name of the issuing regulatory authority, Department or agency;

(2) a brief description of the particular violation alleged in the notice;

(3) the date, location and type of any administrative or judicial proceedings initiated concerning the violation including, but not limited to, proceedings initiated by the applicant to obtain administrative or judicial review of the violations;

(4) the current status of the proceedings and of the violation notice; and

(5) the actions, if any, taken by the applicant to abate the violation;

(d) After an applicant is notified that his or her application is approved, but before the permit is issued, the applicant shall, as applicable, update, correct or indicate that no change has occurred in the information previously submitted under this Section.

§2309. Right of Entry and Operation Information

(a) Each application shall contain a description of the documents upon which the applicant bases his or her legal right to enter and begin surface mining and reclamation operation activities in the permit area and whether that right is the subject of pending litigation. The description shall identify those documents by type and date of execution, identify the specific lands to which the document pertains, and explain the legal rights claimed by the applicant.

(b) Where the private mineral estate has been severed from the private surface estate, where such severance is authorized under Mississippi law, the application shall also provide for lands within the permit area:

(1) a copy of the written consent of the surface owner to the extraction of coal by surface mining methods; or

(2) a copy of the document of conveyance that expressly grants or reserves the right to extract the coal by surface mining methods; or

(3) if the conveyance does not expressly grant the right to extract the coal by surface

mining methods, documentation that, under the applicable state law, the applicant has the legal authority to extract the coal by these methods.

(c) Nothing in this Section shall be construed to afford the Commission or Permit Board the authority to adjudicate property title disputes.

§2311. Relationship to Areas Designated Unsuitable for Mining

(a) Each application shall contain a statement of available information on whether the proposed permit area is within an area designated unsuitable for surface mining activities under Chapters 11, 13 and 15 or under study for designation in an administrative proceeding under those Chapters.

(b) If an applicant proposes to conduct surface mining activities within 300 feet of an occupied dwelling, the application shall contain the waiver of the owner of the dwelling as required by §1107(e).

(c) If an applicant proposes to conduct surface mining activities with 100 feet of a public road, the application shall contain the necessary information and meet the requirements of §1107(d).

§2313. Permit Term Information

(a) Each application shall state the anticipated or actual starting and termination date of each phase of the surface coal mining and reclamation operations and the anticipated number of acres of land to be affected for each phase of mining and over the total life of the mine.

(b) If the applicant proposes to conduct the surface coal mining and reclamation operations in excess of five years, the application shall contain the information needed for the showing required under §3121(a).

§2315. Personal Injury and Property Damage Insurance Information

Each permit application shall contain either a certificate of liability insurance or evidence that the self-insurance requirements in §4309 are satisfied.

§2317. Identification of Other Licenses and Permits

Each application shall contain a list of all other licenses and permits needed by the applicant to

conduct the proposed surface mining activities. This list shall identify each license and permit by:

(a) type of permit or license;

(b) name and address of issuing authority;

(c) identification numbers of applications for those permits or licenses or, if issued, the identification numbers of the permits or licenses;

(d) if a decision has been made, the date of approval or disapproval by each issuing authority.

§2319. Identification of Location of Public Office for Filing of Application

Each application shall identify, by name and address, the chancery clerk's office where the applicant will simultaneously file a copy of the complete application for public inspection under §3103.

§2321. Newspaper Advertisement and Proof of Publication

A copy of the newspaper advertisement of the application and proof of publication of the advertisement shall be filed with the Department and made a part of the complete application, not later than four weeks after the last date of publication required under §53-9-37 and §3103.

§2323. Facilities or structures used in common

The plans of a facility or structure that is to be shared by two or more separately permitted mining operations may be included in one permit application and referenced in the other applications. In accordance with Chapter 39, each permittee shall bond the facility or structure unless the permittees sharing it agree to another arrangement for assuming their respective responsibilities. If such agreement is reached, then the application shall include a copy of the agreement between or among the parties setting forth the respective bonding responsibilities of each party for the facility or structure. The agreement shall demonstrate to the satisfaction of the Permit Board that all responsibilities under the regulations for the facility or structure will be met.

§2325. Additional Information

The Permit Board may require additional information of the applicant if the Permit Board determines that the additional information is necessary to be considered in the Permit Board's decision-making process concerning the issuance, denial, modification or revocation of a permit.

Chapter 25. Surface Mining Permit Applications: Minimum Requirements for Information on Environmental Resources

§2501. Responsibilities

a. It is the responsibility of the applicant to provide, except where specifically exempted in this Chapter, all information required by this Chapter in the application.

b. It is the responsibility of the Department to provide information for applications as specifically required by this Chapter.

§2503. General Requirements

Each permit application shall include a description of the existing, premining environmental resources within the proposed permit area and adjacent areas that may be affected or impacted by the proposed surface mining activities.

§2505. General Environmental Resources Information

Each application shall describe and identify:

(a) the size, sequence and timing of the subareas for which it is anticipated that individual permits for mining will be requested and the lands subject to surface coal mining operations over the estimated total life of the proposed surface mining activities;

(b) the nature of cultural, historic and archaeological resources listed or eligible for listing on the National Register of Historic Places and known archaeological features within the proposed permit and adjacent areas. The description shall be based on all available information including, but not limited to, data of state and local archaeological, historical and cultural preservation agencies.

(c) The Permit Board may require the applicant to identify and evaluate important historic and archeological resources that may be eligible for listing on the National Register of Historic Places, through

(1) collection of additional information,

(2) conduct of field investigation, or

(3) other appropriate analyses.

§2507. Description of Hydrology and Geology: General Requirements

Each application shall contain a description, provided by, or under the direction of, a qualified Registered Professional Geologist or Registered Professional Engineer as required by the Department, of the geology, hydrology, and water quality and quantity of all lands within the proposed permit area, the adjacent area and the cumulative impact area. The description shall include information on the characteristics of all surface water and ground water within the cumulative impact area, and any water which will flow into or receive discharges of water from the cumulative impact area. The description shall be prepared according to this chapter and conform to the following:

(a) Sampling and analysis methodology.

(1) Information on hydrology, water quality and quantity, and geology related to hydrology of areas outside the proposed permit area and within the cumulative impact area shall be provided by the Department, to the extent that this data is available from an appropriate federal or state agency.

(2) Sampling and Analysis Methodology. All water quality analyses performed to meet the requirements of this Section shall be conducted according to the methodology in the 15th edition of "Standard Methods for the Examination of Water and Wastewater," which is incorporated by reference, or the methodology in 40 CFR Parts 136 and 434. Water quality sampling performed to meet the requirements of this Section shall be conducted according to either methodology listed above when feasible. "Standard Methods for the Examination of Water and Wastewater" is a joint publication of the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation and is available from the American Public Health Association, 1015 15th Street, NW., Washington, D.C. 20036. This document is also available for inspection at the Office of the Federal Register, Room 700, 800 N. Capitol Street, NW., Washington, D.C.; at the Office of Surface Mining, Administrative Record, U.S. Department of the Interior, Room 210, 1951 Constitution Avenue, NW., Washington, D.C.; at the OSM Mid-Continent Regional Coordinating Center, U.S. Department of the Interior, 501 Belle Street, Alton, IL; at the OSM Appalachian Regional Coordinating Center, U.S. Department of the Interior, Building, Parkway Center, Pittsburgh, PA.; and at the OSM Western

Regional Coordinating Center, U.S. Department of the Interior, 1999 Broadway, Suite 3320, Denver, CO.

(b) If this information is not available from those agencies, the applicant may gather and submit this information to the Department as part of the permit application.

(c) The permit shall not be approved by the Permit Board until this information is made available in the application.

(d) Additionally, the Department may require the following, or equivalent information, to be included in the application or otherwise provided to the Department:

(1) Copies of all original field data collection notes and/or forms. Originals shall be maintained by the permit applicant as records subject to inspection pursuant to §6305.

(2) Copies of all original data reduction calculations. The copies shall include, but not be limited to, calculations, graphs, charts, and computer models.

(3) An explanation of or reference for any methodology used for sampling and analysis, data reduction, or calculations for any information value provided.

(4) A Quality Assurance Quality Control (QA/QC) manual to the Department for any division, company, party and/or subcontractor utilized to collect information on hydrogeology, water quality and quantity, or geology required for the permit sought.

(5) A work plan providing the procedure of how any testing, analysis, methodology and/or any other manner for collecting and analyzing information required in this Chapter and Chapters 27 and 29, submitted to the Department for approval prior to conducting such effort.

(e) The use of modeling techniques may be included as part of the permit application, but the same surface and ground-water information may be required for each site as when models are not used.

§2509. Geology Description

(a) General. Each application shall include geologic information provided by, or under the direction of, a qualified Registered Professional Geologist in sufficient detail to assist in determining:

(1) the probable hydrologic consequences of the operation upon the quality and quantity of surface water and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary;

(2) all potentially acid- or toxic-forming strata down to and including the stratum immediately below the lowest coal seam to be mined; and

(3) whether reclamation as required by this Chapter can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

(b) Geologic information shall include, at a minimum, the following:

(1) a description of the geology of the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. The description shall include the areal and structural geology of the permit and adjacent areas and other parameters which influence the required reclamation, and the occurrence, availability, movement, quantity and quality of potentially impacted surface and ground waters. It shall be based on:

(A) the cross-sections, maps and plans required by §2537;

(B) the information obtained under §2509(b) and (c); and

(C) geologic literature and practices;

(2) analyses of samples collected from test borings, drill cores, or fresh, unweathered, uncontaminated samples from rock outcrops from the permit area, down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest seam to be mined which may be adversely impacted by mining. The analyses shall result in the following:

(A) logs showing the lithologic characteristics including physical properties and thickness of each stratum and location of ground water where occurring;

(B) chemical analyses identifying those strata that may contain acid- or toxic-forming or alkalinity-producing materials and determining their content, except that the Department may find that the analysis for alkalinity-producing materials is unnecessary; and

(C) chemical analyses of the coal seam for acid- or toxic-forming materials, including the total sulfur and pyritic sulfur, except that the Department may find that the analysis of pyritic sulfur content is unnecessary;

(D) a statement of the result of test borings or core sampling from the permit area. The statement shall include logs of the drill holes, the thickness of the coal seam found, an analysis of the chemical properties of the coal. The sulphur content of any coal seam, chemical analysis of potentially acid or toxic forming sections of the overburden and a chemical analysis of the stratum lying immediately underneath the coal to be mined, except that the Permit Board may find by a written determination that this requirement is unnecessary.

(c) If determined to be necessary to protect the hydrologic balance or to meet the performance standards of these regulations, the Department may require the collection, analysis and description of geologic information in addition to that required by §2509(b).

(d) An applicant may request the Permit Board to waive in whole or in part the requirements of §2509(b)(2). The waiver may be granted only if the Permit Board finds in writing that the collection and analysis of such data are unnecessary because other equivalent information is available to the Permit Board in a satisfactory form pursuant to §53-9-25(c) of the Act.

§2511. Ground-Water Information

(a) Ground-water information shall be provided by, or under the direction of, a qualified Registered Professional Geologist. The application shall include the location and ownership for the permit and adjacent areas of existing wells, springs and other ground-water resources, seasonal quality and quantity of ground water, and usage. Water quality descriptions shall include, at a minimum, total dissolved solids or specific conductance corrected to 25 C, pH, total iron and total manganese. Ground-water quantity descriptions shall include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam, and each water-bearing stratum above and potentially impacted stratum below the coal seam.

(b) The Department also may require the applicant to provide a well location inventory for the permit and adjacent areas to identify any permitted or non-permitted wells, including

information regarding the following:

(1) Specific location;

(2) ownership;

(3) well specifications such as construction, depth, diameter, screened interval, date constructed, status, use, etc.;

(4) geologic logs and ground water information; and

(5) permit number, if applicable.

§2513. Surface-Water Information

The application shall include the name, location, ownership and description of all surface-water bodies such as streams, lakes and impoundments, the location of any discharge into any surface-water body in the proposed permit and adjacent areas, and information on surface-water quality and quantity sufficient to demonstrate seasonal variation and water usage. Water quality descriptions shall include, at a minimum, baseline information on total suspended solids, total dissolved solids or specific conductance corrected to 25 C, pH, total iron and total manganese. Baseline acidity and alkalinity information shall be provided if there is a potential for acid drainage from the proposed mining operation. Water quantity descriptions shall include, at a minimum, baseline information on seasonal flow rates.

§2515. Supplemental Information

If the determination of the probable hydrologic consequences (PHC) required by §2523 indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of surface- or ground-water supplies, then information supplemental to that required under §§2511 and 2513 shall be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities. Such supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata, flood flows, or analysis of other water quality or quantity characteristics which shall be prepared by, or under the direction of a qualified Registered Professional Geologist or Registered Professional Engineer as required by the Department.

§2517. Baseline Cumulative Impact Area Information

(a) Hydrologic and geologic information for the cumulative impact area necessary to assess the probable cumulative hydrologic impacts of the proposed operation and all anticipated mining

on surface- and ground-water systems as required by §2525 shall be obtained by the Department if available from appropriate federal or state agencies, provided this information is derived from data provided by or under the supervision of a qualified Registered Professional Geologist or Registered Professional Engineer as required by the Department.

(b) If the information is not available from such agencies, then the applicant may gather and submit this information to the Department as part of the permit application, provided this information is derived from data provided by or under the supervision of a qualified Registered Professional Geologist or Registered Professional Engineer as required by the Department.

(c) The permit shall not be approved until the necessary hydrologic and geologic information prepared by, or under the supervision of a qualified Registered Professional Geologist or Registered Professional Engineer as required by the Department, is available to the Permit Board.

§2519. Modeling

The use of modeling techniques, interpolation or statistical techniques may be included as part of the permit application, but actual surface- and ground-water information may be required by the Department for each site even when such techniques are used.

§2521. Alternative Water Source Information

If the PHC determination required by §2523 indicates that the proposed mining operation may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose, then the application shall contain information on water availability and alternative water sources, including the suitability of alternative water sources for existing premining uses and approved postmining land uses.

§2523. Probable Hydrologic Consequences Determination

(a) The application shall contain a determination of the probable hydrologic consequences (PHC) of all anticipated mining within the permit area upon the quality and quantity of surface water and ground water under seasonal flow conditions for the proposed permit and adjacent areas.

(b) The PHC determination shall be based on baseline hydrologic, geologic and other information collected for the permit application and may include data statistically representative of the site. The baseline hydrologic, geologic and other information provided

in §2523 shall have been acquired, assimilated, or derived by, or under the supervision of a qualified Registered Professional Geologist.

(c) The PHC determination shall include findings on:

(1) whether adverse impacts may occur to the hydrologic balance;

(2) whether acid- or toxic-forming materials are present that could result in the contamination of surface-water or ground-water supplies;

(3) whether the proposed operation may proximately result in contamination, diminution or interruption of an underground or surface source of water within the proposed permit or adjacent areas which is used for domestic, agricultural, industrial or other legitimate purpose; and

(4) what impact the proposed operation will have on:

(A) sediment yield from the disturbed area;

(B) acidity, total suspended and dissolved solids and other important water quality parameters of local impact;

(C) flooding or streamflow alteration;

(D) ground- and surface-water availability; and

(E) other characteristics as required by the Department.

d. An application for a permit modification shall be reviewed by the Department to determine whether a new or updated PHC determination shall be required.

§2525. Cumulative Hydrologic Impact Assessment

(a) The Department shall provide an assessment of the probable cumulative hydrologic impacts (CHIA) of the proposed operation and all anticipated mining upon surface- and ground-water systems in the cumulative impact area. The CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The Department may allow the applicant to submit data and analyses relevant to the CHIA with the permit application.

(b) An application for a permit modification shall be reviewed by the Department to determine whether a new or updated CHIA shall be required.

§2527. Climatological Information

(a) When requested by the Department, the application shall contain a statement of the climatological factors that are representative of the proposed permit area, including:

(1) the average seasonal precipitation;

(2) the average direction and velocity of prevailing winds; and

(3) seasonal temperature ranges.

(b) The Department may request such additional data as deemed necessary to ensure compliance with the requirements of this Subpart.

§2529. Vegetation Information

(a) The permit application shall contain a map that delineates existing vegetative types and a description of the plant communities within the proposed permit area and within any proposed reference area. This description shall include information adequate to predict the potential for reestablishing vegetation.

(b) Sufficient adjacent areas shall be included on the map or aerial photograph to allow evaluation of vegetation as important habitat for fish and wildlife for those species of fish and wildlife identified under §2713.

§2531. Soil Resources Information

(a) The applicant shall provide adequate soil survey information of the permit area consisting of the following: a map delineating different soils; soil identification; soil description; and present and potential productivity of existing soils.

(b) Where the applicant proposes to use selected overburden materials as a supplement or substitute for topsoil, the application shall provide results of the analyses, trials and tests required under §5311.

§2533. Land-Use Information

The application shall contain a statement of the condition, capability and productivity of the land within the proposed permit area, including:

(a) a map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within five years before the anticipated date of beginning the proposed operations, the historic use of the land shall also be described. In the case of previously mined land, the use

of the land prior to any mining shall also be described to the extent such information is available.

(b) a narrative of land capability and productivity, which analyzes the land-use description under §2533(a) in conjunction with other environmental resources information required under this Chapter. The narrative shall provide analyses of:

(1) the capability of the land before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover and the hydrology of the proposed permit area; and

(2) the productivity of the proposed permit area before mining, expressed as average yield of food, fiber, forage or wood products from such lands obtained under high levels of management. The productivity shall be determined by yield data or estimates for similar sites based on current data from the United States Department of Agriculture, state agricultural universities or appropriate state natural resource or agricultural agencies.

§2535. Maps: General Requirements

The permit application shall include maps showing:

(a) all boundaries of lands and names of present owners of record of those lands, both surface and subsurface, included in or contiguous to the permit area;

(b) the boundaries of land within the proposed permit area upon which the applicant has the legal right to enter and begin surface mining activities;

(c) the boundaries of all areas proposed to be affected over the estimated total life of the proposed surface mining activities, with a description of size, sequence and timing of the mining of subareas for which it is anticipated that additional permits will be sought;

(d) the location of all buildings on and within 1,000 feet of the proposed permit area, with identification of the current use of the buildings;

(e) the location of surface and subsurface man-made features within, passing through or passing over the proposed permit area including, but not limited to, major electric transmission lines, pipelines and agricultural drainage tile fields;

(f) the location and boundaries of any proposed reference areas for determining the success of revegetation;

(g) the locations of water supply intakes for current users of water flowing into, out of, and within a hydrologic area defined by the Department, and those surface waters which will receive discharges from affected areas in the proposed permit area;

(h) each public road located in or within 100 feet of the proposed permit area;

(I) the boundaries of any public park and locations of any cultural or historical resources listed or eligible for listing in the National Register of Historic Places and known archaeological sites within the permit or adjacent areas;

(j) each public or private cemetery or Indian burial ground located in or within 100 feet of the proposed permit area;

(k) any land within the proposed permit area and adjacent area which is within the boundaries of any units of the National System of Trails or the Wild and Scenic Rivers System, including study rivers designated under §5(a) of the Wild and Scenic Rivers Act; and

(l) other relevant information required by the Department.

§2537. Cross-Sections, Maps and Plans

(a) The application shall include cross-sections, maps and plans showing:

(1) elevations and locations of test borings and core sampling;

(2) elevations and locations of monitoring stations used to gather data for water quality and quantity, fish and wildlife, and air quality, if required, in preparation of the application;

(3) nature, depth and thickness of the coal seams to be mined, any coal or rider seams above the seam to be mined, each stratum of the overburden, and the stratum immediately below the lowest coal seam to be mined;

(4) all coal crop lines and the strike and dip of the coal to be mined within the proposed permit area;

(5) location and extent of known workings of active, inactive or abandoned underground mines, including mine openings to the surface within the proposed permit and adjacent areas;

(6) location and extent of subsurface water, if encountered, within the proposed permit or adjacent areas;

(7) location of surface-water bodies such as streams, lakes, ponds, springs, constructed or natural drains and irrigation ditches within the proposed permit and adjacent areas;

(8) location and extent of existing or previously surface-mined areas within the proposed permit area;

(9) location and dimensions of existing areas of spoil, waste and non-coal waste disposal, dams, embankments, other impoundments, and water treatment and air pollution control facilities within the proposed permit area;

(10) location, and depth if available, of gas and oil wells within the proposed permit area and water wells in the permit area and adjacent area;

(b) Geologic maps, plans and cross-sections included in a permit application which are required by this section shall be prepared by or under the direction of a qualified Registered Professional Geologist. Other maps, plans and cross-sections included in a permit application which are required by this Section shall be prepared by or under the direction of and certified by a qualified registered professional engineer and/or registered professional geologist, with assistance from experts in related fields such as land surveying and landscape architecture and shall be updated as required by the Department.

§2539. Prime Farmland Investigation

(a) All permit applications, whether or not prime farmland is present, shall include the results of a reconnaissance inspection of the proposed permit area to indicate whether prime farmland exists. The Department, in consultation with the U.S. Natural Resources Conservation Service, shall determine the nature and extent of the required reconnaissance inspection.

(b) Land shall not be considered prime farmland where the applicant can demonstrate one of the following:

(1) the land has not been historically used as cropland;

(2) the slope of the land is 10 percent or greater;

(3) other factors exist, such as a very rocky surface, or the land is frequently flooded during the growing season, more often than once in two years, and the flooding has reduced crop yields;

(4) on the basis of a soil survey of lands within the permit area, there are no soil map

units that have been designated prime farmland by the United States Natural Resources Conservation Service.

(c) If the reconnaissance inspection establishes that no land within the proposed permit area is prime farmland historically used for cropland, the applicant shall submit a statement that no prime farmland is present. The statement shall identify the basis upon which such a conclusion was reached.

(d) If the investigation indicates that lands within the proposed permit area may be prime farmlands, the applicant shall contact the United States Natural Resources Conservation Service to determine if a soil survey exists for those lands and whether the applicable soil map units have been designated as prime farmlands. If no soil survey has been made for the lands within the proposed permit area, the applicant shall cause such a survey to be made:

(1) when a soil survey of lands within the proposed permit area contains soil map units which have been designated as prime farmlands, the applicant shall submit an application in accordance with §2907 for such designated land;

(2) when a soil survey for lands within the proposed permit area contains soil map units which have not been designated as prime farmland after review by the United States Natural Resources Conservation Service, the applicant shall submit a request for negative determination for non-designated land with the permit application establishing compliance with §2539(b).

Chapter 27. Surface Mining Permit Applications: Minimum Requirements for Reclamation and Operation Plan

§2701. Responsibilities

It is the responsibility of the applicant to provide to the Department the information required by this Chapter, except where specifically exempted in this Chapter.

§2703. Operation Plan: General Requirements

Each application shall contain a description of the mining operations proposed to be conducted during the life of the mine within the proposed permit area including, at a minimum, the following:

(a) a narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by

tonnage, and the major equipment to be used for all aspects of those operations.

(b) a narrative explaining the construction, modification, use, maintenance, and removal of the following facilities (unless retention of such facilities is necessary for postmining land use as specified in §53109):

(1) dams, embankments and other impoundments;

(2) overburden and topsoil handling and storage areas and structures;

(3) coal removal, handling, storage, cleaning, and transportation areas and structures;

(4) spoil, coal processing waste, and non-coal waste removal, handling, storage, transportation, and disposal areas and structures;

(5) mine facilities; and

(6) water and air pollution control facilities.

§2705. Operation Plan: Existing Structures

(a) Each application shall contain a description of each existing structure proposed to be used in connection with or to facilitate the surface coal mining and reclamation operation. The description shall include:

(1) location;

(2) plans of the structure which describe its current condition;

(3) approximate dates on which construction of the existing structure was begun and completed; and

(4) a showing, including relevant monitoring data or other evidence, whether the structure meets the performance standards of Subpart V (Permanent Program Standards).

(b) Each application shall contain a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate the surface coal mining and reclamation operation. The compliance plan shall include:

(1) design specifications for the modification or reconstruction of the structure to meet the design and performance standards of Subpart V;

(2) a construction schedule which shows dates for beginning and completing interim steps and final reconstruction;

(3) provisions for monitoring the structure during and after modification or reconstruction to ensure that the performance standards of Subpart V are met; and

(4) a showing that the risk of harm to the environment or to public health or safety is not significant during the period of modification or reconstruction.

§2707. Operation Plan: Blasting

Each application shall contain a blasting plan for the proposed permit area explaining how the applicant intends to comply with the requirements of §§5347-5357 and including the following:

(a) information setting forth the limitations the operator will meet with regard to ground vibration and airblast, the bases for those limitations, and the methods to be applied in controlling the adverse effects of blasting operations;

(b) types and approximate amounts of explosives to be used for each type of blasting operation to be conducted;

(c) description of procedures and plans for recording and retention of information on the following during blasting:

(1) drilling patterns, including size, number, depths and spacing of holes;

(2) charge and packing of holes;

(3) types of fuses and detonation controls; and

(4) sequence and timing of firing holes;

(d) description of blasting warning and site access control equipment and procedures;

(e) description of types, capabilities, sensitivities and locations of use of any blast monitoring equipment and procedures proposed to be used;

(f) description of plans for recording and reporting to the Department the results of preblasting surveys, if required;

(g) description of unavoidable hazardous conditions for which deviations from the blasting schedule will be needed under §5351(a)(3);

(h) blasting operations within 500 feet of active underground mines require approval of the state and federal regulatory authorities concerned with the health and safety of underground miners.

§2709. Operation Plan: Maps and Plans

Each application shall contain maps and plans of the proposed permit and adjacent areas as follows:

(a) The maps and plans shall show the lands proposed to be affected throughout the operation and any change in a facility or feature to be caused by the proposed operations, if the facility or feature was shown under §§2535-2537.

(b) The following shall be shown for the proposed permit area:

(1) buildings, utility corridors and facilities to be used;

(2) the area of land to be affected within the proposed permit area, according to the sequence of mining and reclamation;

(3) each area of land for which a performance bond or other equivalent guarantee will be posted under Subpart IV;

(4) each coal storage, cleaning and loading area;

(5) each topsoil, spoil, coal waste and non-coal waste storage area;

(6) each water diversion, collection, conveyance, treatment, storage and discharge facility to be used;

(7) each air pollution collection and control facility;

(8) each source of waste and each waste disposal facility relating to coal processing or pollution control;

(9) each facility to be used to protect and enhance fish and wildlife and related environmental values;

(10) each explosive storage and handling facility; and

(11) location of each sedimentation pond, permanent water impoundment, coal processing waste bank, and coal processing waste dam and embankment, in accordance with §2725, and fill area for the disposal of excess spoil in accordance with §2735.

(c) Maps, plans and cross-sections required under §2709(b)(4),(5),(6),(10) and (11) shall be prepared by, or under the direction of, and certified by a qualified registered professional engineer and/or qualified registered professional geologist, with assistance from experts in related fields such as land surveying and landscape architecture, except that maps, plans and cross-sections for sedimentation ponds and spoil disposal facilities may only be prepared by a qualified registered professional engineer and/or registered professional geologist.

§2711. Air Pollution Control Plan

The application shall contain an air pollution control plan which includes the following:

(a) an air quality monitoring program, if required by the Department, to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices under §2711(b) to comply with applicable federal and state air quality standards;

(b) a plan for fugitive dust control practices, as required under §5381.

§2713. Fish and Wildlife Plan

(a) Resource Information. Each application shall include fish and wildlife resource information for the permit area and adjacent area.

(1) The scope and level of detail for such information shall be determined by the Department in consultation with state and federal agencies with responsibilities for fish and wildlife and shall be sufficient to design the protection and enhancement plan required under §2713(b).

(2) Site-specific resource information necessary to address the respective species or habitats shall be required when the permit area or adjacent area is likely to include:

(A) listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the secretary under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), or those species or habitats protected by similar state statutes;

(B) habitats of unusually high value for fish and wildlife such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes, or reproduction and wintering areas; or

(C) other species or habitats identified through agency consultation as requiring special protection under state or federal law.

(b) Protection and Enhancement Plan. Each application shall include a description of how, to the extent possible using the best technology currently available, the operator will minimize disturbances and adverse impacts on fish and wildlife and related environmental values, including compliance with the Endangered Species Act, during the surface coal mining and reclamation operations and how enhancement of these resources will be achieved where practicable. This description shall:

(1) be consistent with the requirements of §5383;

(2) apply, at a minimum, to species and habitats identified under §2713(a); and

(3) include:

(A) protective measures that will be used during the active mining phase of operation. Such measures may include the establishment of buffer zones, the selective location and special design of haul roads and powerlines, and the

monitoring of surface water quality and quantity;

(B) enhancement measures that will be used during the reclamation and postmining phase of operation to develop aquatic and terrestrial habitat. Such measures may include restoration of streams and other wetlands, retention of ponds and impoundments, establishment of vegetation for wildlife food and cover, and the replacement of perches and nest boxes. Where the plan does not include enhancement measures, a statement shall be given explaining why enhancement is not practicable.

(c) Fish and Wildlife Service Review. Upon request, the Department shall provide the resource information required under §2713(a) and the protection and enhancement plan required under §2713(b) to the U.S. Department of the Interior, Fish and Wildlife Service Regional or Field Office for their review. This information shall be provided within 10 days of receipt of the request from the Service.

§2715. Reclamation Plan: General Requirements

(a) Each application shall contain a plan for reclamation of the lands within the proposed permit area, showing how the applicant will comply with § 53-9-45 of the act, Subpart V of these regulations, and the environmental protection performance standards of the regulatory program. The plan shall include, at a minimum, all information required under Chapter 27.

(b) Each plan shall contain the following information for the proposed permit area:

(1) a detailed timetable for the completion of each major step in the reclamation plan;

(2) a detailed estimate of the cost of reclamation of the proposed operations required to be covered by a performance bond under Subpart IV with supporting calculations for the estimates;

(3) a plan for backfilling, soil stabilization, compacting and grading, with contour maps or cross-sections that show the anticipated final surface configuration of the proposed permit area, in accordance with §§5389-5395;

(4) a plan for removal, storage, and redistribution of topsoil, subsoil, and other material to meet the requirements of §§5309 and 5311. A demonstration of the suitability of topsoil substitutes or supplements under §5311(b) of this chapter shall be based upon analysis of the thickness of soil horizons, total depth, texture, percent coarse fragments, pH, and areal extent of the different kinds of soils. The Department may require other chemical and physical analyses, field-site trials, or greenhouse tests if determined to be necessary or desirable to demonstrate the suitability of the topsoil substitutes or supplements.

(5) a plan for revegetation as required in §§5397-53103, including, but not limited to, descriptions of the:

(A) schedule of revegetation;

(B) species and amounts per acre of seeds and seedlings to be used;

(C) methods to be used in planting and seeding;

(D) mulching techniques;

(E) irrigation, if appropriate, and pest and disease control measures, if any;

(F) measures proposed to be used to determine the success of revegetation as required in §53103; and

(G) a soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation.

(6) a description of the measures to be used to maximize the use and conservation of the coal resource as required in §5345;

(7) a description of measures to be employed to ensure that all debris, acid-forming and toxic-forming materials, and materials constituting a fire hazard are disposed of in accordance with §§5375 and 5391, and a description of the contingency plans which have been developed to preclude sustained combustion of such materials;

(8) a description, including appropriate cross-sections and maps, of the measures to be used to seal or manage mine openings. Further, a description, including appropriate cross sections and maps, of the measures to be used to seal or plug, case or manage exploration holes, other bore holes, wells and other openings within the proposed permit area shall be prepared by, or under the direction of, a qualified registered professional geologist pursuant to §§5303 and 5307; and

(9) a description of steps to be taken to comply with the requirements of the Clean Air Act (42 U.S.C. Sec. 7401 et seq.), the Clean Water Act (33 U.S.C. Sec. 1251 et seq.), and other applicable air and water quality laws and regulations and health and safety standards.

(10) any other information required by §53-9-29 of the Act.

§2717. Reclamation Plan: Protection of Hydrologic Balance

The application shall include a plan, with maps and descriptions, indicating how the relevant requirements of Chapter 53, including §§5313-5343, will be met. The plan shall be specific to the local hydrologic conditions. It shall contain the steps to be taken during mining and reclamation through bond release to minimize disturbances to the hydrologic balance within the permit and adjacent areas; to prevent material damage outside the permit area; to meet applicable federal and state water quality laws and regulations; and to protect the rights of present water users. The plan shall include the measures to be taken to: avoid acid or toxic drainage; prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow; provide water-treatment facilities when needed; control drainage; restore approximate

premining recharge capacity; and protect or replace rights of present water users. The plan shall specifically address any potential adverse hydrologic consequences identified in the PHC determination prepared under §2523 and shall include preventive and remedial measures.

§2719. Ground-Water Monitoring Plan

(a) The application shall include a ground-water monitoring plan based upon the PHC determination required under §2523 and the analysis of all baseline hydrologic, geologic and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the ground water for current and approved postmining land uses and to the objectives for protection of the hydrologic balance set forth in §2717. It shall identify the quantity and quality parameters to be monitored, sampling frequency and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance. At a minimum, total dissolved solids or specific conductance corrected to 25 C, pH, total iron, total manganese and water levels shall be monitored and data submitted to the Department at least every three months for each monitoring location. The Department may require additional monitoring.

(b) If an applicant can demonstrate by the use of the PHC determination and other available information that a particular water-bearing stratum in the proposed permit and adjacent areas is not one which serves as an aquifer which significantly ensures the hydrologic balance within the cumulative impact area, then monitoring of that stratum may be waived by the Permit Board.

§2721. Surface-Water Monitoring Plan

(a) The application shall include a surface-water monitoring plan based upon the PHC determination required under §2523 and the analysis of all baseline hydrologic, geologic, and other information in the permit application. The plan shall provide for the monitoring of parameters that relate to the suitability of the surface water for current and approved postmine land uses and to the objectives for protection of the hydrologic balance as set forth in §2717, as well as the effluent limitations found at 40 CFR Part 434.

(b) The plan shall identify the surface-water quantity and quality parameters to be monitored, sampling frequency and site locations. It shall describe how the data may be used to determine the impacts of the operation upon the hydrologic balance.

(1) At all monitoring locations in the surface-water bodies such as streams, lakes and impoundments that are potentially impacted or into which water will be discharged and at upstream monitoring locations, the total dissolved solids or specific conductance corrected to 25 C, total suspended solids, pH, total iron, total manganese and flow shall be monitored.

(2) For point-source discharges, monitoring shall be conducted in accordance with 40 CFR Parts 122, 123 and 434 and as required by the National Pollutant Discharge Elimination System permitting authority Department's Office of Pollution Control.

(c) The monitoring reports shall be submitted to the Department every three months. The Department may require additional monitoring.

§2723. Reclamation Plan: Post-mining Land Uses

(a) Each plan shall contain a detailed description of the proposed use, following reclamation of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land use policies and plans. This description shall explain:

(1) how the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use;

(2) where a land use different from the pre-mining land use is proposed, all materials needed for approval of the alternative use under §53109;

(3) the consideration which has been given to making all of the proposed surface mining activities consistent with surface owner plans and applicable state and local land use plans and programs.

(b) The description shall be accompanied by a copy of the comments concerning the proposed use by the legal or equitable owner of record of the surface of the proposed permit area and the state and local government agencies which would have to initiate, implement, approve or authorize the proposed use of the land following reclamation.

§2725. Reclamation Plan: Siltation Structures, Impoundments, Banks, Dams and Embankments

(a) General. Each application shall include a general plan and a detailed design plan for each proposed siltation structure, water impoundment, and coal processing waste bank, dam or embankment within the proposed permit area.

(1) Each general plan shall:

(A) be prepared by, or under the direction of, and certified by a qualified registered professional engineer, and a registered professional geologist with assistance from experts in related fields such as land surveying and landscape architecture;

(B) contain a description, map and cross-section of the structure and its location;

(C) contain preliminary hydrologic and geologic information prepared by, or under the direction of a qualified Registered Professional Geologist as required to assess the hydrologic impact of the structure;

(D) contain a survey describing the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations if underground mining has occurred; and

(E) contain a certification statement which includes a schedule setting forth the dates that any detailed design plans for structures that are not submitted with the general plan will be submitted to the Department. The detailed design plan for a structure must be approved by the Department before construction of the structure begins.

(2) Impoundments meeting the Class B or C criteria for dams in the U.S. Department of Agriculture, Soil Conservation Service Technical Release No. 60 (210-VI-TR60, Oct. 1985), "Earth Dams and Reservoirs," Technical Release No. 60 (TR-60) shall comply with the requirements of this section for structures that meet or exceed the size of other criteria of the Mine Safety and Health Administration (MSHA). The technical release is hereby incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, order No. PB 87-157509/AS. Copies can be inspected at the OSM Headquarters Office, Office of Surface Mining Reclamation and Enforcement, Administrative Record, Room 210, 1951 Constitution Avenue, Washington, DC or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(3) Each detailed design plan for a structure that meets or exceeds the size or other criteria of the Mine Safety and Health Administration, 30 CFR 77.216(a), shall:

(A) be prepared by, or under the direction of, and certified by a qualified registered professional engineer, experienced in the design of similar earth and waste structures, with assistance from experts in related fields such as geology, land surveying and landscape architecture;

(B) include any geotechnical investigation, design and construction requirements for the structure;

(C) describe the operation and maintenance requirements for each structure; and

(D) describe the timetable and plans to remove each structure, if appropriate.

(4) Each detailed design plan for a structure not included in §2725(a)(2) or §2725(a)(3) shall:

(A) be prepared by, or under the direction of, and certified by a qualified registered professional engineer, experienced in the design of similar earth and waste structures;

(B) include any design and construction requirements for the structure, including any required geotechnical information;

(C) describe the operation and maintenance requirements for each structure; and

(D) describe the timetable and plans to remove each structure, if appropriate.

(b) Siltation Structures. Siltation structures, whether temporary or permanent, shall be designed in compliance with the requirements of §5321. Any siltation structure or earthen structure which will remain on the proposed permit area as a permanent water impoundment shall also be designed to comply with the requirements of §5327. Each plan shall, at a minimum, comply with the requirements of the Mine Safety and Health Administration, 30 CFR 77.216-1 and 77.216-2.

(c) Permanent and Temporary Impoundments. Permanent and temporary impoundments shall be designed to comply with the requirements of §5327. Each plan shall comply with the requirements of the Mine Safety and Health Administration, 30 CFR 77.216-1 and 77.216-2. The plan required to be submitted to the District Manager of MSHA under 30 CFR 77.216 shall be submitted to the Department as part of the permit application in accordance with §2725(a).

(d) Coal Processing Waste Banks. Coal processing waste banks shall be designed to comply with the requirements of §§5369-5377.

(e) Coal Processing Waste Dams and Embankments. Coal processing waste dams and embankments shall be designed to comply with the requirements of §§5369-5377. Each plan shall comply with the requirements of the Mine Safety and Health Administration, 30 CFR 77.216-1 and 77.216-2, and shall contain the results of a geotechnical investigation of the proposed dam or embankment foundation area, to determine the structural competence of the foundation which will support the proposed dam or embankment structure and the impounded material. The geotechnical investigation shall be planned and supervised by a registered professional engineer or registered professional geologist, according to the following:

(1) the number, location and depth of borings and test pits shall be determined using current prudent engineering practice for the size of the dam or embankment, quantity of material to be impounded, and subsurface conditions;

(2) the character of the overburden and bedrock, the proposed abutment sites, and any adverse geotechnical conditions which may affect the particular dam, embankment or reservoir site shall be considered and reviewed by both a qualified, registered professional engineer and registered professional geologist;

(3) all springs, seepage, and ground-water flow observed or anticipated during wet periods in the area of the proposed dam or embankment shall be identified on each plan;

(4) consideration shall be provided by both a qualified, registered professional engineer and registered professional geologist with respect to the possibility of mudflows, rock-debris falls or other landslides into the dam, embankment or impounded material.

(f) If the structure meets the Class B or C criteria for dams in TR-60 or meets the size or other criteria of 30 CFR 77.216(a), each plan under §§2725(b),(c) and (e) shall include a stability analysis of each structure. The stability analysis shall include, but not be limited to, strength parameters, pore pressures and long-term seepage conditions. The plan shall also contain a description of each engineering design assumption and calculation with a discussion of each alternative considered in selecting the specific design parameters and construction methods.

§2727. Reclamation Plan: Surface Mining Near Underground Mining

For surface mining activities within the proposed permit area to be conducted within 500 feet of an underground mine, the application shall describe the measures to be used to comply with §5367.

§2729. Diversions

Each application shall contain descriptions, including maps and cross-sections, of stream channel diversions and other diversions to be constructed within the proposed permit area to achieve compliance with §5317.

§2731. Protection of Public Parks and Historic Places

(a) For any publicly owned parks or any places listed on the National Register of Historic Places that may be adversely affected by the proposed operation, each plan shall describe the measures to be used:

(1) to prevent adverse impacts, or

(2) if valid existing rights exist or joint agency approval is to be obtained under § 3114(d), to minimize adverse impacts.

(b) The Permit Board may require the applicant to protect historic or archeological properties listed on or eligible for listing on the National Register of Historic Places through appropriate mitigation and treatment measures. Appropriate mitigation and treatment measures may be required to be taken after permit issuance provided that the required measures are completed before the properties are affected by any mining operation.

§2733. Relocation or Use of Public Roads

Each application shall describe, with appropriate maps and cross-sections, the measures to be used to ensure that the interests of the public and landowners affected are protected if, under §1107(d), the applicant seeks to have the Permit Board approve conduction of the proposed surface mining activities within 100 feet of the right-of-way line of any public road, except where mine access or

haul roads join that right-of-way, or seeks approval for relocating a public road.

§2735. Disposal of Excess Spoil

(a) Each application shall contain descriptions, including appropriate maps and cross-sections, of the proposed disposal site and design of the spoil disposal structures according to §§5359-5365. These plans shall describe the geotechnical investigation, design, construction, operation, maintenance and removal, if appropriate, of the site and structures.

(b) Each application shall contain the results of a geotechnical investigation of the proposed disposal site, including the following:

(1) the character of bedrock and any adverse geologic conditions in the disposal area;

(2) a survey identifying all springs, seepage, and ground-water flow observed or anticipated during wet periods in the area of the disposal site;

(3) a survey of the potential effects of subsidence of the subsurface strata due to past and future mining operations;

(4) a technical description of the rock materials to be utilized in the construction of those disposal structures containing rock chimney cores or underlain by a rock drainage blanket; and

(5) a stability analysis including, but not limited to, strength parameters, pore parameters, pore pressures and long-term seepage conditions. These data shall be accompanied by a description of all engineering design assumptions and calculations and the alternatives considered in selecting the specific design specifications and methods.

(c) If, under §5359(d), rock-toe buttresses or key-way cuts are required, the application shall include the following:

(1) the number, location and depth of borings or test pits which shall be determined with respect to the size of the spoil disposal structure and subsurface conditions; and

(2) engineering specifications utilized to design the rock-toe buttress or key-way cuts which shall be determined in accordance with §2735(b)(5).

§2737. Road Systems

(a) Plans and Drawings. Each applicant for a surface coal mining and reclamation permit shall submit plans and drawings for each road, as defined in §105, to be constructed, used or maintained within the proposed permit area in accordance with §§5313-5343, §53111 and §53113. The plans and drawings shall:

(1) include a map, appropriate cross-sections, design drawings and specifications for

road widths, gradients, surfacing materials, cuts, fill embankments, culverts, bridges, drainage ditches, low-water crossings and drainage structures;

(2) contain the drawings and specifications of each proposed road that is located in the channel of an intermittent or perennial stream, as necessary for approval of the road by the Permit Board in accordance with §§5313-5345, §53111, and §53113;

(3) contain the drawings and specifications for each proposed ford of perennial or intermittent streams that is used as a temporary route, as necessary for approval of the ford by the Permit Board in accordance with §§5313-5343 and §53113;

(4) contain a description of measures to be taken to obtain approval of the Permit Board for alteration or relocation of a natural stream channel under §5317 and §53113;

(5) contain the drawings and specifications for each low-water crossing of perennial or intermittent stream channels so that the Permit Board can maximize the protection of the stream in accordance with §§5313-5343; and

(6) describe the plans to remove and reclaim each road that would not be retained under an approved postmining land use, and the schedule for this removal and reclamation.

(b) Primary Road Certification. The plans and drawings for each primary road shall be prepared by, or under the direction of, and certified by a qualified registered professional engineer as meeting the requirements of this Chapter; current, prudent engineering practices; and any design criteria established by the Department.

(c) Standard Design Plans. The Department may establish engineering design standards for primary roads through the state program approval process, in lieu of engineering tests, to establish compliance with the minimum static safety factor of 1.3 for all embankments specified in §53113.

§2739. Support Facilities

Each applicant for a surface coal mining and reclamation permit shall submit a description, plans and drawings for each support facility to be constructed, used or maintained within the proposed permit area. The plans and drawings shall include a map, appropriate cross-sections, design drawings and specifications sufficient to demonstrate compliance with §53117 for each facility.

Chapter 29. Requirements for Permits for Special Categories of Mining

§2901. Experimental Practices Mining

(a) Experimental practices provide a variance from environmental protection performance standards of the act, Subpart V, and the regulatory program for experimental or research purposes, or to allow an alternative postmining land use, and may be undertaken if they are approved by the Commission and the director of the Office of Surface Mining and if they are

incorporated in a permit or permit modification issued by the Permit Board in accordance with the requirements of Subpart III.

(b) An application for an experimental practice shall contain descriptions, maps, plans and data which show:

(1) the nature of the experimental practice, including a description of the performance standards for which variances are requested, the duration of the experimental practice, and any special monitoring which will be conducted;

(2) how use of the experimental practice encourages advances in mining and reclamation technology or allows a postmining land use for industrial, commercial, residential or public use (including recreation facilities) on an experimental basis;

(3) that the experimental practice:

(A) is at least as environmentally protective during and after mining operations as those required by these regulations;

(B) the mining operations approved for particular land-use or other purposes are not larger or more numerous than necessary to determine the effectiveness and economic feasibility of the experimental practices;

(C) do not reduce the protection afforded public health and safety below that provided by these regulations.

(4) that the applicant will conduct monitoring of the effects of the experimental practice. The monitoring program shall ensure the collection, analysis and reporting of reliable data that are sufficient to enable the Department and the director of the Office of Surface Mining to:

(A) evaluate the effectiveness of the experimental practice; and

(B) identify, at the earliest possible time, potential risk to the environment and public health and safety which may be caused by the experimental practice during and after mining.

(c) Applications for experimental practices shall comply with the public notice requirements of §53-9-27 and §53-9-37 of the Act and §§3103-3111.

(d) No application for an experimental practice under this Section shall be approved until the Commission first finds in writing and the director of the Office of Surface Mining then concurs that:

(1) the experimental practice encourages advances in mining and reclamation technology or allows a postmining land use for industrial, commercial, residential or public use (including recreational facilities) on an experimental basis;

(2) the experimental practice is potentially more, or at least as, environmentally protective, during and after mining operations, as would otherwise be required by standards promulgated under Subpart V;

(3) the mining operations approved for a particular land use or other purpose are not larger or more numerous than necessary to determine the effectiveness and economic feasibility of the experimental practice; and

(4) the experimental practice does not reduce the protection afforded public health and safety below that provided by standards promulgated under Subpart V.

(e) Experimental practices granting variances from the special environmental protection performances standards of §§53-9-45 and 53-9-47 of the act applicable to prime farmland shall be approved only after consultation with the U.S. Department of Agriculture, Natural Resource Conservation Service.

(f) Each person undertaking an experimental practice shall conduct the periodic monitoring, recording and reporting program set forth in the application, and shall satisfy such additional requirements as the Permit Board or the director may impose to ensure protection of the public health and safety and the environment.

(g) Each experimental practice shall be reviewed by the Department at a frequency set forth in the approved permit, but no less frequently than every $2^1/_2$ years. After review, the Permit Board may require such reasonable modifications of the experimental practice as are necessary to ensure that the activities fully protect the environment and the public health and safety. Copies of the decision of the Permit Board shall be sent to the permittee and shall be subject to the provisions for administrative and judicial review of Chapter 33 and §53-9-77 of the Act.

(h) Revisions or modifications to an experimental practice shall be processed in accordance with the requirements of §3505. Any modification which proposes significant alterations in the experimental practice shall, at a minimum, be subject to the notice, hearing and public participation requirements of §§3103-3111, §53-9-37 of the Act and concurrence by the director of the Office of Surface Mining. Revisions shall not require concurrence by the director of the Office of Surface Mining, public notice, hearing, or public participation.

§2903. Steep Slope Mining

(a) This Section applies to any person who conducts or intends to conduct steep slope surface coal mining and reclamation operations, except:

(1) where an operator proposes to conduct surface coal mining and reclamation operations on flat or gently rolling terrain, leaving a plain or predominantly flat area, but on which an occasional steep slope is encountered as the mining operation proceeds; or

(2) to the extent that a person obtains a permit incorporating alternative requirements under §2905.

(b) Any application for a permit for surface coal mining and reclamation operations covered by this Section shall contain sufficient information to establish that the operations will be conducted in accordance with the requirements of § 53-9-45(3) and §5703.

(c) No permit shall be issued for any operations covered by this Section, unless the Permit Board finds, in writing, that in addition to meeting all other requirements of this Subpart, the operation will be conducted in accordance with the requirements of §5703.

§2905. Permits Incorporating Alternatives from Approximate Original Contour Restoration Requirements for Steep Slope Mining

(a) This Section applies to steep slope surface coal mining and reclamation operations under a regulatory program where the operation is not to be reclaimed to achieve the approximate original contour required by §§5389-5395 and §5703.

(b) The objective of this Section is to allow for an alternative to approximate original contour restoration pursuant to §53-9-45 (4) requirements on steep slopes for surface coal mining and reclamation operations to:

(1) improve watershed control of lands within the permit area and on adjacent lands; and

(2) make land within the permit area, after reclamation, suitable for an industrial, commercial, residential or public use, including recreational facilities.

(c) The Permit Board may issue a permit for surface mining activities incorporating an alternative to the requirement for restoration of the affected lands to their approximate original contour only if it first finds, in writing, on the basis of a complete application, that all of the following requirements and the applicable requirements of § 53-9-45 are met:

(1) the applicant has demonstrated that the purpose of the request for an alternative is to make the lands to be affected within the permit area suitable for an industrial, commercial, residential or public postmining land use;

(2) the proposed use, after consultation with the appropriate land-use planning agencies, if any, constitutes an equal or better economic or public use;

(3) the applicant has demonstrated compliance with the requirements for acceptable alternative postmining land uses of §53109;

(4) the applicant has demonstrated that the watershed of lands within the proposed permit area and adjacent areas will be improved by the operations. The watershed will only be deemed improved if:

(A) there will be a reduction in the amount of total suspended solids or other pollutants discharged to ground water or surface water from the permit area as compared to such discharges prior to mining, so as to improve public or private uses or the ecology of such waters; or, there will be reduced flood hazards within the watershed containing the permit area by reduction of the peak flow discharges from precipitation events or thaws;

(B) the total volume of flows from the proposed permit area, during every season of the year, will not vary in a way that adversely affects the ecology of any surface water or any existing or planned use of surface water or ground water;

(C) the Department's Office of Pollution Control approves the plan;

(5) the applicant has demonstrated that the owner of the surface of the lands within the permit area has knowingly requested, in writing, as part of the application, that an alternative requirement be allowed. The request shall be made separately from any surface owner consent given for the operations under §2309 and shall show an understanding that the alternative requirement could not be allowed without the surface owner's request;

(6) the applicant has demonstrated that the proposed operations will be conducted in compliance with the requirements of §53109 (d);

(7) after notification of appropriate federal, state and local governmental agencies providing an opportunity to comment on the proposed use and consultation with the appropriate land use planning agencies, if any, the proposed postmining use of the affected land is deemed by the Permit Board to constitute an equal or better economic or public use of the land as compared with the premining use;

(8) the proposed postmining land use is compatible with adjacent land uses and state and local land use planning, economically practical for the proposed use and designed and certified by a qualified registered professional engineer in conformance with professional standards established to assure the stability, drainage and configuration necessary for the intended use of the site;

(9) the watershed of the affected land is improved;

(10) the permittee shall place only the necessary amount of spoil off the mine bench to achieve the planned postmining land use and insure stability of the spoil retained on the bench.

(11) all other requirements of the act and these regulations will be met by the proposed operations.

(d) If an alternative requirement is allowed under this Section:

(1) the requirements of §53109 (d) shall be made a specific condition of the permit;

(2) the permit shall be specifically marked as containing an alternative requirement from approximate original contour.

(e) Any permits allowing an alternative requirement issued under this Section shall be reviewed by the Department to evaluate the progress and development of the mining activities, to establish that the operator is proceeding in accordance with the terms of the alternative requirement:

(1) within the sixth month preceding the third year from the date of its issuance;

(2) before each permit renewal; and

(3) not later than the middle of each permit term.

(f) If the permittee demonstrates to the Department at any of the times specified in §2905(e) that the operations involved have been and continue to be conducted in compliance with the terms and conditions of the permit, the requirements of the act and these regulations, the review required at that time need not be held.

(g) The terms and conditions of a permit allowing an alternative requirement under this Section may be modified at any time by the Permit Board, if it determines that more stringent measures are necessary to ensure that the operations involved are conducted in compliance with the requirements of the act and these regulations.

§2907. Prime Farmlands

This section applies to any person who conducts or intends to conduct surface coal mining and reclamation operations on prime farmlands historically used for cropland.

(a) Application Contents for Prime Farmland. If land within the proposed permit area is identified as prime farmland under §2539, the applicant shall submit a plan for the mining and restoration of the land. Each plan shall contain, as a minimum:

(1) a soil survey of the permit area according to the standards of the National Cooperative Soil Survey and in accordance with the procedures set forth in U.S. Department of Agriculture Handbook 436 "Soil Taxonomy" (U.S. Soil Conservation Service, 1975), as amended on March 22, 1982 and October 5, 1982, and Handbook 18, "Soil Survey Manual" (U.S. Soil Conservation Service, 1951), as amended on December 18, 1979, May 7, 1980, May 9, 1980, September 11, 1980, June 9, 1981, June 29, 1981, and November 16, 1982. The U.S. Natural Resources Conservation Service establishes the standards of the National Cooperative Soil Survey and maintains a National Soils Handbook which gives current acceptable procedures for

conducting soil surveys. This National Soils Handbook is available for review at area and state NRCS offices;

(A) U.S. Department of Agriculture Handbooks 436 and 18 are incorporated by reference as they exist on the date of adoption of this Section. Notices of changes made to these publications will be periodically published by OSM in the *Federal Register*. The handbooks are on file and available for inspection at the OSM Central Office, U.S. Department of the Interior, 1951 Constitution Avenue, NW., Washington, D.C., at each OSM Regional Coordinating Center and Field Office, and at the Department. Copies of these documents are also available from the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402, Stock Nos. 001-000-04612-8 and 001-000-04611-0, respectively. In addition, these documents are available for inspection at the national, state and area offices of the Natural Resource Conservation Service, U.S. Department of Agriculture, and at the *Office of the Federal Register*, 800 North Capitol Street, suite 700, Washington, D.C. Incorporation by reference provisions were approved by the director of the *Federal Register* on June 29, 1981;

(B) the soil survey shall include a description of soil mapping units and a representative soil profile as determined by the U.S. Natural Resources Conservation Service, including, but not limited to, soil-horizon depths, Ph, and the range of soil densities for each prime farmland soil unit within the permit area. Other representative soil-profile descriptions from the locality, prepared according to the standards of the National Cooperative Soil Survey, may be used if their use is approved by the State Conservationist, U.S. Natural Resources Conservation Service;

(2) a plan for soil reconstruction, replacement, and stabilization for the purpose of establishing the technological capability of the mine operator to comply with the requirements of Chapter 55;

(3) the moist bulk density of each major horizon of each prime farmland soil in the permit area. The moist bulk density shall be determined by laboratory tests of samples taken from within the permit area according to procedures set forth in "Soil Survey Laboratory Methods and Procedures for Collecting Soil Samples" (Soil Survey Investigations Report No. 1, United States Department of Agriculture, Soil Conservation Service, 1972). Other standard on-site methods of estimating moist bulk density may be used where these methods correct for particle size distribution and moisture content and are approved by the Natural Resources Conservation Service. In lieu of laboratory data from samples taken within the permit area, the Department may permit use of moist bulk density values representing the soil series where such values have been established by the Natural Resources Conservation

Service;

(A) the location of areas to be used for the separate stockpiling of the soil and plans for soil stabilization before redistribution;

(B) if applicable, documentation, such as agricultural school studies or other specific data from comparable areas, that supports the use of other suitable material, instead of the A, B or C soil horizon, to obtain on the restored area equivalent or higher levels of yield as on non-mined prime farmlands in the surrounding area under equivalent levels of management;

(C) plans for seeding or cropping the final graded disturbed land and the conservation practices to be used to adequately control erosion and sedimentation and restoration of an adequate soil moisture regime, during the period from completion of regrading until release of the performance bond or equivalent guarantee under Subpart IV. Proper adjustments for seasons must be proposed so that final graded land is not exposed to erosion during seasons when vegetation or conservation practices cannot be established due to weather conditions;

(D) available agricultural school studies or other scientific data for areas with comparable soils, climate and management (including water management) that demonstrate that the proposed method of reclamation will achieve, within a reasonable time, equivalent or higher levels of yield after mining as existed before mining;

(E) the productivity prior to mining, including the average yield of food, fiber, forage or wood products obtained under a high level of management;

(F) in all cases, soil productivity for prime farmlands shall be returned to equivalent levels of yield as non-mined prime farmland of the same soil type in the surrounding area under equivalent management practices as determined from the soil survey performed pursuant to §2907(a)(1).

(b) Consultation with Secretary of Agriculture.

(1) Before any permit is issued for areas that include prime farmlands, the Department shall consult with the State Conservationist of the U. S. Natural Resources Conservation Service.

(2) The Department shall obtain a list of prime farmland soils, their location, physical

and chemical characteristics, crop yields, and associated data necessary to support adequate prime farmland soil descriptions.

(3) The Department shall request the assistance of the State Conservationist in describing the nature and extent of the reconnaissance inspection required in §2539.

(4) The Department shall submit to the State Conservationist for review and comment on, the proposed method of soil reconstruction in the plan submitted under §2907(a). If the State Conservationist considers those methods to be inadequate, he or she may suggest revisions to the Department which result in more complete and adequate reconstruction.

(c) Issuance of Permit. A permit for the mining and reclamation of prime farmland may be granted by the Permit Board, if it first finds, in writing, upon the basis of a complete application, that:

(1) the approved proposed postmining land use of these prime farmlands will be cropland;

(2) the permit incorporates as specific conditions the contents of the plan submitted under §2907(a), after consideration of any revisions to that plan suggested by the secretary of agriculture under §2907(b);

(3) the applicant has the technological capability to restore the prime farmland, within a reasonable time, to equivalent or higher levels of yield as non-mined prime farmland in the surrounding area under equivalent levels of management;

(4) the proposed operations will be conducted in compliance with the requirements of Chapter 55 and other environmental protection performance and reclamation standards for mining and reclamation of prime farmland of the regulatory program.

(5) the aggregate total prime farmland acreage shall not be decreased from that which existed prior to mining. Water bodies, if any, to be constructed during mining and reclamation operations must be located within the post-reclamation non-prime farmland portions of the permit area. The creation of any such water bodies must be approved by the Permit Board and the consent of all affected property owners within the permit area must be obtained.

§2909. Coal Processing Plants or Support Facilities Not Located Within the Permit Area of a Specified Mine

(a) This Section applies to any person who operates or intends to operate a coal preparation plant in connection with a coal mine but outside the permit area for a specific mine. Any person who operates such a preparation plant shall obtain a permit from the Permit Board in accordance with the requirements of this Section.

(b) Any application for a permit for operations covered by this Section shall contain in the mining and reclamation plan specific plans, including descriptions, maps and cross-sections, of the construction, operation, maintenance and removal of the processing plants and associated support facilities. The plan shall demonstrate that those operations will be conducted in compliance with Chapter 59.

(c) No permit shall be issued for any operation covered by this Section, unless the Permit Board finds, in writing, that, in addition to meeting all other applicable requirements of this Subpart, the operations will be conducted in compliance with the requirements of Chapter 59.

§2911. In Situ Processing Activities

(a) This Section applies to any person who conducts or intends to conduct surface coal mining and reclamation operations utilizing in situ processing activities.

(b) An application for a permit for operations covered by this Section shall be made according to all requirements of 30 CFR Subchapter G applicable to underground mining activities, which are, for the specific and limited purposes of this Section, hereby adopted and made a part hereof. In addition, the mining and reclamation operations plan for operations involving in situ processing activities shall contain information establishing how those operations will be conducted in compliance with the requirements of Chapter 61, including:

(1) delineation of proposed holes and wells and production zone for approval of the Permit Board;

(2) specification of drill holes and casings proposed to be used;

(3) a plan for treatment, confinement or disposal of all acid-forming, toxic-forming, or radioactive gases, solids or liquids constituting a fire, health, safety or environmental hazard caused by the mining and recovery process; and

(4) plans for monitoring surface water and ground water and air quality, as required by the Permit Board.

(c) No permit shall be issued for operations covered by this Section, unless the Permit Board first finds, in writing, upon the basis of a complete application made in accordance with §2911(b), that the operation will be conducted in compliance with all requirements of 30 CFR Subchapter G relating to underground mining activities, Chapter 61, and 30 CFR Part 817, which is, for the specific and limited purposes of this section, hereby adopted and made a part hereof.

Chapter 31. Public Participation, Approval of Permit Applications and Permit Terms and Conditions

§3101. Responsibilities

(a) The Permit Board has the responsibility to approve or disapprove permits. The Department has the responsibility to review permit applications and to recommend to the Permit Board whether each application is complete and accurate and fulfills the requirements of the act and these regulations.

(b) The Department and the Permit Board and persons applying for permits under regulatory programs shall involve the public throughout the permit process of regulatory programs.

(c) The Commission shall assure implementation and enforcement of the requirements of this Chapter.

(d) The applicant shall provide all information in a complete permit application for review by the Department and action by the Permit Board in accordance with this Chapter.

§3103. Public Notices of Filing of Permit Applications

(a) Upon submission of a complete application for a permit, modification of an existing permit, or renewal of a permit under the act and these regulations, the applicant shall submit to the Permit Board a copy of the applicant's advertisement of the ownership, precise location and boundaries of the land to be affected. At the time of submission, the applicant shall place the advertisement for publication at least once a week for four (4) consecutive weeks in a local newspaper and in a regional newspaper of general circulation in the county in which the proposed surface coal mine is to be located. If no local newspaper of general circulation in the county is published, notice shall be published once a week for four (4) consecutive weeks in a regional newspaper of general circulation in the county in which the proposed surface coal mine is to be located and in a newspaper of general statewide circulation published in Jackson. The applicant shall place the advertisement in the newspaper within thirty (30) days of the Department's notification to the applicant that the application is complete. The advertisement shall contain, at a minimum, the following information:

(1) the name and address of the applicant;

(2) a map or description which shall:

(A) clearly show or describe towns, rivers, streams or other bodies of water, local landmarks, and any other information, including routes, streets or roads and accurate distance measurements, necessary to allow local residents to readily identify the proposed permit area;

(B) clearly show or describe the exact location and boundaries of the proposed permit area;

(C) state the name of the United States Geological Survey 7.5-minute quadrangle map(s) which contains the area shown or described; and

(D) if a map is used, indicate the north point;

(3) the location where a copy of the application is available for public inspection under §3103(d);

(4) the name and address of the Department in order that written comments, objections, or requests for informal conferences on the application may be submitted under §§3105-3109;

(5) if an applicant seeks a permit to mine within 100 feet of the outside right-of-way of a public road or to relocate or close a public road, except where public notice and hearing have previously been provided for this particular part of the road in accordance with §1107(d), a concise statement describing the public road, the particular part to be relocated or closed, and the approximate timing and duration of the relocation or closing;

(6) if the application includes a request for an experimental practice under §2901, a statement indicating that an experimental practice is requested and identifying the regulatory provisions for which a variance is requested.

(b) Upon receipt of a complete application for a permit, a modification of a permit, or a renewal of a permit, the Permit Board shall issue written notification of:

(1) the applicant's intention to surface mine a particularly described tract of land;

(2) the application number;

(3) where a copy of the application may be inspected; and

(4) where comments on the application may be submitted under §3105.

(c) The Permit Board's written notifications shall be sent to:

(1) federal, state and local government agencies with jurisdiction over or an interest in the area of the proposed operations including, but not limited to, the U.S. Department of Agriculture Natural Resources Conservation Service district office, the local U.S. Army Corps of Engineers district engineer, the National Park Service, state and federal fish and wildlife agencies, and the state historic preservation officer;

(2) local governmental agencies with jurisdiction to act with regard to land use, air or water quality planning in the area of the proposed operations;

(3) sewage and water treatment authorities and water companies, either providing

sewage or water services to users in the area of the proposed operations or having water sources or collection, treatment or distribution facilities located in these areas; and

(4) the federal or state governmental agencies with authority to issue all other permits and licenses needed by the applicant in connection with operations proposed in the application.

(5) regional planning agencies.

(d)

(1) Each applicant for a permit, modification of a permit, or renewal of a permit shall file, within ten (10) days after filing with the Permit Board, a copy of its application for public inspection with the clerk of the chancery court of the county or judicial district where the mining is to occur and where real property contiguous to the surface coal mining and reclamation operation is located, if that property is located in more than one (1) county or judicial district. Information determined to be confidential by the Commission pursuant to §53-9-43 shall be omitted. This copy of the application need not include confidential information exempt from disclosure under §53-9-43 and §3111.

(2) The applicant shall file any subsequent revision of the application with the clerk of the chancery court at the same time the revision is submitted to the Department.

§3104. Revisions of Permits

An application for a revision of a permit shall not be approved unless the executive director finds that reclamation as required by the act and these regulations can be accomplished under the revised reclamation plan. The revision shall be granted or denied by the executive director. A decision by the executive director to grant or deny a revision of a permit shall be subject to formal hearing and appeal as would an initial decision of the Permit Board under §49-17-29. A revision shall not be considered a modification.

§3105. Opportunity for Submission of Written Comments on Permit Applications

(a) Written comments or objections on the permit, modification of a permit, or renewal of a permit applications may be submitted to the Permit Board by the public entities to whom notification is provided under §53-9-37 and §3103(b) and (c). with respect to the effects of the proposed mining operations on the environment within their area of responsibility.

(b) These comments shall be submitted to the Permit Board in written form within 30 days of notice.

(c) The Permit Board shall immediately transmit a copy of all such comments for filing and public inspection at the chancery clerk's office where the applicant filed a copy of the application for permit under §53-9-27 of the Act and §3103(d). A copy shall also be

transmitted to the applicant.

§3107. Right to File Written Objections

(a) Any interested party or an officer or head of any federal, state, or local government agency or authority shall have the right to file written comments or objections to an initial or revised application for a permit, modification of a permit, or renewal of a permit with the Permit Board, within 30 days after the last publication of the newspaper notice required by §53-9-37(1) and §3103(a).

(b) The Permit Board shall, immediately upon receipt of any written objections:

(1) transmit a copy of them to the applicant;

(2) file a copy for public inspection at the clerk of the chancery court where the applicant filed a copy of the application for permit under §53-9-27 and §3103(d).

§3109. Public Hearings

(a) Procedure for Requests. Any interested party, or the officer or head of any federal, state or local government agency or authority may, in writing, request that the Permit Board hold a public hearing on any application for a permit, modification to a permit, or renewal of a permit. The request shall:

(1) briefly summarize the issues to be raised by the requestor at the hearing;

(2) be filed with the Permit Board not later than 45 days after the last publication of the newspaper advertisement placed by the applicant under §53-9-37(1) and §3103(a).

(3) The Permit Board shall conduct a public hearing prior to issuing a permit allowing a new surface coal mining and reclamation operation. The Permit Board may conduct a public hearing prior to issuing a permit modification or reissuing an existing permit, but shall hold a public hearing if requested under §53-9-37(2)(b).

(b) The Permit Board shall hold a public hearing within ninety (90) days following the receipt of the request. The Public Hearing shall be conducted according to the following:

(1) if requested under §53-9-37(2)(b) and §3109(a)(2), it shall be held in the locality of the proposed mining and reclamation;

(2) a notice including the date, time, subject matter and location of the public hearing shall be sent to the applicant and all parties who requested a public hearing and advertised by the Permit Board pursuant to §53-9-37(2)(b);

(3) The Permit Board shall arrange with the applicant, upon request by an interested party requesting a public hearing, reasonable access to the area of the proposed surface coal mining and reclamation operation for the purpose of gathering

information relevant to the proceeding before the public hearing. If such request is made less than one (1) week before the scheduled date of the public hearing, access may not be provided before the public hearing;

(4) The public hearing shall be conducted by a representative of the Permit Board, who may accept oral or written statements and any other relevant information from any participant. An electronic or stenographic record shall be made of the public hearing. The record shall be maintained and shall be accessible to the applicant and to the public until final release of the applicant's performance bond or other collateral.

(c) If all persons requesting the public hearing stipulate agreement before the requested public hearing and withdraw their request, the public hearing may be canceled at the discretion of the Permit Board. This paragraph does not apply to mandatory public hearings for new surface coal mining and reclamation operations.

(d) Public hearings held in accordance with this Section may be used by the Permit Board as the public hearing required under the act and §1107(d) on the proposed uses or relocation of public roads.

(e) Nothing in this section shall be construed to prevent the Permit Board on its own motion from conducting public hearings to obtain information from the public regarding the proposed surface coal mining operations.

§3111. Public Availability of Information in Permit Applications on File with the Office

(a) General Availability. Except as provided in §53-9-43 and §§3111(b), all applications for permits, modifications of a permit, revisions, renewal of a permit, and transfers, assignments or sales of permit rights, information pertaining to coal seams, test borings, core sampling or soil samples in an application on file with the Permit Board shall be available, at reasonable times, for public inspection and copying.

(b)

(1) Information submitted to the Department, Commission or Permit Board in an application and concerning trade secrets or privileged commercial or financial information relating to the competitive rights of an applicant and which is specifically identified as confidential, shall not be available for public examination and shall not be considered as a public record if:

(A) The applicant submits a written confidentiality claim to the Commission before the submission of the information; and

(B) The Commission determines the confidentiality claim to be valid in accordance with §3111(b)(2).

(2) Only the following types of information submitted in an application may be held confidential:

(A) Information that pertains only to the analysis of the chemical and physical properties of the coal to be mined, except information on components of such coal which are potentially toxic in the environment;

(B) Information required under §§2715-2727 that is not otherwise on public file pursuant to state law; and

(C) Information on the nature and location of archeological resources on public land and Indian land as required under the Archeological Resources Protection Act of 1979 (Pub. L. 96-95, 93 Stat.721, 16 U.S.C. 470).

(3) The confidentiality claim shall include a generic description of the nature of the information included in the submission. Any information for which a confidentiality claim is asserted shall not be disclosed pending the outcome of any formal hearing and all appeals concerning the confidentiality of the information.

(4) Information on the nature and location of archaeological resources on public land and Indian land as required under the Archaeological Resources Protection Act of 1979 (Pub. L. 96-95, 93 Stat. 721, 16 U.S.C. 470) shall be treated by the Commission, Permit Board and Department as required under these Acts.

§3113. Review of Permit Applications

(a) Process

(1) The applicant for a permit or modification of a permit shall have the burden of establishing that his application is in compliance with all the requirements of these regulations.

(2) The Permit Board shall review the complete application for a permit, modification, or renewal; written comments and written objections submitted; and records of any public hearing held under §53-9-37 and §§3105-3109 of these regulations.

(b) Review of Violations: Based on a review of all reasonably available information concerning violation notices and ownership or control links involving the applicant, including information obtained pursuant to §§3131, 3133, 2305, and 2307, the Permit Board shall not issue the permit if any surface coal mining and reclamation operation owned or controlled by either the applicant or by any person who owns or controls the applicant is currently in violation of the Act, Federal Act, any state or federal rule or regulation promulgated pursuant thereto, a state program, or any federal or state law, rule, or regulation pertaining to air or water environmental protection. If this compliance determination initially is made prior to the determination that the application is complete and accurate, the Permit Board shall reconsider the compliance review prior to issuing, modifying, or renewing a permit. The reconsideration shall be based on any new information submitted pursuant to §2307(d).

(c) In the absence of a failure-to-abate cessation order, the Permit Board may presume that a

notice of violation issued pursuant to §53-9-55 and §6503 or under a federal or state program is being corrected to the satisfaction of the agency with jurisdiction over the violation where the abatement period for such notice of violation has not yet expired and where, as part of the violation information provided pursuant to §2307, the applicant has provided certification that such violation is in the process of being so corrected. Such presumption shall not apply where evidence to the contrary is set forth in the permit application, or where the notice of violation is issued for nonpayment of abandoned mine land reclamation fees or civil penalties.

(d) If a current violation exists, the Permit Board shall require the applicant or person who owns or controls the applicant, before the issuance of the permit, to either:

(1) submit to the Permit Board proof that the current violation has been or is in the process of being corrected to the satisfaction of the agency that has jurisdiction over the violation; or

(2) establish for the Permit Board that the applicant, or any person owned or controlled by either the applicant or any person who owns or controls the applicant, has filed and is presently pursuing, in good faith, a direct administrative or judicial appeal to contest the validity of the current violation. If the initial judicial review authority affirms the violation, then the applicant shall within 30 days of the judicial action submit the proof required under §3113(b) and (c).

(e) Any permit that is issued on the basis of a presumption supported by certification under the Act and §2307 that a violation is in the process of being corrected, on the basis of proof submitted under §3113(c) that a violation is in the process of being corrected, or pending the outcome of an appeal described in §3113(d)(2), shall be conditionally issued.

(f) After an initial determination by the Permit Board to deny a permit, modification, or renewal application because the applicant, anyone who owns or controls the applicant, or the operator specified in the application, controls or has controlled surface coal mining and reclamation operations with a demonstrated pattern of willful violation of the act of such nature and duration, and with such resulting irreparable damage to the environment that indicates an intent not to comply with the provisions of the act, the applicant or operator shall be afforded an opportunity for a formal hearing on the determination. Such hearing shall be conducted pursuant to §53-9-77(1) of the act and §3301.

§3114. Valid Existing Rights Review At Time Of Permit Application Review

(a) Upon receipt of an administratively complete application for a permit for a surface coal mining operation, or an administratively complete application for revision or modification of the boundaries of a surface coal mining operation permit, the Department or Permit Board must review the application to determine whether the proposed surface coal mining operation would be located on any lands protected under 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations .

(b) The Permit Board must reject any portion of the application that would locate surface coal mining operations on land protected under 30 C.F.R.. § 761.11, 30 U.S.C. 1272(e), Miss. Code Ann. § 53-9-71, or § 1105 of these regulations unless:

(1) The site qualifies for the exception for existing operations under § 1105(h);

(2) A person has valid existing rights for the land, as determined under § 1106;

(3) The applicant obtains a waiver or exception from the prohibitions of § 1105 in accordance with 30 C.F.R. § 761.13 or § 1107(d) or § 1107(e) of these regulations; or

(4) For lands protected by § 1105(c), both the Permit Board and the agency with jurisdiction over the park or place jointly approve the proposed operation in accordance with paragraph (d) of this section.

(c) Location verification. If the Department or Permit Board has difficulty determining whether an application includes land within an area specified in § 1105(a) or within the specified distance from a structure or feature listed in § 1105(f) or (g), the Department or Permit Board must request that the Federal, State, or local governmental agency with jurisdiction over the protected land, structure, or feature verify the location.

(1) The request for location verification must:

(i) Include relevant portions of the permit application.

(ii) Provide the agency with 30 days after receipt to respond, with a notice that another 30 days is available upon request.

(iii) Specify that the Permit Board will not necessarily consider a response received after the comment period provided under paragraph (c)(1)(ii) of this section.

(2) If the agency does not respond in a timely manner, the Permit Board may make the necessary determination based on available information.

(d) Procedures for joint approval of surface coal mining operations that will adversely affect publicly owned parks or historic places.

(1) If the Department or Permit Board determines that the proposed surface coal mining operation will adversely affect any publicly owned park or any place included in the National Register of Historic Places, the Department or Permit Board must request that the Federal, State, or local agency with jurisdiction over the park or place either approve or object to the proposed operation. The request must:

(i) Include a copy of applicable parts of the permit application.

(ii) Provide the agency with 30 days after receipt to respond, with a notice that another 30 days is available upon request.

(iii) State that failure to interpose an objection within the time specified under paragraph (d)(1)(ii) of this section will constitute approval of the proposed operation.

(2) The Permit Board may not issue a permit for a proposed operation subject to paragraph (d)(1) of this section unless all affected agencies jointly approve.

(3) Paragraphs (d)(1) and (d)(2) of this section do not apply to:

(i) Lands for which a person has valid existing rights, as determined under 30 C.F.R.. § 761.16 or § 1106 of these regulations.

(ii) Lands within the scope of the exception for existing operations in § 1105(h).

§3115. Criteria for Permit Approval or Denial

No permit, modification, or reissuance shall be approved, unless the application affirmatively demonstrates and the Permit Board finds, in writing, on the basis of information set forth in the application, or from information otherwise available, which is documented in the approval and made available to the applicant, that:

(a) the permit application is accurate and complete and that all requirements of the act and these regulations have been complied with;

(b) the applicant has demonstrated that surface coal mining and reclamation operations, as required by the act and these regulations, can be accomplished under the mining and reclamation operations plan contained in the application;

(c) the assessment of the probable cumulative impacts of all anticipated coal mining in the cumulative impact area on the hydrologic balance, as described in §53-9-25 and §2525, has been made by the Department and the operations proposed under the application have been designed to prevent damage to the hydrologic balance outside the proposed permit area;

(d) the proposed permit area is:

(1) not included within an area designated unsuitable for surface coal mining operations under §53-9-71, Chapter 11, Chapter 13, or Chapter 15; or

(2) Not within an area that is the subject of a petition to designate lands unsuitable for mining, unless the applicant demonstrates that, before January 4, 1977, he or she made substantial legal and financial commitments in relation to the operation for which he or she is applying for a permit; or that

is the subject of such a petition but for which consideration has been deferred by the Commission pursuant to §1507(a)(7).

(3) not on any lands subject to the prohibitions or limitations of §1105(a),(b),(f) or (g); or

(4) not within 100 feet of the outside right-of-way line of any public road, except as provided for in §1107(d); or

(5) not within 300 feet from any occupied dwelling, except as provided for in the act and §1107(e);

(e) the proposed operations will not adversely affect any publicly-owned parks or places included on the National Register of Historic Places, except as provided for in §1105(c) or (d).

(f) for operations involving the surface mining of coal where the private mineral estate to be mined has been severed from the private surface estate, the applicant has submitted to the Department the documentation required under §53-9-33 and §2309(b);

(1) The written consent of the surface owners to the extraction of coal by surface mining methods; or

(2) A conveyance that expressly grants or reserves the right to extract the coal by surface mining methods.

(g) the applicant has submitted proof that all reclamation fees from previous and existing operations as required by 30 CFR subchapter R have been paid;

(h) the applicant will submit the performance bond or other collateral required under §53-9-31 and Subpart IV prior to the issuance of the permit;

(I) the applicant has satisfied the applicable requirements of Chapter 29;

(j) the applicant has, if applicable, satisfied the requirements for approval of a long-term, intensive agricultural postmining land use, in accordance with the requirements of §53-9-45 and §53-9-47 and 53109.

(k) the Permit Board has found that the activities would not affect the continued existence of endangered or threatened species or result in the destruction or adverse modification of their critical habitats as determined under the Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.);

(l) the Permit Board has taken into account the effect of the proposed permitting action

on properties listed on and eligible for listing on the National Register of Historic Places. This finding may be supported in part by inclusion of appropriate permit conditions or changes in the operation plan protecting historic resources, or a documented decision that the Permit Board has determined that no additional protection measures are necessary.

(m) Final compliance review. After an application is approved, but before the permit is issued, the Department shall reconsider its decision to approve the application, based on the compliance review required by §3113 in light of any new information submitted under §2305 (I) and §2307 (d).

§3117. Criteria for Permit Approval or Denial: Existing Structures

No permit, modification, or renewal of a permit shall be issued unless the applicant has demonstrated that any existing structure will comply with §303(c)(1) and the applicable performance standards of Subpart V.

§3119. Permit Approval or Denial Actions

(a) The Permit Board pursuant to the act and these regulations, shall approve, modify, reissue or deny all applications for permits under the Act and these regulations on the basis of:

(1) complete applications for permits, modifications or reissuance and revisions thereof;

(2) public participation as provided for in the act and this Subpart;

(3) compliance with any applicable provisions of the act and Chapter 29;

(4) processing and review of applications as required by the act and this Chapter.

(b) Upon the basis of a complete application for permit or a complete application for modification or reissuance of a permit, including public notification and an opportunity for public hearing as required by §53-9-37, the Permit Board shall issue, deny or modify the permit within the time required under § 53-9-37 and shall notify the applicant in writing of its action within the time required under § 53-9-39. The Permit Board shall take action as required under this section, within the following times:

(1) Except as provided for in §3119(b)(1)(A) or (B), a complete application submitted to the Department shall be processed by the Department, so that an application is approved or denied by the Permit Board within the following times:

(A) if a public hearing has been held under the act and §3109, the Permit Board shall act upon a complete permit application within sixty (60) days after the date of the public hearing. This time frame may be extended if agreed in writing by the Department, the applicant, and the interested party or parties, if any, that requested the public hearing.

(B) if no public hearing has been held under the act and §3109, the Permit Board shall act within sixty (60) days after the last publication of the notice described in § 53-9-37 (1). The time frames may be extended if agreed in writing by the Department and the applicant. Further the Permit Board may allow additional time for processing, taking into account:

(i) the time needed for proper investigation of the proposed permit and adjacent areas;

(ii) the complexity of the application; and

(iii) whether written objections to or comments on the complete application have been filed with the Permit Board.

(2) Notwithstanding any of the foregoing provisions of this Section, no time limit under the act or this Section requiring the Permit Board to act shall be considered expired from the time the Permit Board requests further information under § 3113(d) until the final decision of the Permit Board.

(c) If the application is approved, the permit shall be issued upon submittal of a performance bond in accordance with Chapters 39, 41, and 43. If the application is disapproved, specific reasons therefore shall be set forth in the notification required by §3119(d).

(d) Within fourteen (14) days after issuing or denying a permit or granting or denying a modification to an existing permit, as recorded in the minutes of the Permit Board, the Permit Board shall notify by mail to the last-known address, the following:

(1) the permit applicant;

(2) the mayor of each municipality and the president of the board of supervisors of each county in which the permit area is located;

(3) persons who submitted written comments concerning the application in the time, manner and form as provided by regulation, if those persons provided the Permit Board with a complete address; and

(4) persons who requested the public hearing, if a public hearing was held, if those persons provided the Permit Board with a complete address; and

(5) the local OSMRE office.

(e) Permit application approval shall apply to those lands that are specifically designated as the permit area on the maps submitted with the application and for which the application is complete and accurate. Any valid permit issued in accordance with §3119(a) shall carry with

it a right of successive renewal, within the approved boundaries of the existing permit, upon expiration of the term of the permit, in accordance with Chapter 35.

§3121. Permit Terms

(a) Each permit shall be issued for a fixed term not to exceed five years, unless the requirements of §3121(c) are met.

(b) Each application shall state the anticipated or actual starting and termination date of each phase of the surface coal mining and reclamation operation and the anticipated number of acres of land to be affected during each phase of mining over the life of the mine.

(c) If the applicant requires an initial permit term in excess of five years in order to obtain necessary financing for equipment and the opening of the operation, the longer fixed permit term may be granted by the Permit Board, if:

(1) the application is complete and accurate for the specified longer term;

(2) the applicant shows that a specified longer term is reasonably needed to allow the applicant to obtain necessary financing of equipment and the opening of the operation, and this need is confirmed, in writing, by the applicant's proposed source for the financing.

(d) Termination, Extension

(1) A permit shall terminate if the permittee has not begun the surface coal mining and reclamation operation covered by the permit within three years of the issuance of the permit.

(2) The Permit Board may grant reasonable extensions of time for commencement of these operations, upon receipt of a written statement showing that such extensions of time are necessary, if litigation precludes the commencement or threatens substantial economic loss to the permittee, or there are conditions beyond the control and without the fault or negligence of the permittee.

(3) With respect to coal to be mined for use in a synthetic fuel facility or specified major electric generating facility, the permittee shall be deemed to have commenced surface mining operations at the time that the construction of the synthetic fuel or generating facility is initiated.

(4) Extensions of time granted by the Permit Board under this Subsection shall be treated as modifications to the permit, triggering the public notice requirements in §53-9-37 and §3103.

(e) Permits may be suspended, revoked or modified by the Permit Board, in accordance with the act and §§2901, 2905, and 3503.

§3123. Conditions of Permits: General and Right of Entry

Each permit issued by the Permit Board shall ensure that:

(a) except to the extent that the Permit Board otherwise directs in the permit that specific actions be taken, the permittee shall conduct all surface coal mining and reclamation operations as described in the complete application;

(b) the permittee shall allow the authorized representatives of the Secretary of Interior, including, but not limited to, inspectors and fee compliance officers, and the Department, without advance notice or a search warrant, upon presentation of appropriate credentials, and without delay, to have the rights of entry provided for in §53-9-51 of the act, and §6305, and be accompanied by private persons for the purpose of conducting an inspection in accordance with the act and Chapter 63, when the inspection is in response to an alleged violation reported to the Department or OSM by the private person;

(c) the permittee shall conduct surface coal mining and reclamation operations only on those lands specifically designated on the maps submitted under the act and Chapters 25-27 and approved for the term of the permit and which are subject to the performance bond or other collateral in effect pursuant to the act and Subpart IV;

(d) the operator shall pay all reclamation fees required by the act and Subchapter R of 30 CFR Chapter VII for coal produced under the permit for sale, transfer or use, in the manner required by that Subchapter;

(e) the Permit Board shall require in the permit that adequate bond coverage be in effect at all times;

(f) within 30 days after a cessation order is issued under §53-9-69, 30 CFR 843.11 or §6501 for operations conducted under the permit, except where a stay of the cessation order is granted and remains in effect, the permittee shall either submit to the Department the following information, current to the date the cessation order was issued, or notify the Department in writing that there has been no change since the immediately preceding submittal of such information:

(1) any new information needed to correct or update the information previously submitted to the Department by the permittee under the act and §2305(c); or

(2) if not previously submitted, the information required from a permit applicant by the act and §2305(c).

(g) The permittee shall comply with the terms and conditions of the permit, all applicable performance standards of the Act, the Federal Act, and the requirements of these regulations.

(h) As applicable, the permittee shall comply with the act and §303.B and Subpart V for compliance, modification, or abandonment of existing structures.

§3125. Conditions of Permits: Environment, Public Health and Safety

Each permit issued by the Permit Board shall ensure and contain specific conditions requiring that the:

(a) permittee shall operate in accordance with the general environmental protection standards promulgated under §53-9-45. Permittee shall take all possible steps to minimize any adverse impact to the environment or public health and safety resulting from noncompliance with any term or condition of the permit, including, but not limited to:

(1) any accelerated or additional monitoring necessary to determine the nature and extent of noncompliance and the results of the noncompliance;

(2) immediate implementation of measures necessary to comply;

(3) warning, as soon as possible after learning of such noncompliance, any person whose health and safety is in imminent danger due to the noncompliance;

§3127. Improvidently Issued Permits: General Procedures

(a) Permit Review. When the Permit Board has reason to believe that it improvidently issued a surface coal mining and reclamation permit, it shall review the circumstances under which the permit was issued, using the criteria in the act and §3127(b). Where the Permit Board finds that the permit was improvidently issued, it shall comply with the act and §3127(c).

(b) Review Criteria. The Permit Board shall find that a surface coal mining and reclamation permit was improvidently issued if:

(1) under the violations review criteria of the regulatory program at the time the permit was issued:

(A) the Permit Board should not have issued the permit because of an unabated violation or a delinquent penalty or fee; or

(B) the permit was issued on the presumption that a notice of violation was in the process of being corrected to the satisfaction of the agency with jurisdiction over the violation, but a cessation order subsequently was issued; and

(2) the violation, penalty or fee:

(A) remains unabated or delinquent; and

(B) is not the subject of a good faith appeal, or of an abatement plan or payment schedule with which the permittee or other person responsible is complying to the satisfaction of the responsible agency; and

(C) the permittee or any person owned or controlled by the permittee continues to be responsible for the violation, penalty or fee.

(3) The provisions of §3137 shall be applicable when the Permit Board determines:

(A) whether a violation, penalty, or fee existed at the time that it was cited, remains unabated or delinquent, has been corrected, is in the process of being corrected, or is the subject of a good faith appeal, and

(B) whether the permittee or any person owned or controlled by the permittee continues to be responsible for the violation, penalty or fee.

(c) Remedial Measures. When the Permit Board, under §53-9-69 of the act and §3127(b), finds that because of an unabated violation or a delinquent penalty or fee a permit was improvidently issued, it shall use one or more of the following remedial measures:

(1) implement through the Department and, if necessary, with the cooperation of the Commission and with the cooperation of the permittee or other person responsible, a plan for abatement of the violation or a schedule for payment of the penalty or fee;

(2) impose on the permit a condition requiring that in a reasonable period of time the permittee or other person responsible abate the violation or pay the penalty or fee;

(3) suspend the permit by suspending its effective date or current effectiveness until the violation is abated or the penalty or fee is paid or revoke the permit.

(d) If the Permit Board decides to modify a permit by suspending its effective date or current effectiveness, it shall afford at least 30 days' written notice to the permittee. If the Permit Board decides to revoke the permit, it shall issue a notice in accordance with §3129. In either case, the permittee shall be given the opportunity to request a formal hearing under the act and §3301. The Permit Board's decision shall remain in effect during the pendency of the appeal, unless temporary relief is granted in accordance with the act and §3301(a)(2).

(e) If the Permit Board decides either to modify a permit by suspending its effective date or current effectiveness or to revoke a permit as improvidently issued, and the permittee requests a formal hearing regarding the Permit Board action, the Department shall have the burden of going forward to present a prima facie case of the validity of the notice of suspension or the notice of proposed suspension and recission. The permittee shall have the ultimate burden of persuasion by a preponderance of the evidence that the notice is invalid.

§3129. Improvidently Issued Permits: Revocation Procedures

(a) No less than thirty (30) days prior to the Department's recommendation to the Permit Board that a permit should be revoked, the Department shall notify the permittee in writing of its intention to recommend revocation and of the Permit Board's findings under §3127. If requested by the permittee, the Department shall meet with the permittee prior to making its recommendation to the Permit Board in order to allow the permittee an opportunity to demonstrate what reasons, if any, exist for not recommending the permit be revoked. These reasons include, but are not limited to those set forth in §3129(b).

(b) When the Permit Board, under the act and §3127(c)(3), revokes an improvidently issued permit, the permittee may request a formal hearing pursuant to §53-9-77. After a specified period of time, not to exceed 90 days the permit automatically will become suspended, and not to exceed 90 days thereafter rescinded, unless at the formal hearing, the permittee submits proof, and the Permit Board finds:

(1) That the finding of the Permit Board under §3127(b) was erroneous;

(2) That the permittee or other person responsible has abated the violation on which the finding was based, or paid the penalty or fee, to the satisfaction of the responsible agency;

(3) That the violation, penalty or fee is the subject of a good faith appeal, or of an abatement plan or payment schedule with which the permittee or other person responsible is complying to the satisfaction of the responsible agency; or

(4) That the permittee and all persons owned or controlled by the permittee are no longer responsible for the violation, penalty or fee.

(c) Cessation of Operations. After permit suspension or revocation, the permittee shall cease all surface coal mining and reclamation operations under the permit, except for violation abatement and for reclamation and other environmental protection measures as required by the Permit Board.

§3131 Verification of ownership or control application information

(a) In accordance with §3115, prior to the issuance of a permit, the Department shall review the information in the application provided pursuant to §2305 to determine that such information, including the identification of the operator and all owners and controllers of the operator, is complete. In making such determination, the Department shall compare the information provided in the application with information from other reasonably available sources, including-

(1) manual data sources within Mississippi, including:

(A) the Department's inspection and enforcement records and

(B) State corporation Commission or tax records, to the extent they contain information concerning ownership or control links; and

(2) automated data sources, including:

(A) the Department's own computer systems and

(B) the Applicant/Violator System.

(b) If it appears from the information provided in the application pursuant to §2305(c) and (d) that none of the persons identified in the application has had any previous mining experience, the Department shall inquire of the applicant and investigate whether any person other than those identified in the application will own or control the operation (as either an operator or other owner or controller).

(c) If, as a result of the review conducted under §3131(a) and (b), the Department identifies any potential omission, inaccuracy, or inconsistency in the ownership or control information provided in the application, it shall, prior to making a final determination with regard to the application, contact the applicant and require that the matter be resolved through submission of

(1) an amendment to the application or

(2) a satisfactory explanation which includes credible information sufficient to demonstrate that no actual omission, inaccuracy, or inconsistency exists.

(d) Upon completion of the review conducted under this section, the Department shall promptly enter into or update all ownership or control information on AVS.

§3133 Review of ownership or control and violation information.

(a) Following the verification of ownership or control information pursuant to §3131, the Department shall review all reasonably available information concerning violation notices and ownership or control links involving the applicant to determine whether the application can be approved under the act and §3113. Such information shall include-

(1) with respect to ownership or control links involving the applicant, all information obtained under §§3131 and 2305; and

(2) with respect to violation notices, all information obtained under§2307, information obtained from OSM, including information shown in the AVS, and information from the Department's own records concerning violation notices.

(b) If the review conducted under §3133(a) of this section discloses any ownership or control link between the applicant and any person cited in a violation notice-

(1) the Department shall so notify the applicant and shall refer the applicant to the agency with jurisdiction over such violation notice; and

(2) the Permit Board shall not approve the application unless and until it determines, in accordance with the provisions of the act and §§3135 and 3137,

(A) that all ownership or control links between the applicant and any person cited in a violation notice are erroneous or have been rebutted, or

(B) that the violation has been corrected, is in the process of being corrected, or is the subject of a good faith appeal, within the meaning of §3113(b)(2).

(c) Following the Permit Board's decision on the application (including unconditional issuance, conditional issuance, or denial of the permit) or following the applicant's withdrawal of the application, the Permit Board shall promptly enter all relevant information related to such decision or withdrawal into AVS.

§3135 Procedures for challenging ownership or control links shown in AVS.

(a)

(1) Any applicant or other person shown in AVS in an ownership or control link to any person may challenge such link in accordance with the provisions of 30 CFR 773.24(b) through (d) and 773.25, unless such applicant or other person is bound by a prior administrative or judicial determination concerning the link.

(2) Any applicant or other person shown in AVS in an ownership or control link to any person cited in a Federal violation notice may challenge the status of the violation covered by such notice in accordance with the provisions of 30 CFR 773.24(b) through (d) and 773.25, unless such applicant or other person is bound by a prior administrative or judicial determination concerning the status of the violation.

(3) Any applicant or other person shown in AVS in an ownership or control link to any person cited in a State violation notice may challenge the status of the violation covered by such notice in accordance with the act and §§3135(b)-(d) and 3137, unless such applicant or other person is bound by a prior administrative or judicial determination concerning the status of the violation.

(b) Any applicant or other person who wishes to challenge the status of a State violation, and who is eligible to do so under the provisions of the act and §3135(a)(3), shall submit a written explanation of the basis for the challenge, along with any relevant evidentiary materials and supporting documents, to the Department.

(c) The Permit Board shall review any information submitted under the act and §3135(b) and shall make a written decision whether or not the violation covered by the notice remains outstanding, has been corrected, is in the process of being corrected, or is the subject of a

good faith appeal within the meaning of the act and §3113(b)(2).

(d)(1) If, as a result of the decision reached under the act and §3135(c), the Permit Board or Department determines that the violation covered by the notice has been corrected, is in the process of being corrected, or is the subject of a good faith appeal, the Department shall so notify the applicant or other person and, if an application is pending, OSM, and shall correct the information in AVS.

(2) If, as a result of the decision reached under §3135(c), the Permit Board or Department determines that the violation covered by the notice remains outstanding, the Department shall so notify the applicant or other person and, if an application is pending, OSM, and shall update the information in AVS, if necessary.

(A) The Permit Board shall serve a copy of the decision on the applicant or other person by certified mail, or by any means consistent with the rules governing service of a summons and complaint under Rule 4 of the Mississippi Rules of Civil Procedure. Service shall be complete upon tender of the notice or mailing of the notice and shall not be deemed incomplete because of a refusal to accept.

(B) The applicant or other person may appeal the Permit Board's decision within 30 days of the decision in accordance with §53-9-77 and §3301. The Permit Board's decision shall remain in effect during the pendency of the appeal, unless temporary relief is granted in accordance with the act and §3301(a)(2).

§3137 Standards for challenging ownership or control links and the status of violations.

(a) The provisions of this section shall apply whenever a person has and exercises a right, under the provisions of the act, and §§3127, 3129, 3133, or 3135 or under the provisions of Chapter 33, to challenge

(1) an ownership or control link to any person and/or

(2) the status of any violation covered by a notice.

(b) Agencies responsible.

(1) Except as provided in §3137(b)(3)-

(A) The Permit Board shall have responsibility for making decisions with respect to ownership or control relationships of the application.

(B) The Permit Board shall have responsibility for making decisions with respect to the ownership or control relationships of the permit.

(C) The regulatory authority for the State that issued a State violation notice shall have responsibility for making decisions with respect to the ownership or

control relationships of the violation.

(D) The regulatory agency that issued a violation notice, whether State or Federal, shall have responsibility for making decisions concerning the status of the violation covered by such notice, i.e., whether the violation remains outstanding, has been corrected, is in the process of being corrected, or is the subject of a good faith appeal, within the meaning of the act and §3113.

(2) OSM shall have responsibility for making decisions with respect to the ownership or control relationships of a Federal violation notice.

(3)

(a) With respect to information shown on AVS, the responsibilities referred to in §3137(b)(1) shall be subject to the plenary authority of OSM to review any State regulatory authority decision regarding an ownership or control link.

(b) With respect to ownership or control information which has not been entered into AVS by a State and with respect to information shown on AVS relating to the status of a violation, State regulatory authorities' determinations are subject to OSM's program authority oversight under 30 CFR Parts 733, 842, and 843.

(c) Evidentiary standards.

(1) In any formal hearing regarding review of an ownership or control link or of the status of a violation covered by a violation notice, the Department shall make a prima facie determination or showing that such link exists, existed during the relevant period, and/or that the violation covered by such notice remains outstanding. If such a prima facie showing is made as determined by the Permit Board, the person challenging such link or the status of the violation shall have the burden of proving by a preponderance of the evidence, with respect to any relevant time period-

(A) That the facts relied upon by the Department to establish:

(i) ownership or control under the definition of "owned or controlled" or "owns or controls" in the act and §105 or

(ii) a presumption of ownership or control under the definition of "owned or controlled" or "owns or controls" in the act and §105, do not or did not exist;

(B) That a person subject to a presumption of ownership or control under the definition of "owned or controlled" or "owns or controls" in the act and §105, does not or did not in fact have the authority directly or indirectly to determine the manner in which surface coal mining operations are or were conducted, or

(C) That the violation covered by the violation notice did not exist, has been corrected, is in the process of being corrected, or is the subject of a good faith appeal within the meaning of the act and §3113(b)(2); provided that the existence of the violation at the time it was cited may not be challenged under the provisions of the act and §3135:

(i) by a permittee, unless such challenge is made by the permittee within the context of the act and §§3127 and 3129;

(ii) by any person who had a prior opportunity to challenge the violation notice and who failed to do so in a timely manner; or

(iii) by any person who is bound by a prior administrative or judicial determination concerning the existence of the violation.

(2) In meeting the burden of proof set forth in the act and §3137(c)(1), the person challenging the ownership or control link or the status of the violation shall present probative, reliable, and substantial evidence and any supporting explanatory materials, which may include-

(A) Before the Permit Board-

(i) affidavits setting forth specific facts concerning the scope of responsibility of the various owners or controllers of an applicant, permittee, or any person cited in a violation notice; the duties actually performed by such owners or controllers; the beginning and ending dates of such owners' or controllers' affiliation with the applicant, permittee, or person cited in a violation notice; and the nature and details of any transaction creating or severing an ownership or control link; or specific facts concerning the status of the violation;

(ii) if certified, copies of corporate minutes, stock ledgers, contracts, purchase and sale agreements, leases, correspondence, or other relevant company records;

(iii) if certified, copies of documents filed with or issued by any State, Municipal, or Federal governmental agency.

(iv) an opinion of counsel, when supported by evidentiary materials; a statement by counsel that he or she is qualified to render the opinion; and a statement that counsel has personally and diligently investigated the facts of the matter or, where counsel has not so investigated the facts, a statement that such opinion is based upon information which has been supplied to counsel and which is assumed to be true.

(B) A final decision following formal hearing may be appealed pursuant to §53-

9-77.

(d) Following any determination by the Permit Board, or any decision by a judicial tribunal reviewing such determination, the Department shall review the information in AVS to determine if it is consistent with the determination or decision. If it is not, the Department shall promptly inform OSM and request that the AVS information be revised to reflect the determination or decision.

Chapter 33. Administrative and Judicial Review of Permit Decisions

§3301. Formal Hearing

(a) Within forty-five (45) days after the action of the Permit Board, as recorded in the minutes of the Permit Board, the applicant or any other interested party may request a formal hearing concerning the action. The Permit Board shall commence the hearing within 60 days after receipt of the first request for a formal hearing. This hearing shall be of record, adjudicatory in nature, and no person who presided at public hearing under §53-9-37 of the act and §3109 shall either preside at the hearing, or participate in the decision following the hearing, or in any administrative appeal therefrom. The Permit Board shall have the burden of going forward to present a prima facie case of the validity of the decision. The person filing the request for review shall have the ultimate burden of persuasion by a preponderance of the evidence that the decision is in error.

(b) Any party may file a petition for temporary relief from the Permit Board's action in conjunction with the filing of the request for a formal hearing or at any time before a final decision is issued by the Permit Board after a formal hearing.

(1) The petition for temporary relief shall be filed with the Executive Director. The petition for temporary relief shall include:

(A) A statement of the specific relief requested;

(B) A detailed statement of why temporary relief should be granted, including:

(i) A showing that there is a substantial likelihood that the petitioner will prevail on the merits, and

(ii) A showing that the relief sought will not adversely affect the public health or safety or cause significant, imminent environmental harm to land, air or water resources; and

(C) A statement whether the petitioner requests a formal hearing regarding the petition for temporary relief.

(2) Any party may file a response to the petition no later than 5 days after it was served and may request a formal hearing on the petition for temporary relief even if the petitioner has not done so.

(3) The Permit Board may hold a formal hearing on any issue raised by the petition within 10 days of the filing of responses to the petition, and shall do so if a hearing is requested by any party. The Permit Board shall issue an order or decision granting or denying the petition for temporary relief within 5 days of the date of a hearing on the petition or, if no hearing is held, of service of the responses to the petition on all parties.

(4) The Permit Board may grant temporary relief only if:

(A) All parties to the proceeding have been notified of the petition and have had an opportunity to respond and a hearing has been held if requested;

(B) The petitioner has demonstrated a substantial likelihood of prevailing on the merits;

(C) Temporary relief will not adversely affect public health or safety or cause significant, imminent harm to land, air or water resources, and

(D) The relief sought is not the issuance of a permit where a permit has been denied, in whole or in part, by the Permit Board, except that continuation under an existing permit may be allowed where the operation has a valid permit issued under the Act.

(5) Any party may seek judicial review of the Permit Board's decision regarding temporary relief as allowed by §53-9-77 for final decisions of the Permit Board.

(c) For the purpose of a formal hearing, the Permit Board may administer oaths and affirmations, subpoena witnesses and written or printed materials, compel attendance of witnesses or production of those materials, and take evidence including, but not limited to, site inspections of the land to be affected and other surface coal mining and reclamation operations carried on by the applicant in the general vicinity of the proposed operations.

(d) A verbatim record of each formal hearing required by this Section shall be made, and a transcript made available on the request of any party pursuant to the Mississippi Public Records Act.

(e) Ex parte contacts between interested parties or their representatives, who are not employees of the Department, and Permit Board members authorized to vote on the issue(s) of the formal hearing and/or an appointed hearing officer shall be prohibited.

(f) Except as provided in 3301(b)(3), at the conclusion of the formal hearing or within thirty (30) days after the formal hearing, the Permit Board shall enter in its minutes a final decision

affirming, modifying, or reversing its prior decision to issue, modify, revoke or deny the permit. The Permit Board shall mail within seven (7) days after its final decision as recorded in the minutes of the Permit Board, notice of that decision to the applicant and all persons who participated as a party in the formal hearing. The deadlines in this subsection may be extended by written agreement of the parties.

§3303. Judicial Review

(a) Any applicant or any person who participated as a party in the formal hearing and who is aggrieved by the final action of the Permit Board may appeal that action in accordance with §53-9-77.

Chapter 35. Permit Reviews and Renewals, and Transfer, Sale and Assignment of Rights Granted Under Permits

§3501. Responsibilities

The Department shall:

(a) recommend the modification of permits, or the denial of applications therefor, and shall administratively process revisions to permits prior to changes in surface coal mining and reclamation operations;

(b) ensure that all permits are regularly reviewed to determine that surface coal mining and reclamation operations under these permits are conducted in compliance with the act and these regulations;

(c) effectively review applications to renew existing permits, in a timely manner, to ensure that surface coal mining and reclamation operations continue, if they comply with the act and these regulations;

(d) ensure that no person conducts surface coal mining and reclamation operations through the transfer, sale or assignment of rights granted under permits without the prior approval of the Permit Board.

§3503. Department Review of Outstanding Permits

(a) The Department shall review each permit issued and outstanding under an approved regulatory program during the term of the permit. This review shall occur not later than the middle of the permit term and as required by §§2901 and 2905. For permits of longer than five year terms, a review of the permit shall be no less frequent than the permit midterm or every five years, whichever is more frequent.

(b) After the Department's review, the Department may recommend to the Permit Board, reasonable modifications of the permit provisions or revocation of a permit to ensure compliance with the act and these regulations.

§3505. Permit Modifications and Revisions

(a) Applications for permit modifications, as defined in these regulations, shall be made and reviewed in accordance with Chapters 31 and 35 of these regulations. Public participation and review shall be as stated in Chapter 31 of these regulations.

(b) An application for a revision of a permit, as defined in these regulations, shall be submitted on forms or in a form as determined by the Department. The application shall include all information requested by the Department, and shall not be approved unless the Executive Director finds the reclamation as required by the act these regulations can be accomplished under the revised reclamation plan and revision complies with all requirements of the act and these regulations. The revision shall be granted or denied by the executive director within ten (10) days of receipt by the Department of a complete application for the revision. A decision by the executive director to grant or deny a revision of a permit shall be subject to formal hearing and appeal as would an initial decision of the Permit Board under §49-17-29.

(c) Any extensions to the area covered by the permit, except for incidental boundary revisions, must be made by application for a new permit and shall not be approved under §53-9-35 of the act nor this Chapter. A revision shall not be considered a modification.

(d) In the event that an approved permit is modified in accordance with this Section, the Permit Board shall review the bond for adequacy and, if necessary, shall require adjustment of the bond to conform to the permit as modified.

§3507. Permit Renewals: General Requirements

(a) Any valid, existing permit issued pursuant to a regulatory program shall carry with it the right of successive renewal upon expiration of the term of the permit, in accordance with §53-9-23 of the act and §§3507-3513. Successive renewal shall be available only for those areas which were specifically approved by the Permit Board on the application for the existing permit as within the boundaries of the permit.

(b) Permit renewal shall not be available for conducting surface coal mining and reclamation operations on the lands beyond the boundaries of the permit area approved under the existing permit. If an application for reissuance of a permit includes a proposal to extend the surface coal mining operation beyond the boundaries authorized in the existing permit, the portion of the application for reissuance of the permit which addresses any new land areas shall be subject to the requirements applicable to new applications under the act and these regulations.

(c) Application for permit reissuance shall be filed at least one hundred and eighty (180) days before the expiration of the permit. If an application for reissuance is timely filed, the operator may continue surface coal mining operations under the existing permit until the Permit Board takes action on the reissuance application.

§3509. Permit Renewals: Completed Applications

(a) Contents. Complete applications for renewals of a permit shall be made within the time prescribed by the act, §§1905 and 3507(c). Renewal applications shall be in a form and with contents required by the Department and in accordance with the act and §3509(b)(2) including, at a minimum, the following:

(1) a statement of the name and address of the permittee, the term of the renewal requested, the permit number, and a description of any changes to the matters set forth in the original application for a permit or prior renewal;

(2) a copy of the newspaper notice and proof of publication of same under §53-9-37 of the act and §3103(a);

(3) sufficient evidence that the performance bond or any additional collateral the Permit Board may require under §53-9-31, which is in effect for the operation in question, will continue in full force and effect for any period of reissuance requested in the application; and

(4) evidence that a liability insurance policy or adequate self-insurance under §4309 will be provided by the applicant for the proposed period of renewal.

(b) Processing and Review

(1) complete applications for renewal shall be subject to the requirements of public notification and participation contained in §53-9-37 and §53-9-39 of the act and §§3103-3109;

(2) before issuing the permit renewal, the Permit Board shall require any additional performance bond needed by the permittee to comply with the requirements of §53-9-31 of the act and §3513(a)(5) to be filed with the Department.

(3) If an application for renewal includes any proposed modifications to the permit, such modifications shall be identified and subject to the requirements of §3505.

(4) the bond value of collateral may be evaluated at any time, but it shall be evaluated as part of permit renewal and, if necessary, the performance bond amount increased or decreased. In no case shall the bond value of collateral exceed the market value of that collateral.

§3511. Permit Renewals: Terms

Any permit renewal shall be for a term not to exceed five (5) years.

§3513. Permit Renewals: Approval or Denial

(a) The permit shall be reissued after meeting the public notice requirements of §53-9-37, unless it is established by the opponents to reissuance or the Department, and written findings are made by the Permit Board stating that:

(1) the permittee is not satisfactorily meeting the terms and conditions of the existing permit;

(2) the present surface coal mining and reclamation operation is not in compliance with the environmental protection standards under the act and these regulations applicable to the existing permit;

(3) the requested reissuance substantially jeopardizes the operator's continuing responsibility to comply with the act and these regulations on existing permit areas;

(4) the operator has not provided evidence of having liability insurance or self-insurance as required in under §53-9-25(2)(b) and §4309;

(5) the operator has not provided evidence that the performance bond, or any additional bond the Permit Board may require under §53-9-31 of the act and Subpart IV, which is in effect for the operation in question, will continue in full force and effect for any period of reissuance requested in the application; or

(6) the operator has failed to provide any additional revised or updated information required by the Department or Permit Board.

(b) In determining whether to approve or deny a renewal, the burden of proving that the permit should not be reissued shall be on the opponents of reissuance or the Department. If the Department determines that a condition exists which will prevent the Department from recommending permit reissuance to the Permit Board, the Department shall immediately provide the applicant with notice of such condition and provide the applicant an opportunity to initiate action to correct the condition. A violation of the act, these regulations, or a permit condition shall not be cause for denial of a permit renewal if the Permit Board determines that the violation:

(1) has been corrected; or

(2) is in the process of being corrected; or

(3) the applicant has filed and is presently pursuing, in good faith, a direct administrative or judicial appeal to contest the validity of that violation.

(c) The Permit Board shall send copies of its decision to the applicant and to any interested party who requested a public hearing or filed written objections or comments to the renewal, if the interested party provided the Permit Board with a complete address and to OSM.

(d) Any interested party shall have the right to formal hearing and judicial review set forth in

§53-9-39, §53-9-77 and Chapter 33.

§3515. Transfer, Assignment or Sale of Permit Rights: General Requirements

No transfer, assignment, or sale of the rights granted under any permit issued pursuant to this regulatory program shall be made without the prior written approval of the Permit Board in the form of a new permit issued in the name of the transferee, in accordance with §53-9-21 of the act and §§3515-3517.

§3517. Transfer, Assignment or Sale of Permit Rights: Obtaining Approval

(a) A successor in interest to a permittee who applies for a new permit within thirty (30) days of succeeding to that interest, and who is able to obtain the bond coverage of the original permittee, pursuant to §53-9-31 of the act and Subpart IV, may continue surface coal mining and reclamation operations according to the approved mining and reclamation plan of the original permittee until the Permit Board takes action on the successor's application. Any person seeking to succeed by transfer, assignment or sale to the rights granted by a permit issued under this regulatory program shall, prior to the date of such transfer, assignment or sale:

(1) obtain appropriate performance bond coverage in an amount sufficient to cover the proposed operations, as required under subpart IV;

(2) provide the Permit Board with an application for approval of such proposed transfer, assignment or sale, including:

(A) the name and address of the existing permittee and permit number;

(B) a brief description of the proposed action requiring approval;

(C) for surface mining activities, the same information as is required by the act and §§2305, 2307, 2309, 2311(b), 2315 and 2317 for applications for new permits for those activities; and

(3) obtain the written approval of the Permit Board for transfer, assignment or sale of rights, according to the act and §3517(c).

(b)

(1) The person applying for approval of such transfer, assignment or sale of rights granted by a permit shall advertise the filing of the application as required for a new application under §53-9-37.

(2) Any interested party including, but not limited to, the head of any local, state or federal government agency may submit written comments on the application for approval to the Permit Board, within the thirty (30) days of the final date of

publication required by §3517(b)(1).

(c) The Permit Board may, upon the basis of the applicant's compliance with the requirements of §3517(a) and (b), grant written approval for the transfer, sale or assignment of rights under a permit, if it first finds, in writing, that:

(1) the applicant is eligible to receive a permit in accordance with §§3113 and 3115;

(2) the applicant has, in accordance with §3517(a)(1), submitted a performance bond or other collateral as required by Subpart IV and at least equivalent to the bond or other collateral of the original permittee;

(3) the applicant will continue to conduct the operations involved in full compliance with the terms and conditions of the original permit, unless and until it has obtained a new permit in accordance with this Subpart and as required in §53-9-21; and

(4) the applicant and application meet any other requirements specified by the Department.

(d) Notification

(1) the Permit Board shall notify the permittee, the successor, commentors, and OSM, of its findings;

(2) the successor shall immediately provide notice to the Permit Board of the consummation of the transfer, assignment or sale of permit rights.

Chapter 37. Small Operator Assistance

§3701. Authority

The Department shall provide financial and other assistance under §53-9-26 of the act subject to the availability of federal or other special funds for that purpose.

§3703. Responsibilities: General

The State Geologist shall:

(a) review requests for assistance and determine qualified operators;

(b) develop and maintain a list of qualified laboratories, and select and pay laboratories for services rendered;

(c) conduct periodic on-site evaluations of the Mississippi surface mining program activities with the appropriate small operator; and

(d) participate with the Office of Surface Mining in data coordination activities with the U.S. Geological Survey, U.S. Environmental Protection Agency, and other appropriate agencies or institutions.

§3705. Eligibility for Assistance

An applicant is eligible for assistance if he or she:

(a) intends to apply for a permit pursuant to the act;

(b) establishes that his or her probable total attributed annual production from all locations on which the operator is issued the surface coal mining and reclamation permit will not exceed 300,000 tons. Production from the following operations shall be attributed to the applicant:

(1) the pro rata share, based upon percentage of ownership of the applicant, of coal produced by operations in which the applicant owns more than a 10 percent interest;

(2) the pro rata share, based upon percentage of ownership of the applicant, of coal produced in other operations by persons who own more than 10 percent of the applicant's operation;

(3) all coal produced by operations owned by persons who directly or indirectly control the applicant by reason of direction of the management; and

(4) all coal produced by operations owned by members of the applicant's family and the applicant's relatives, unless it is established that there is no direct or indirect business relationship between or among them;

(c) is not restricted in any manner from receiving a permit under the permanent regulatory program; and

(d) does not organize or reorganize his or her company solely for the purpose of obtaining assistance under the Small Operator Assistance Program.

§3707. Filing for Assistance

Each applicant shall submit the following information to the State Geologist at any time after initiation of the Small Operator Assistance Program within the state:

(a) a statement of intent to file permit applications;

(b) the names and addresses of:

(1) the potential permit applicant; and

(2) the potential operator if different from the applicant.

(c) a schedule of the estimated total production of coal from the proposed permit area and all other locations from which production is attributed to the applicant under §3705. The schedule shall include for each location:

(1) the name under which coal is or will be mined;

(2) the permit number and Mining Health and Safety Administration identification number;

(3) the actual coal production for the year preceding the application for assistance and that portion of the production attributed to the applicant; and

(4) the estimated coal production for each year of the proposed permit and that portion attributed to the applicant;

(d) a description of:

(1) the method of surface coal mining operations proposed;

(2) the anticipated starting and termination date of mining operations;

(3) the number of acres of land to be affected by the proposed mining; and

(4) a general statement on the probable depth and thickness of the coal resource including a statement of reserves in the permit area and the method by which they were calculated;

(e) a U.S. Geological Survey topographic map of 1:24,000 scale or larger or other topographic map of equivalent detail which clearly shows:

(1) the area of land to be affected and the natural drainage above and below the affected area;

(2) the names of property owners in the area to be affected and of adjacent lands;

(3) the location of existing structures and developed water sources within the area to be affected and on adjacent lands;

(4) the location of existing and proposed test boring or core sampling; and

(5) the location and extent of known working of any underground mines;

(f) copies of documents which show that:

(1) the applicant has a legal right to enter and commence mining within the permit area; and

(2) a legal right of entry has been obtained for the Department to inspect the lands to be mined and adjacent lands which may be affected to collect environmental data or install necessary instruments.

§3709. Application Approval and Notice

(a) If the State Geologist determines that the applicant is eligible, he or she shall so recommend to the Commission, and shall inform the applicant in writing of his or her determination. The State Geologist will place the application on the agenda of a future Commission meeting for the Commission's consideration, and shall inform the applicant of the time and place of the Commission meeting. The Commission shall then determine the eligibility of the applicant.

(b) If the State Geologist finds the applicant ineligible, he or she shall inform the applicant in writing that the application is denied and shall state the reasons for denial. The determination of the State Geologist to deny the application shall be subject to review by the Commission at the request of the applicant.

§3711. Program Services and Data Requirements

(a) To the extent possible with available funds, the State Geologist shall select and pay a qualified laboratory to make the determination and statement and provide other services referenced in §3711(b) for eligible operators who request assistance.

(b) The State Geologist shall determine the data needed for each applicant or group of applicants. Data collected and the results provided to the State Geologist and the Department shall be sufficient to satisfy the requirements for:

(1) the determination of the probable hydrologic consequences of the surface mining and reclamation operations in the proposed permit area and adjacent areas, including the engineering analyses and designs necessary for the determination in accordance with §2523, and any other applicable provisions of these regulations; and

(2) the drilling and statement of the results of test borings or core samplings for the proposed permit area in accordance with §2509(b) and any other applicable regulations.

(3) the development of cross-section maps and plans required by §2537;

(4) the collection of archaeological and historic information and related plans required by §§2505 and 2731 and any other archaeological and historic information required

by the Department;

(5) pre-blast surveys required by §2707; and

(6) the collection of site-specific resources information, the production of protection and enhancement plans for fish and wildlife habitats required by §2713, and information and plans for any other environmental values required by the Department under the act.

(c) Data collection and analysis may proceed concurrently with the development of mining and reclamation plans by the operator.

(d) Data collected under this program shall be made publicly available in accordance with §3111. The State Geologist shall develop procedures for interstate coordination and exchange of data.

§3713. Qualified Laboratories

(a) General

As used in this Chapter, qualified laboratory means a designated public agency, private firm, institution, or analytical laboratory that can provide the required determination of probable hydrologic consequences or statement of results of test borings or core samplings or other services as specified at §3711 under the Small Operator Assistance Program and that meets the standards of §3713(b).

(b) Basic Qualifications

(1) To qualify for designation, the laboratory shall demonstrate to the State Geologist that it:

(A) is staffed with experienced, professional or technical personnel in the fields of hydrology, mining engineering, aquatic biology, geology or chemistry applicable to the work to be performed;

(B) is capable of competently collecting necessary field data and samples;

(C) has adequate space for material preparation, cleaning and sterilizing necessary equipment, and has stationary equipment, storage and space to accommodate periods of peak work loads;

(D) meets the requirements of the Occupational Safety and Health Act or the equivalent state safety and health program;

(E) has the financial capability and business organization necessary to perform

the work required.

(F) has analytical, monitoring and measuring equipment capable of meeting the applicable standards; and

(G) has the capability of making hydrologic field measurements and analytical laboratory determinations by acceptable hydrologic, geologic, or analytical methods in accordance with the requirements of §§2507 and 2509 and any other applicable provisions of these regulations. Other appropriate methods or guidelines for data acquisition may be approved by the State Geologist.

(2) The qualified laboratory must be capable of performing either the determination or statement under §3711.B. Subcontractors may be used to provide the services required provided their use is identified at the time a determination is made that a firm is qualified and they meet requirements specified by the State Geologist.

(3) The qualified laboratory must have a Quality Assurance/Quality Control (QA/QC) Program with a designated QA/QC officer. The qualified laboratory must submit their QA/QC information to the Department prior to conducting their services.

(4) The qualified laboratory must co-operate in an EPA, U.S.G.S. or similar Standard Performance Program under the guidance of the Department, if required.

§3715. Assistance Funding

(a) Use of Funds. Funds authorized for this program shall be used to provide the services specified in §3711 and shall not be used to cover administrative expenses.

(b) Allocation of Funds. The State Geologist shall to the extent practicable establish a formula for allocating funds among eligible small operators if available funds are less than those required to provide the services pursuant to this Chapter. This formula shall include such factors as the applicant's:

(1) anticipated date of filing a permit application;

(2) anticipated date for commencing mining; and

(3) performance history.

§3717. Applicant Liability

(a) The applicant shall reimburse the Department for the cost of the services performed pursuant to this Chapter if:

(1) the applicant submits false information, fails to submit a permit application within one year from the date of receipt of the approved laboratory report, or fails to mine after obtaining a permit;

(2) the Commission finds that the operator's actual and attributed annual production of coal for all locations exceeds 300,000 tons during the 12 months immediately following the date on which the operator is issued the surface coal mining and reclamation permit; or

(3) the permit is sold, transferred, or assigned to another person and the transferee's total actual and attributed production exceeds the 300,000 ton production limit during the 12 months immediately following the date on which the permit was originally issued. Under this Paragraph the applicant and its successor are jointly and severally obligated to reimburse the Department.

(b) The Commission may waive the reimbursement obligation if it finds that the applicant at all times acted in good faith.

Subpart IV
Bond and Insurance Requirements for Surface Coal Mining and Reclamation Operations

Chapter 39. General Requirements for Bonding of Surface Coal Mining and Reclamation Operations Under Regulatory Program

§3901. Requirement to File a Bond

(a) Before a permit is issued, the applicant shall file with the Department, on a form prescribed and furnished by the Department, a bond or bonds for performance made payable to the Commission and conditioned upon the faithful performance of all the requirements of the act, the regulatory program, the permit and the reclamation plan. "Bond" as used in this subpart includes other forms of collateral as approved by the Permit Board consistent with §53-9-31(2).

(b) An operator shall not disturb surface acreage or extend any operations prior to receipt of approval from the Permit Board of the performance bond covering the surface acreage to be affected.

(1) The bond or bonds shall cover that area of land within the permit area upon which the operator will initiate and conduct surface coal mining and reclamation operations during the initial term of the permit.

(2) As surface coal mining and reclamation operations on succeeding increments are initiated and conducted within the permit area, the permittee shall file with the Department an additional bond or bonds to cover those increments in accordance with §53-9-31 and this Section.

(3) The operator shall identify the initial and successive areas or increments for bonding on the permit application map submitted for approval as provided in the application and shall specify the bond amount to be provided for each area or increment.

(4) Independent increments shall be of sufficient size and configuration to provide for efficient reclamation operations should reclamation by the Department become necessary pursuant to this act and Chapter 47.

(c) An operator shall not disturb any surface areas, succeeding increments, or extend any underground shafts, tunnels or operations prior to approval by the Permit Board of the required performance bond.

(d) The applicant shall file, with the approval of the Permit Board, a bond or bonds under one of the following schemes to cover the bond amounts for the permit area as determined in accordance with §4101:

(1) a performance bond or bonds for the entire permit area;

(2) a cumulative bond schedule and the performance bond required for full reclamation of the initial area to be disturbed; or

(3) an incremental-bond schedule and the performance bond required for the first increment in the schedule.

(e) The amount, duration, form, conditions and terms of the performance bond shall conform to Chapters 41 and 43.

§3903. Requirement to File a Certificate of Liability Insurance

Each applicant for a permit shall submit to the Department, as part of the permit application:

(a) a certificate issued by an insurance company authorized to do business in the United States certifying that the applicant has a public liability insurance policy in force for the surface coal mining and reclamation operations for which the permit is sought; the amount, duration, form, conditions and terms of this insurance shall conform to §53-9-25(2) and §4309; or

(b) evidence that the applicant has satisfied other state or federal self-insurance requirements pursuant to §53-9-25(2) and §4309.

§3905. Responsibilities

(a) The Department shall prescribe and furnish the form for filing a performance bond.

(b) The Permit Board shall determine the amount of the performance bond required for the permit area, including adjustments to the initial amount from time-to-time as land acreage in the permit area are revised, or when other relevant conditions change according to the minimum requirements of §4107.

(c) The Permit Board may not accept a self-bond in lieu of a surety or collateral bond, unless the permittee meets the requirements of §4305 and any additional requirements in the program.

(d) The Permit Board shall release the permittee from his bond and insurance requirements consistent with Chapter 45.

(e) If the conditions specified in Chapter 47 occur, the Commission shall cause all or part of a bond to be forfeited consistent with Chapter 47.

(f) The Permit Board shall require in the permit that adequate bond coverage be in effect at all times. Except as provided in §4303(e)(6)(C), operating without a bond is a violation of a condition upon which the permit is issued.

Chapter 41. Amount and Duration of Performance Bond

§4101. Determination of Bond Amount

The standard applied by the Permit Board in determining the amount of performance bond shall be the estimated cost to the Department if it had to perform the reclamation, restoration and abatement work of a person who conducts surface coal mining and reclamation operations under the act, these regulations and the permit, and such additional work as would be required to achieve compliance with the general standards for revegetation in §53103(a)(5) in the event the permittee fails to implement an approved alternative postmining land use plan within the two years required by §53103. This amount shall be based on, but not be limited to:

(a) the estimated costs submitted by the permittee in accordance with §2715;

(b) the additional estimated costs to the Department which may arise from applicable public contracting requirements or the need to bring personnel and equipment to the permit area after its abandonment by the permittee to perform reclamation, restoration and abatement work;

(c) all additional estimated costs necessary, expedient and incident to the satisfactory completion of the requirements identified in this Section;

(d) an additional amount based on factors of cost changes during the preceding five years for the types of activities associated with the reclamation to be performed;

(e) such other cost information as may be required by or available to the Permit Board.

§4103. Minimum Amount

The amount of the bond for surface coal mining and reclamation operations shall be $10,000, at a minimum, for the entire area under one permit and be sufficient to assure performance of reclamation, restoration and abatement work required of a person who conducts surface coal mining and reclamation operations under the act, these regulations and the provisions of the permit, if the work had to be performed by the Department in the event of forfeiture.

§4105. Period of Liability

(a) Liability under performance bond(s) applicable to a permit shall continue until all reclamation, restoration and abatement work required of persons who conduct surface coal mining and reclamation operations under requirements of the act, these regulations, the regulatory program and the provisions of the permit has been completed, and the permit terminated by release of the permittee from any further liability in accordance with Chapter 45.

(b) In addition to the period necessary to achieve compliance with all requirements of the act, these regulations, the regulatory program and the permit, including the standards for the success of revegetation as required by §53103, the period of liability under performance bond shall continue for a minimum period beginning with the last year of augmented seeding, fertilizing, irrigation or other work. The minimum period of liability shall continue for not less than five full years. The period of liability shall begin again whenever augmented seeding, fertilizing, irrigation or other work is required or conducted on the site prior to bond release.

(c) If the Permit Board approves a long-term intensive agricultural post-mining land use, in accordance with §53109, the applicable five-year period of liability shall commence at the date of initial planting for such long-term intensive agricultural land use.

(d) With the approval of the Permit Board, a bond may be posted and approved to guarantee specific phases of reclamation within the permit area provided the sum of phase bonds posted equals or exceeds the total amount required under §§4103 and 4107. The scope of work to be guaranteed and the liability assumed under each phase bond shall be specified in detail.

(e) Isolated and clearly defined portions of the permit area requiring extended liability may be separated from the original area and bonded separately with the approval of the Permit Board. Such areas shall be limited in extent and not constitute a scattered, intermittent, or checkerboard pattern of failure. Access to the separated areas for remedial work may be included in the area under extended liability if deemed necessary by the Department.

(f) The bond liability of the permittee shall include only those actions which he or she is obligated to take under the permit, including completion of the reclamation plan, so that the land will be capable of supporting the postmining land use approved under §53109.

(g) Implementation of an alternative postmining land use approved under §53109(c) which is beyond the control of the permittee need not be covered by the bond. Bond liability for prime farmland shall be as specified in §4503(b).

§4107. Adjustment of Amount

(a) The amount of the performance bond liability applicable to a permit shall be adjusted by the Permit Board as the acreage in the permit area is modified, methods of mining operation change, standards of reclamation change or when the cost of future reclamation, restoration or abatement work changes. The Department shall notify the permittee, the surety and any person with a property interest in collateral posted as bond of any proposed bond adjustment and provide the permittee an opportunity to review and discuss the adjustment with the Department prior to the Permit Board's decision regarding the adjustment. The Department shall review each outstanding performance bond at the time that permit reviews are conducted under §3503, and re-evaluate those performance bonds in accordance with the standards in §4101.

(b) A permittee may request reduction of the required performance bond amount upon

submission of evidence to the Permit Board proving that the permittee's method of operation or other circumstances will reduce the maximum estimated cost to the department to complete the reclamation responsibilities and therefore warrant a reduction of the bond amount. Bond adjustments which involve undisturbed land or revision of the cost estimate of reclamation are not considered bond release subject to procedures of Chapter 45.

(c) In the event that an approved permit is modified or revised in accordance with §3505, the Permit Board shall review the bond for adequacy and, if necessary, shall require adjustment of the bond to conform to the permit as modified.

Chapter 43. Form, Conditions and Terms of Performance Bonds and Liability Insurance

§4301. Form of the Performance Bond

The form for the performance bond shall be prescribed by the Department in accordance with this Chapter. The Permit Board shall allow for either:

(1) a surety bond,

(2) a collateral bond,

(3) a self-bond,

(4) a letter or letters of credit, or

(5) a combination of any of these bonding methods.

§4303. Terms and Conditions of the Bond

(a) The performance bond shall be in an amount determined by the permit board as provided in §§4101 and 4103.

(b) The performance bond shall be payable to the Commission.

(c) The performance bond shall be conditioned upon faithful performance of all of the requirements of the act, these regulations and the conditions of the permit, and shall cover the entire permit area or an identified increment of land within the permit area upon which the operator will initiate and conduct surface coal mining and reclamation operations during the initial term of the permit.

(d) The duration of the bond shall be for the time period provided in §4105.

(e) Surety bonds shall be subject to the following conditions.

(1) The Permit Board shall not approve the bond of a surety company unless the bond

shall not be cancelable by the surety at any time for any reason including, but not limited to, nonpayment of premium or bankruptcy of the permittee during the period of liability. Surety bond coverage for permitted lands not disturbed may be canceled with the consent of the Permit Board; provided, the surety gives at least 60 days notice to both the permittee and the Permit Board of the intent to cancel prior to cancellation. Such notice shall be by certified mail and shall not be effective until received by both the permittee and Permit Board. Cancellation shall not be effective for lands subject to bond coverage which are disturbed after receipt of notice, but prior to approval by the Permit Board. The Permit Board may approve such cancellation only if a replacement bond is filed by the permittee prior to the cancellation date, or the permit is amended so that the surface coal mining operations approved under the permit are reduced to the degree necessary to cover all the costs attributable to the completion of reclamation operations on the reduced permit area in accordance with Chapter 41 and the remaining performance bond liability.

(2) The Permit Board shall not accept surety bonds in excess of 10 percent of the surety company's capital surplus account as shown on the balance sheet certified by a certified public accountant, unless otherwise provided by law.

(3) The Permit Board shall not accept surety bonds from a surety company for any person, on all permits held by that person, in excess of three times the company's maximum single obligation as provided by state law, or, in the absence of state law, as provided in §4303(e)(2).

(4) The Permit Board may provide in the bond that the amount shall be confessed to judgment upon forfeiture.

(5) The bond shall provide that the surety and the permittee shall be liable jointly and severally.

(6) The bond shall provide that:

(A) the surety will give prompt notice to the permittee and the Permit Board of any notice received or action filed alleging the insolvency or bankruptcy of the surety or the permittee, or alleging any violations of regulatory requirements which could result in suspension or revocation of the surety's license to do business;

(B) in the event the surety becomes unable to fulfill its obligations under the bond for any reason, notice shall be given immediately to the permittee and the Permit Board;

(C) upon the incapacity of a surety company by reason of bankruptcy, insolvency, or suspension or revocation of a charter or license, the permittee shall be deemed to be without bond coverage and shall promptly notify the Permit Board. The Permit Board, upon notification received through the procedures

of §4303(e)(6)(A) or from the permittee, shall, in writing, notify the operator who is without bond coverage and specify a reasonable period, not to exceed 90 days, to replace bond coverage. If an adequate bond is not posted by the end of the period allowed, the operator shall cease coal extraction and shall comply with the provisions of §53107 and shall immediately begin to conduct reclamation operations in accordance with the reclamation plan. Mining operations shall not resume until the Permit Board has determined that an acceptable bond has been posted.

(7) A surety bond shall be executed by the operator and a corporate surety licensed to do business in Mississippi.

(f) Collateral bonds, except for letters of credit and cash accounts, shall be subject to the following conditions.

(1) The Department shall obtain possession of and keep in custody all collateral deposited by the applicant, until authorized for release or replacement as provided in this Subpart.

(2) The Permit Board shall value collateral at their current market value, not face value.

(3) The Permit Board shall require that all collateral bonds comply with the provisions of §105.Collateral Bond.

(4) The Permit Board shall require that certificates of deposit be assigned to the Commission, in writing, and upon the books of the bank issuing such certificates.

(5) The Permit Board shall not accept an individual certificate of deposit for a denomination in excess of $100,000 or maximum insurable amount as determined by FDIC and FSLIC.

(6) The Permit Board shall require the banks issuing certificates of deposit to waive all rights of set off or liens which it has or might have against those certificates.

(7) The Permit Board shall only accept automatically renewable certificates of deposit.

(8) The Permit Board shall value certificates of deposit for full or partial fulfillment of the bonding requirement at the certificate's face value and shall not allow future accrued interest to be considered in that valuation.

(9) The estimated bond value of all collateral posted as assurance under this Section shall be subject to a margin which is the ratio of bond value to market value, as determined by the Permit Board. The margin shall reflect legal and liquidation fees, as well as value depreciation, marketability and fluctuations which might affect the net cash available to the Department to complete reclamation.

(10) The bond value of collateral may be evaluated at any time, but it shall be evaluated as part of permit renewal and, if necessary, the performance bond amount increased or decreased. In no case shall the bond value of collateral exceed the market value.

(11) Persons with an interest in collateral posted as a bond, and who desire notification of actions pursuant to the bond, shall request the notification in writing to the Department at the time collateral is offered.

(g) Letters of credit shall be subject to the following conditions.

(1) The letter may only be issued by a bank organized or authorized to do business in the United States.

(2) Letters of credit shall be irrevocable during their term. A letter of credit used as security in areas requiring continuous bond coverage shall be forfeited and shall be collected by the Commission if not replaced by other suitable bond or letter of credit at least 30 days before its expiration date.

(3) The letter must be payable only to the Commission in part or in full upon demand and receipt from the Commission of a notice of forfeiture issued in accordance with Chapter 47.

(4) The Permit Board shall not accept a letter of credit in excess of 10 percent of the bank's capital surplus account as shown on a balance sheet certified by a certified public accountant.

(5) The Permit Board shall not accept letters of credit from a bank for any person, on all permits held by that person, in excess of three times the company's maximum single obligation as provided by state law or, in the absence of state law, as provided in § 4303(g)(4).

(6) The Permit Board may provide in the letter of credit that the amount shall be confessed to judgment upon forfeiture.

(7) The letter of credit shall provide that:

(A) the bank will give prompt notice to the permittee and the Department of any notice received or action filed alleging the insolvency or bankruptcy of the bank, or alleging any violations of regulatory requirements which could result in suspension or revocation of the bank's charter or license to do business;

(B) in the event the bank becomes unable to fulfill its obligations under the letter of credit for any reason, notice shall be given immediately to the permittee and the Department;

(C) upon the incapacity of a bank by reason of bankruptcy, insolvency, or

suspension or revocation of a charter or license, the permittee shall be deemed to be without bond coverage and shall promptly notify the Department. The Department, upon notification received through the procedures of §4303(g)(7)(A) or from the permittee, shall, in writing, notify the operator who is without bond coverage and specify a reasonable period, not to exceed 90 days, to replace bond coverage. If an adequate bond is not posted by the end of the period allowed, the operator shall cease coal extraction and shall comply with the provisions of §53107 and shall immediately begin to conduct reclamation operations in accordance with the reclamation plan. Mining operations shall not resume until the Permit Board has determined that an acceptable bond has been posted.

(8) Persons with an interest in the letter of credit, and who desire notification of actions pursuant to the letter, shall request the notification in writing to the Department at the time the letter is offered.

(h) Cash accounts shall be subject to the following conditions:

(1) The Permit Board may authorize the operator to supplement the bond through the establishment of a cash account in one or more federally-insured or equivalently protected accounts made payable upon demand to, or deposited directly with, the Commission. The total bond including the cash account shall not be less than the amount required under terms of performance bonds including any adjustments, less amounts released in accordance with Chapter 45.

(2) Any interest paid on a cash account shall be retained in the account and applied to the bond value of the account unless the Permit Board has approved the payment of interest to the operator.

(3) Certificates of deposit may be substituted for a cash account with the approval of the Permit Board.

(4) The Permit Board shall not accept an individual cash account in an amount in excess of $100,000 or the maximum insurable amount as determined by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation.

§4305. Self-bonding

(a) The Permit Board may accept a self-bond from an applicant for a permit if all of the following conditions are met by the applicant or its parent corporation guarantor:

(1) The applicant designates with the Mississippi Secretary of State a suitable agent to receive service of process in the state of Mississippi.

(2) The applicant has been in continuous operation as a business entity for a period of not less than five years. Continuous operation shall mean that business was conducted

over a period of five years immediately preceding the time of application.

(A) The Permit Board may allow a joint venture or syndicate with less than five years of continuous operation to qualify under this requirement, if each member of the joint venture or syndicate has been in continuous operation for at least five years immediately preceding the time of application.

(B) When calculating the period of continuous operation, the Permit Board may exclude past periods of interruption to the operation of the business entity that were beyond the applicant's control and that do not affect the applicant's likelihood of remaining in business during the proposed surface coal mining and reclamation operations.

(3) The applicant submits financial information in sufficient detail to show that the applicant meets one of the following criteria:

(A) the applicant has a current rating for its most recent bond issuance of "A" or higher as issued by either Moody's Investor Service or Standard and Poor's Corporation;

(B) the applicant has a tangible net worth of at least $10 million, a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater; or

(C) the applicant's fixed assets in the United States total at least $20 million, and the applicant has a ratio of total liabilities to net worth of 2.5 times or less, and a ratio of current assets to current liabilities of 1.2 times or greater.

(4) The applicant submits:

(A) financial statements for the most recently completed fiscal year accompanied by a report prepared by an independent certified public accountant in conformity with generally accepted accounting principles and containing the accountant's audit opinion or review opinion of the financial statements with no adverse opinion;

(B) unaudited financial statements for completed quarters in the current fiscal year; and

(C) additional unaudited information as requested by the Department.

(b) The Permit Board may accept a written guarantee for an applicant's self-bond from a parent corporation guarantor, if the guarantor meets the conditions of §4305(a)(1)-(4) as if it were the applicant. Such a written guarantee shall be referred to as a "corporate guarantee." The terms of the corporate guarantee shall provide for the following:

(1) if the applicants fails to complete the reclamation plan, the guarantor shall do so or the guarantor shall be liable under the indemnity agreement to provide funds to the Commission sufficient to complete the reclamation plan, but not to exceed the bond amount;

(2) the corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the applicant and to the Department at least 90 days in advance of the cancellation date, and the Permit Board accepts the cancellation;

(3) the cancellation may be accepted by the Permit Board if the applicant obtains suitable replacement bond before the cancellation date or if the lands for which the self-bond, or portion thereof, was accepted have not been disturbed;

(4) the Permit Board may accept a written guarantee for an applicant's self-bond from any corporate guarantor, whenever the applicant meets the conditions of §4305(a)(1)-(2) and (4), and the guarantor meets the conditions of §4305(a)(1)-(4). Such a written guarantee shall be referred to as a "non-parent corporate guarantee." The terms of this guarantee shall provide for compliance with the conditions of §4305(b)(1)-(4). The Department or Permit Board may require the applicant to submit any information specified in §4305(a)(3) in order to determine the financial capabilities of the applicant.

(c) For the Permit Board to accept an applicant's self-bond, the total amount of the outstanding and proposed self-bonds of the applicant for surface coal mining and reclamation operations shall not exceed 25 percent of the applicant's tangible net worth in the United States. For the Permit Board to accept a corporate guarantee, the total amount of the parent corporation guarantor's present and proposed self-bonds and guaranteed self-bonds for surface coal mining and reclamation operations shall not exceed 25 percent of the guarantor's tangible net worth in the United States. For the Permit Board to accept a non-parent corporate guarantee, the total amount of the non-parent corporate guarantor's present and proposed self-bonds and guaranteed self-bonds shall not exceed 25 percent of the guarantor's tangible net worth in the United States.

(d) If the Permit Board accepts an applicant's self-bond, an indemnity agreement shall be submitted subject to the following requirements.

(1) The indemnity agreement shall be executed by all persons and parties who are to be bound by it, including the parent corporation guarantor, and shall bind each jointly and severally.

(2) Corporations applying for a self-bond, and parent and non-parent corporations guaranteeing an applicant's self-bond, shall submit an indemnity agreement signed by two corporate officers who are authorized to bind their corporations. A copy of such authorization shall be provided to the of Department along with an affidavit

certifying that such an agreement is valid under all applicable federal and state laws. In addition, the guarantor shall provide a copy of the corporate authorization demonstrating that the corporation may guarantee the self-bond and execute the indemnity agreement.

(3) If the applicant is a partnership, joint venture or syndicate, the agreement shall bind each partner or party who has a beneficial interest, directly or indirectly, in the applicant.

(4) Pursuant to Chapter 47, the applicant, parent or non-parent corporate guarantor shall be required to complete the approved reclamation plan for the lands in default or to pay to the Commission an amount necessary to complete the approved reclamation plan, not to exceed the bond amount. If permitted under state law, the indemnity agreement when under forfeiture shall operate as a judgment against those parties liable under the indemnity agreement.

(e) The Department may require self-bonded applicants, parent and non-parent corporate guarantors to submit an update of the information required under §4305(a)(3) and (4) within 90 days after the close of each fiscal year following the issuance of the self-bond or corporate guarantee.

(f) If at any time during the period when a self-bond is posted, the financial conditions of the applicant, parent or non-parent corporate guarantor change so that the criteria of §4305(a)(3) and (c) are not satisfied, the permittee shall notify the Department immediately and shall within 90 days post an alternate form of bond in the same amount as the self-bond. Should the permittee fail to post an adequate substitute bond, the provisions of §4303(e)(6) shall apply.

§4307. Replacement of Bonds

(a) The Permit Board may allow permittees to replace existing surety or collateral bonds with other surety or collateral bonds, if the liability which has accrued against the permittee on the permit area is transferred to such replacement bonds.

(b) The Permit Board may allow the permittee to replace existing surety or collateral bonds with a self-bond, provided that the permittee meets the requirements of self-bonding as provided in §4305.

(c) The Permit Board shall not release existing performance bonds until the permittee has submitted and the Permit Board has approved acceptable replacement performance bonds. A replacement of performance bonds pursuant to this Section shall not constitute a release of bond under Chapter 45.

§4309. Terms and Conditions for Liability Insurance

(a) The Department shall require the applicant to submit at the time of permit application a

certificate issued by an insurance company authorized to do business in the United States certifying that the applicant has a public liability insurance policy in force for the surface coal mining and reclamation operation for which the permit is sought. The policy shall provide for personal injury and property damage protection in an amount adequate to compensate all persons injured or property damaged as a result of surface coal mining and reclamation operations, including use of explosives and damage to water wells, and entitled to compensation under the applicable provisions of state law. Minimum insurance coverage for bodily injury shall be $300,000 for each occurrence and $500,000 aggregate; and minimum insurance coverage for property damage shall be $300,000 for each occurrence and $500,000 aggregate.

(b) The policy shall be maintained in full force during the life of the permit or any renewal thereof, including completion of all reclamation operations under these regulations.

(c) The policy shall include a rider requiring that the insurer notify the Department whenever substantive changes are made in the policy, including any termination or failure to renew.

(d) The Department may accept from the applicant, in lieu of a certificate for public liability insurance policy, satisfactory evidence from the applicant that it satisfies applicable state self-insurance requirements. This subsection will become effective only upon the promulgation of regulations by the Commission or other appropriate state agency regarding self-insurance requirements of the state of Mississippi and approval of these regulations by the Secretary of the Interior.

Chapter 45. Procedures, Criteria and Schedule for Release of Performance Bond

§4501. Procedures for Seeking Release of Performance Bond

(a) Bond Release Application and Contents. The permittee or any person authorized to act on his behalf may file an application with the Permit Board for release of all or part of the performance bond.

(1) Applications may only be filed at times or seasons that allow the Department to evaluate properly the reclamation operations alleged to have been completed. The times or seasons appropriate for the evaluation of certain types of reclamation shall be identified in the mining and reclamation operations plan required in Subpart III of these regulations and approved by the Permit Board.

(2) The application shall include copies of letters sent to adjoining property owners, surface owners, local government bodies, planning agencies, and sewage and water treatment facilities or water companies in the locality of the permit area notifying them of the permittee's intention to seek release of performance bond(s). These letters shall be sent before the permittee files the application for release. These letters shall be sent certified mail to all listed public entities.

(3) Within 30 days after filing the application for release, the permittee shall submit proof of publication of the advertisement required by §4501(b). Such proof of publication shall be considered part of the bond release application.

(4) The permittee shall include in the application for bond release a notarized statement which certifies that all applicable reclamation activities have been accomplished in accordance with the requirements of the act, the regulatory program, and the approved reclamation plan. Such certification shall be submitted for each application or phase of bond release.

(b) Newspaper Advertisement of Application. At the time of filing an application under this Section, the permittee shall advertise the filing of the application in a local newspaper and in a regional newspaper of general circulation. The advertisement shall:

(1) be placed in the newspaper at least once a week for four consecutive weeks;

(2) show the name of the permittee, including the number and date of issuance or renewal of the permit;

(3) show the precise location and the number of acres of the lands subject to the application;

(4) show the total amount of bond in effect for the permit area and the amount for which release is sought;

(5) summarize the reclamation, restoration or abatement work done including, but not limited to, backstowing or mine sealing, if applicable, and give the dates of completion of that work;

(6) describe the reclamation results achieved, as they relate to compliance with the act, these regulations, and the approved mining and reclamation plan and permit; and

(7) state that written comments, objections and requests for a public hearing may be submitted to the Department; provide the address of the Department; and provide the closing date by which comments, objections and requests must be received.

(c) Objections and Requests for Hearing. Written objections to the proposed bond release and requests for a public hearing may be filed with the Department within thirty (30) days following the last advertisement of the filing of the application. Written objections and requests for public hearings may be filed by any interested party or any Federal, State, or local governmental agency which has jurisdiction or special expertise with respect to any environmental, social or economic impact involved in the operation or which is authorized to develop and enforce environmental standards. If requested, the Permit Board shall hold a public hearing. The Permit Board on its own motion may hold a public hearing concerning the bond release application.

(d) Inspection by Department. Upon receipt of the bond release application the Department shall, within 30 days, or as soon thereafter as weather conditions permit, conduct an inspection and evaluation of the reclamation work involved. The evaluation shall consider, among other factors, the degree of difficulty to complete any remaining reclamation, whether pollution of surface water or ground water is occurring, the probability of future occurrence of such pollution and the estimated cost of abating such pollution. The surface owner, agent or lessee shall be given notice of such inspection and may participate with the Department in making the bond release inspection. The Department may arrange with the permittee to allow access to the permit area, upon request by any person with an interest in bond release, for the purpose of gathering information relevant to the proceeding.

(e) Public Hearing. The Permit Board shall schedule a public hearing if a hearing is requested, within sixty (60) days of the receipt of the request. The hearing shall be held in the locality of the permit area for which bond release is sought.

(1) The date, time and location of the public hearing shall be advertised by the Permit Board in the same manner as provided for the publication of notice for advertisement of land ownership under § 53-9-37. The last public hearing notice shall be published at least seven (7) days, but no more than fourteen (14) days before the scheduled public hearing date.

(2) If all persons requesting the public hearing stipulate agreement before the requested public hearing, the public hearing may be canceled at the discretion of the Permit Board.

(3) An electronic or stenographic record shall be made of the hearing and the record maintained for access by the parties pursuant to the Mississippi Public Records Act.

(4) The Department shall, in response to a specific request therefor, arrange with the applicant for reasonable public access to the area which forms the subject of the hearing. Such access shall be made available at a specific date and time at least one week before the date of the hearing. Information regarding this right to request access shall be included with the notice of public hearing. Any member of the public who enters upon the subject area in accordance with this Section shall comply with all state and federal laws and regulations regarding health and safety on a mine site including, but not limited to, regulations promulgated by the Commission, the Office of Surface Mining, the Mine Safety and Health Administration and the Occupational Health and Safety Administration. The applicant will have available, in various sizes, any special equipment to be worn under the foregoing laws and regulations including, but not limited to, mandated types of headgear, footgear and eyewear.

(f) Department Review and Decision

(1) The Permit Board shall consider in making its decision:

(A) whether the permittee has met the criteria for release of the bond under

§4503;

(B) the degree of difficulty in completing any remaining reclamation, restoration or abatement work; and

(C) whether pollution of surface water or ground water is occurring, the probability of future pollution or the continuance of any present pollution, and the estimated cost of abating any pollution.

(2) Within 60 days from the filing of the bond release application, if no public hearing is held pursuant to Chapter 45 or within 30 days after a public hearing has been held pursuant to Chapter 45, the Permit Board shall act on the bond release application and shall promptly notify in writing the permittee, the surety or other persons with an interest in bond collateral who have requested notification under §4303, and the persons who filed objections or written comments, if any regarding the performance bond.

(3) The notice of the decision shall state the reasons for the decision, recommend any corrective actions necessary to secure the release, and notify the permittee and all interested parties of their right to request a formal hearing in accordance with §53-9-77 and §4501.

(4) If the Permit Board disapproves the application for release of the bond or portion thereof, the Permit Board shall notify the permittee, the surety, and any person with an interest in collateral as provided for in §4303(f)(11) and (g)(8), in writing, stating the reasons for disapproval and recommending corrective actions necessary to secure the release and allowing an opportunity for a formal hearing.

(5) The Permit Board shall not release the bond until the right to request a formal hearing pursuant to §4501 has not been exercised, or a final decision by the hearing authority approving the release has been issued pursuant to §4501.

(6) When an application for total or partial bond release is filed with the Department, the Department shall notify the local government in which the surface coal mining operation is located by certified mail at least thirty (30) days prior to the release of all or portion of the bond.

(g) Formal Hearings.

The applicant or any interested party to the bond release decision may request a formal hearing pursuant to §53-9-65(4) within thirty (30) days of Permit Board action.

§4503. Criteria and Schedule for Release of Performance Bond

(a) The Permit Board may release all or part of the bond for the entire permit area or incremental area if the Permit Board is satisfied that all the reclamation or a phase of the reclamation

covered by the bond or portion thereof has been accomplished in accordance with the following schedules for reclamation of Phases I, II and III:

(1) At the completion of Phase I, after the operator completes the backfilling, regrading (which may include the replacement of topsoil) and drainage control of a bonded area in accordance with the approved reclamation plan, 60 percent of the bond or collateral for the applicable area.

(2) At the completion of Phase II, after revegetation has been established on the regraded mined lands in accordance with the approved reclamation plan, an additional amount of bond. When determining the amount of bond to be released after successful revegetation has been established, the Permit Board shall retain that amount of bond for the revegetated area which would be sufficient to cover the cost of reestablishing revegetation if completed by a third party and for the period specified for operator responsibility in §53-9-45 for reestablishing revegetation. No part of the bond or deposit shall be released under this paragraph so long as the lands to which the release would be applicable are contributing suspended solids to streamflow or runoff outside the permit area in excess of the requirements set by Subpart V of these regulations or until soil productivity for prime farmlands has returned to the equivalent levels of yield as nonmined land of the same soil type in the surrounding area under equivalent management practices as determined from the soil survey performed pursuant to §2539 of these regulations. Where a silt dam is to be retained as a permanent impoundment pursuant to Subpart V, the Phase II portion of the bond may be released under this paragraph so long as provisions for sound future maintenance by the operator or the landowner have been made with the regulatory authority.

(3) At the completion of Phase III, after the operator has completed successfully all surface coal mining and reclamation activities, the release of the remaining portion of the bond, but not before the expiration of the period specified for operator responsibility in §53-9-45 and these regulations. However, no bond shall be fully released under provisions of this section until reclamation requirements of the Act and the permit are fully met.

(b) For the purposes of this Chapter:

(1) reclamation phase I shall be deemed to have been completed when the permittee completes backfilling, topsoil replacement, regrading and drainage control in accordance with the approved reclamation plan;

(2) reclamation phase II shall be deemed to have been completed when:

(A) revegetation has been established in accordance with the approved reclamation plan and the standards for the success of revegetation are met;

(B) the lands are not contributing suspended solids to stream flow or runoff

outside the permit area in excess of the requirements of Subpart V of these regulations or the permit;

(C) with respect to prime farmlands, soil productivity has been returned to the level of yield as required by §2907 and Chapter 55 when compared with non-mined prime farmland in the surrounding area as determined from the soil survey performed under and the plan approved under §2539;

(D) the provisions of a plan approved by the Permit Board for the sound future management of any permanent impoundment by the permittee or landowner have been implemented to the satisfaction of the office.

(3) reclamation phase III will be deemed to have been completed when the permittee has successfully completed all surface coal mining and reclamation operations in accordance with the approved reclamation plan, including the implementation of any alternative land use plan approved pursuant to §53109, and has achieved compliance with the requirements of the act, these regulations, the regulatory program, and the permit, and the applicable liability period under §4105 of this Subpart has expired.

Chapter 47. Performance Bond Forfeiture Criteria and Procedures

§4701. General

(a) Except as in compliance with § 4701(b), the Commission shall proceed to cause the forfeiture of all or part of a bond or other collateral accepted pursuant to Chapter 43 for any permit where required or authorized by §4705.

(b) The Commission may withhold forfeiture, if the permittee and surety, if applicable, agree to a compliance schedule to comply with the violations of the permit or bond conditions.

§4703. Procedures

(a) (1) If a surface coal mining and reclamation operation is not proceeding in accordance with the act or the permit, the operation represents an imminent threat to the public health, welfare and the environment, and the operator has failed, within thirty (30) days after written notice to the operator and opportunity for a formal hearing, to take appropriate corrective action, a forfeiture proceeding may be commenced by the Commission against the operator for any performance bond or other collateral posted by the operator.

(2) A forfeiture proceeding against any performance bond or other collateral shall be commenced and conducted according to §§49-17-31 through 49-17-41.

(3) If the Commission orders forfeiture of any performance bond or other collateral, the entire sum of the performance bond or other collateral, the entire sum of the

performance bond or other collateral shall be forfeited by the Department. The funds from the forfeited performance bond or other collateral shall be used to pay for reclamation of the permit area and remediation of any offsite damages resulting from the operation. Any surplus performance bond or other collateral funds shall be refunded to the operator or corporate surety.

(4) Forfeiture proceedings shall be before the Commission and an order of the Commission under this subsection shall be a final order. If the Commission determines that forfeiture of the performance bond or other collateral should be ordered, the Department shall have the immediate right to all funds of any performance bond or other collateral, subject only to review and appeals allowed under §49-17-41.

(5) If the operator cannot be located for purposes of notice, the Department shall send notice of the forfeiture proceeding, certified mail, return receipt requested, to the permittee's, surety's, and operator's last known address. The Department shall also publish notice of the forfeiture proceeding in the same manner as provided for the publication of notice for the advertisement of land ownership under §53-9-37. Any formal hearing on the bond forfeiture shall be set at least thirty (30) days after the last notice publication.

(6) At least ten (10) days prior to commencement of a forfeiture proceeding, the Department shall notify the permittee and surety, if applicable, of the conditions under which forfeiture may be avoided. Such conditions may include, but are not limited to:

(A) agreement by the permittee or another party to an order of the Commission requiring that party to perform reclamation operations in accordance with a compliance schedule which meets the conditions of the permit, the reclamation plan and the regulatory program and to provide a demonstration that such party has the ability to satisfy the conditions; or

(B) the Commission may allow a surety to complete the reclamation plan, or the portion of the reclamation plan applicable to the bonded phase or increment, if the surety can demonstrate an ability to complete the reclamation in accordance with the approved reclamation plan. Except where the Permit Board may approve partial release authorized under Chapter 45, no surety liability shall be released until successful completion of all reclamation under the terms of the permit, including the applicable liability periods of §4105;

(7) The Commission may proceed in an action for collection on the bond as provided by §53-9-65(g) for the collection of defaulted bonds or other debts.

(8) The Commission may use funds collected from bond forfeiture to complete the reclamation plan, or portion thereof, on the permit area or increment, to which bond coverage applies.

(b) The Commission may forfeit any or all bond deposited for an entire permit area, in order to satisfy §4701-4707. Liability under any bond, including separate bond increments or indemnity agreements applicable to a single operation, shall extend to the entire permit area.

(c) If the performance bond or other collateral is insufficient to cover the costs of reclamation of the permit area or remediation of any offsite damages, the Commission may initiate a civil action to recover the deficiency amount in the county in which the surface coal mining operation is located. If the Commission initiates a civil action, the Commission shall be entitled to any sums necessary to complete reclamation of the permit area and remediate any offsite damages resulting from that operation, and attorneys' fees.

(1) The Department may complete, or authorize completion of, reclamation of the bonded area and may recover from the operator all costs of reclamation in excess of the amount forfeited.

(2) In the event the amount of performance bond forfeited was more than the amount necessary to complete reclamation, the unused funds shall be returned by the Commission to the party from whom they were collected.

§4705. Criteria for Forfeiture

(a) A bond shall be forfeited if the Commission finds that:

(1) the permittee has violated any of the terms or conditions of the bond; or

(2) the permittee has failed to conduct the surface mining and reclamation operations in accordance with the act, the conditions of the permit or these regulations within the time required by the act, these regulations and the permit; or

(3) the permit for the area under bond has been revoked, unless the operator assumes liability for completion of reclamation work; or

(4) the permittee has failed to comply with a compliance schedule approved pursuant to §4701(b).

(b) A bond may be forfeited if the Commission finds that:

(1) the permittee has become insolvent, failed in business, been adjudicated a bankrupt, filed a petition in bankruptcy or for a receiver or had a receiver appointed by any court; or a creditor of the permittee has attached or executed a judgment against the permittee's equipment, materials, facilities at the permit area or on the collateral pledged to the Commission;

(2) the permittee cannot demonstrate or prove the ability to continue to operate in compliance with the act, these regulations and the permit.

§4707. Determination of Forfeiture Amount

The Commission shall either:

(a) determine the amount of the bond to be forfeited on the basis of the estimated cost to the Department or its contractor to complete the reclamation plan and other regulatory requirements in accordance with the act, these regulations and the requirements of the permit; or

(b) forfeit the entire amount of the bond for which liability is outstanding and deposit the proceeds thereof in an interest-bearing escrow account for use in the payment of all costs and administrative expenses associated with the conduct of reclamation, restoration or abatement activities by the Department. In the event the amount of performance bond forfeited was more than the amount necessary to complete reclamation, the unused funds shall be returned by the Commission to the party from whom they were collected.

Subpart V. Permanent Program Performance Standards

Chapter 49. Permanent Program Performance Standards: General Provisions

§4901. Responsibility

(a) The Commission shall ensure that performance standards and design requirements are implemented and enforced.

(b) Each person conducting coal exploration, development operations or surface coal mining and reclamation operations is responsible for complying with performance standards and design requirements.

Chapter 51. Permanent Program Performance Standards: Coal Exploration and Development Operations

§5101. General Responsibility of Persons Conducting Coal Exploration or Development

(a) Each person who conducts coal exploration which does not substantially disturbs the natural land surface and in which 250 tons or less of coal are removed shall file a notice of intent in accord with chapter 21 and shall comply with §5105.

(b) Each person who conducts coal exploration which substantially disturb the natural land surface or in which more than 250 tons of coal are removed in the area described by the exploration permit required by chapter 21 shall comply with the procedures described in the exploration permit, chapter 21, and §5105.

§5103. Required Documents

Each person who conducts coal exploration which substantially disturbs the natural land surface shall, while in the exploration area, possess written approval of the Permit Board for the activities approved under Chapter 21. The permit shall be available for review by the authorized representative of the Department upon request.

§5105. Performance Standards for Coal Exploration or Development

The performance standards in this Section are applicable to coal exploration which substantially disturbs the land surface.

(a) Habitats of unique or unusually high value for fish, wildlife and other related environmental values and critical habitats of threatened or endangered species identified pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) shall not be disturbed during coal exploration.

(b) The person who conducts coal exploration shall, to the extent practicable, measure important environmental characteristics of the exploration area during the operations to minimize environmental damage to the area and to provide supportive information for any permit application that person may submit under Subpart III.

(c) All roads or other transportation facilities used for coal exploration shall comply with the applicable provisions of §§53111 and 53115- 53117.

(d) If excavations, artificial flat areas or embankments are created during exploration, these areas shall be returned to the approximate original contour promptly after such features are no longer needed for coal exploration.

(e) Topsoil shall be separately removed, stored and redistributed on disturbed areas as necessary to assure successful revegetation or as required by the Permit Board.

(f) Revegetation of areas disturbed by coal exploration operations shall be performed by the person who conducts the exploration, or his or her agent. All areas disturbed by coal exploration activities shall be revegetated in a manner that encourages prompt revegetation and recovery of a diverse, effective and permanent vegetative cover. Revegetation shall be accomplished in accordance with the following:

(1) All disturbed lands shall be seeded or planted to the same seasonal variety native to the disturbed area. If both the pre-exploration or pre-development and post-exploration or post-development land uses are intensive agriculture, planting of the crops normally grown will meet the requirements of this Subsection.

(2) The vegetative cover shall be capable of stabilizing the soil surface against erosion.

(g) Diversions of overland flows and ephemeral, perennial or intermittent streams shall be made in accordance with §5317.

(h) Each exploration hole, borehole, well or other exposed underground opening created during exploration must meet the requirements of §§5303, 5305, and 5307.

(i) All facilities and equipment shall be removed from the exploration area promptly when they are no longer needed for exploration, except for those facilities and equipment that the Permit Board determines may remain to:

(1) provide additional environmental quality data;

(2) reduce or control the on- and off-site effects of the exploration activities; or

(3) facilitate future surface mining and reclamation operations by the person conducting the exploration, under an approved permit.

(j) Coal exploration shall be conducted in a manner which minimizes disturbance of the prevailing hydrologic balance, in accordance with §§5317-5343. The Permit Board may specify additional measures which shall be followed by the person engaged in coal exploration.

(k) Toxic- or acid-forming materials shall be handled and disposed of in accordance with §§5325, 5329, 5331, and 5391(e). If specified by the Permit Board, additional measures shall be followed by the person engaged in coal exploration.

Chapter 53. Permanent Program Performance Standards Surface Mining Activities

§5301. Signs and Markers

(a) Each permittee shall conspicuously maintain at the entrance to the surface coal mining and reclamation operation a clearly visible sign. Signs and markers required under §53-9-53 and this Chapter shall:

(1) be posted and maintained by the person who conducts the surface mining activities;

(2) be of a uniform design throughout the operation that can be easily seen and read;

(3) be made of durable material; and

(4) conform to local ordinances and codes.

(b) Duration of Maintenance. Signs and markers shall be maintained during the conduct of all activities to which they pertain.

(c) Mine and Permit Identification Signs

(1) Identification signs shall be displayed at each point of access to the permit area from public roads.

(2) Signs shall show the name, business address and telephone number of the permittee and the permit number of the current permit authorizing surface mining and reclamation activities. The signs shall also state that questions and complaints regarding the surface coal mining and reclamation operations may be directed to the Department and shall provide the Department's telephone number.

(3) Signs shall be retained and maintained until after the release of all bonds for the permit area.

(d) Perimeter Markers. The perimeter of a permit area shall be clearly marked before the beginning of surface mining activities.

(e) Buffer Zone Markers. Buffer zones shall be marked along their boundaries as required under

§5343.

(f) Blasting Signs. If blasting is conducted incident to surface mining activities, the person who conducts these activities shall:

(1) conspicuously display signs reading "Blasting Area" along the edge of any blasting area that comes within 50 feet of any road within the permit area, or within 100 feet of any public road right of way;

(2) conspicuously flag, or post within the blasting area, the immediate vicinity of charged holes as required by §5353(a);

(3) place at all entrances to the permit area from public roads or highways conspicuous signs which state "Warning -- Explosives in Use", which clearly explain the blast warning and all clear signals that are in use and which explain the marking of blast areas and charged holes within the permit area.

(g) Topsoil Markers. Where topsoil or other vegetation-supporting material is segregated and stockpiled as required under §5311 (c), the stockpiled material shall be clearly marked.

§5303. Casing and Sealing of Drilled Holes: General Requirements

Each exploration hole, other drill or borehole, well or other exposed underground opening shall be cased, sealed or otherwise managed, under the direction of a qualified Registered Professional Geologist or Registered Professional Engineer and as required by the Department, to prevent acid or other toxic drainage from entering the ground water or surface water, to minimize disturbance to the prevailing hydrologic balance and to ensure the safety of people, livestock, fish and wildlife, and machinery in the permit and adjacent area. If these openings are uncovered or exposed by surface mining activities within the permit area, they shall be permanently closed, unless approved for water monitoring, or otherwise managed in a manner approved by the Department. Use of a drilled hole, borehole or monitoring well as a water well must meet the provisions of §§5313, 5329, and 5333(a). This Section does not apply to holes solely drilled and used for blasting.

§5305. Casing and Sealing of Drilled Holes: Temporary

Each exploration hole, other drill or borehole, well or other exposed underground opening which has been identified in the approved permit application for use to return coal processing waste or water to underground workings, or to be used to monitor ground-water conditions, shall be temporarily sealed before use and protected during use by barricades, fences or other protective devices under the direction of a qualified Registered Professional Geologist or Registered Professional Engineer and as approved by the Department. These devices shall be periodically inspected and maintained in good operating condition by the person who conducts the surface mining activities.

§5307. Casing and Sealing of Drilled Holes: Permanent

When no longer needed for monitoring or other use approved by the Department upon a finding of no adverse environmental or health and safety effect, or unless approved for transfer as a water well under §5335, each exploration hole, other drill or borehole, well or other exposed underground opening shall be capped, sealed, backfilled or otherwise properly managed, under the direction of a qualified Registered Professional Geologist or Registered Professional Engineer and as required by the Department, under §5303 and consistent with 30 CFR 75.1711. Permanent closure measures shall be designed to prevent access to the mine workings by people, livestock, fish and wildlife, and machinery, and to keep acid or other toxic drainage from entering the ground water or surface water.

§5309. Topsoil: General Requirements

(a) Before disturbance of an area, topsoil and subsoils to be saved under §5311 shall be separately removed and segregated from other material.

(b) After removal, topsoil shall either be immediately redistributed as required under §5311 or stockpiled pending redistribution as required under §5311.

§5311. Topsoil and subsoil.

(a) Removal.

(1) (A) All topsoil shall be removed as a separate layer from the area to be disturbed, and segregated.

(B) Where the topsoil is of insufficient quantity or poor quality for sustaining vegetation, the materials approved by the Department in accordance with §5311 (b) of this section shall be removed as a separate layer from the area to be disturbed, and segregated.

(2) If topsoil is less than 6 inches thick, the operator may remove the topsoil and the unconsolidated materials immediately below the topsoil and treat the mixture as topsoil.

(3) The Department may choose not to require the removal of topsoil for minor disturbances which:

(A) Occur at the site of small structures, such as power poles, signs, or fence lines; or

(B) Will not destroy the existing vegetation and will not cause erosion.

(4) Timing. All material to be removed under this section shall be removed after the vegetative cover that would interfere with its salvage is cleared from the area to be disturbed, but before any drilling, blasting, mining, or other surface disturbance takes place.

(b) Substitutes and supplements. Selected overburden materials may be substituted for, or used as a supplement to topsoil if the operator demonstrates to the Department that the resulting soil medium is equal to, or more suitable for sustaining vegetation than, the existing topsoil, and the resulting soil medium is the best available in the permit area to support revegetation.

(c) Storage.

(1) Materials removed under §5311(a) of this section shall be segregated and stockpiled when it is impractical to redistribute such materials promptly on regraded areas.

(2) Stockpiled materials shall:

(A) Be selectively placed on a stable site within the permit area;

(B) Be protected from contaminants and unnecessary compaction that would interfere with revegetation.

(C) Be protected from wind and water erosion through prompt establishment and maintenance of an effective, quick growing vegetative cover or through other measures approved by the Department; and

(D) Not be moved until required for redistribution unless approved by the Department.

(3) Where long-term surface disturbances will result from facilities such as support facilities and preparation plants and where stockpiling of materials removed under §5311(a)(1) of this section would be detrimental to the quality or quantity of those materials, the Department may approve the temporary distribution of the soil materials so removed to an approved site within the permit area to enhance the current use of that site until needed for later reclamation, provided that -

(A) Such action will not permanently diminish the capability of the topsoil of the host site; and

(B) The material will be retained in a condition more suitable for redistribution than if stockpiled.

(d) Redistribution.

(1) Topsoil materials removed under §5311(a) of this section shall be redistributed in a manner that:

(A) Achieves an approximately uniform, stable thickness consistent with the approved postmining land use, contours, and surface-water drainage systems;

(B) Prevents excess compaction of the materials; and

(C) Protects the materials from wind and water erosion before and after seeding and planting.

(2) Before redistribution of the material removed under §5311(a) of this section the regraded land shall be treated if necessary to reduce potential slippage of the redistributed material and to promote root penetration. If no harm will be caused to the redistributed material and reestablished vegetation, such treatment may be conducted after such material is replaced.

(3) The Department may choose not to require the redistribution of topsoil or topsoil substitutes on the approved postmining embankments of permanent impoundments or of roads if it determines that:

(A) Placement of topsoil or topsoil substitutes on such embankments is inconsistent with the requirement to use the best technology currently available to prevent sedimentation, and

(B) Such embankments will be otherwise stabilized.

(4) Nutrients and soil amendments. Nutrients and soil amendments shall be applied to the initially redistributed material when necessary to establish the vegetative cover.

(e) Subsoil segregation. The Department may require that the B horizon, C horizon, or other underlying strata, or portions thereof, be removed and segregated, stockpiled, and redistributed as subsoil in accordance with the requirements of §§5311(c) and (d) of this section if it finds that such subsoil layers are necessary to comply with the revegetation requirements of §§5397-53103, and 5507.

§5313. Hydrologic Balance: General Requirements

(a) Surface mining activities shall be planned and conducted to minimize disturbance of the hydrologic balance within the permit and adjacent areas and to prevent material damage to the hydrologic balance outside the permit area, to assure the protection or replacement of water rights, and to support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of these regulations. The Permit Board may require additional preventative, remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Mining and reclamation practices that minimize water pollution and changes in flow shall be used in preference to water treatment.

(b) Changes in water quality and quantity, in the depth to ground water, and in the location of surface-water drainage channels shall be minimized so that the approved post-mining land use of the permit area is not adversely affected.

(c) Operations shall be conducted to minimize water pollution and, where necessary, treatment methods shall be used to control water pollution. Water pollution control methods required

by the Permit Board shall be recommended by the Office of Geology in consultation with the Office of Pollution Control. The person who conducts surface mining activities shall operate and maintain the necessary water treatment facilities for as long as treatment is required under this Chapter.

§5315. Hydrologic Balance: Water Quality Standards and Effluent Limitations

Discharges of water from areas disturbed by surface mining activities shall be made in compliance with all applicable state and federal water quality laws and regulations and with the effluent limitations for coal mining promulgated by the U.S. Environmental Protection Agency set forth in 40 CFR Part 434.

§5317. Hydrologic Balance: Diversions

(a) General Requirements

(1) With the approval of the Permit Board, any flow from mined areas abandoned before May 3, 1978, and any flow from undisturbed areas or reclaimed areas, after meeting the criteria of §5321 for siltation structure removal, may be diverted from disturbed areas by means of temporary or permanent diversions. All diversions shall be designed to minimize adverse impacts to the hydrologic balance within the permit and adjacent areas, to prevent material damage outside the permit area and to assure the safety of the public. Diversions shall not be used to divert water into underground mines without approval of the Permit Board under §5339.

(2) The diversion and its appurtenant structures shall be designed, located, constructed, maintained and used to:

(A) be stable;

(B) provide protection against flooding and resultant damage to life and property;

(C) prevent, to the extent possible using the best technology currently available, additional contributions of suspended solids to streamflow outside the permit area; and

(D) comply with all applicable local, state and federal laws and regulations.

(3) Temporary diversions shall be removed promptly when no longer needed to achieve the purpose for which they were authorized. The land disturbed by the removal process shall be restored in accordance with this Chapter. Before diversions are removed, downstream water-treatment facilities previously protected by the diversion shall be modified or removed, as necessary, to prevent overtopping or failure of the facilities. This requirement shall not relieve the operator from maintaining water-

treatment facilities as otherwise required. A permanent diversion or a stream channel reclaimed after the removal of a temporary diversion shall be designed and constructed so as to restore or approximate the premining characteristics of the original stream channel including the natural riparian vegetation to promote the recovery and the enhancement of the aquatic habitat.

(4) The Department may specify design criteria for diversions to meet the requirements of this Section.

(b) Diversion of Perennial and Intermittent Streams

(1) Diversion of perennial and intermittent streams within the permit area may be approved by the Permit Board after making the finding relating to stream buffer zones that the diversion will not adversely affect the water quantity and quality and related environmental resources of the stream.

(2) The design capacity of channels for temporary and permanent stream channel diversions shall be at least equal to the capacity of the unmodified stream channel immediately upstream and downstream from the diversion.

(3) The requirements of §5317(a)(2)(b) shall be met when the temporary and permanent diversions for perennial and intermittent streams are designed so that the combination of channel, bank and floodplain configuration is adequate to pass safely the peak runoff of a 10-year, six-hour precipitation event for a temporary diversion and a 100-year, six-hour precipitation event for a permanent diversion.

(4) The design and construction of all stream channel diversions of perennial and intermittent streams shall be certified by a qualified registered professional engineer as meeting the performance standards of this Chapter and any design criteria set by the Department.

(c) Diversion of Miscellaneous Flows

(1) Miscellaneous flows, which consist of all flows except for perennial and intermittent streams, may be diverted away from disturbed areas if required or approved by the Permit Board. Miscellaneous flows shall include ground-water discharges and ephemeral streams.

(2) The design, location, construction, maintenance and removal of diversions of miscellaneous flows shall meet all of the performance standards set forth in §5317(a).

(3) The requirements of §5317(a)(2)(B) shall be met when the temporary and permanent diversions for miscellaneous flows are designed so that the combination of channel, bank and floodplain configuration is adequate to pass safely the peak runoff of a two-year, six-hour precipitation event for a temporary diversion and a 10-year, six-hour precipitation event for a permanent diversion.

(4) The design and construction of all stream channel diversions of miscellaneous flows shall be certified by a qualified registered professional engineer as meeting the performance standards of this Chapter and any design criteria set by the Department.

§5319. Hydrologic Balance: Sediment Control Measures

(a) Appropriate sediment control measures shall be designed, constructed and maintained using the best technology currently available to:

(1) prevent, to the extent possible, additional contributions of sediment to streamflow or to runoff outside the permit area;

(2) meet the more stringent of applicable state or federal effluent limitations;

(3) minimize erosion to the extent possible.

(b) Sediment control measures include practices carried out within and adjacent to the disturbed area. The sedimentation storage capacity of practices in and downstream from the disturbed area shall reflect the degree to which successful mining and reclamation techniques are applied to reduce erosion and control sediment. Sediment control measures consist of the utilization of proper mining and reclamation methods and sediment control practices, singly or in combination. Sediment control methods include but are not limited to:

(1) disturbing the smallest practicable area at any one time during the mining operation through progressive backfilling, grading, and prompt revegetation as required in §§5389-53103, and 5507;

(2) stabilizing the backfill material to promote a reduction in the rate and volume of runoff, in accordance with the requirements of §§5389-53103, and 5507;

(3) retaining sediment within disturbed areas;

(4) diverting runoff away from disturbed areas;

(5) diverting runoff using protected channels or pipes through disturbed areas so as to not cause additional erosion;

(6) using straw dikes, riprap, check dams, mulches, vegetative sediment filters, dugout ponds and other measures that reduce overland flow velocity, reduce runoff volume or trap sediment;

(7) treating with chemicals.

§5321. Hydrologic Balance: Siltation Structures

(a) Definitions. For the purposes of this Section only:

Disturbed Area–shall not include those areas:

(1) in which the only surface mining activities include diversion ditches, siltation structures or roads that are designed, constructed and maintained in accordance with this Chapter; and

(2) for which the upstream area is not otherwise disturbed by the operator.

(b) General Requirements

(1) Additional contributions of suspended solids sediment to streamflow or runoff outside the permit area shall be prevented to the extent possible using the best technology currently available.

(2) Siltation structures for an area shall be constructed before beginning any surface mining activities in that area and, upon construction, shall be certified by a qualified registered professional engineer to be constructed as designed and as approved in the reclamation plan.

(3) Any siltation structure which impounds water shall be designed, constructed, and maintained in accordance with §5327.

(4) Siltation structures shall be maintained until removal is authorized by the Permit Board and the disturbed area has been stabilized and revegetated. In no case shall the structure be removed sooner than two years after the last augmented seeding.

(5) When a siltation structure is removed, the land on which the siltation structure was located shall be regraded and revegetated in accordance with the reclamation plan and §§5397-53103, and 5507. Sedimentation ponds approved by the Permit Board for retention as permanent impoundments may be exempted from this requirement.

(c) Sedimentation Ponds

(1) When used, sedimentation ponds shall:

(A) be used individually or in series;

(B) be located as near as possible to the disturbed area and out of perennial streams unless approved by the Permit Board; and

(C) be designed, constructed and maintained to:

(i) provide adequate sediment storage volume;

(ii) provide adequate detention time to allow the effluent from the ponds to meet state and federal effluent limitations;

(iii) contain or treat the 10-year, 24-hour precipitation event ("design event") unless a lesser design event is approved by the Permit Board based on terrain, climate, other site-specific conditions, and on a demonstration by the operator that the effluent limitations of §5315 will be met;

(iv) provide a nonclogging dewatering device adequate to maintain the detention time required under §5321(c)(1)(C)(ii);

(v) minimize, to the extent possible, short circuiting;

(vi) provide periodic sediment removal sufficient to maintain adequate volume for the design event;

(vii) ensure against excessive settlement;

(viii) be free of sod, large roots, frozen soil, and acid- or toxic-forming coal-processing waste; and

(ix) be compacted properly.

(2) A sedimentation pond shall include either a combination of principal and emergency spillways or single spillway configured as specified in §5327.

(d) Other Treatment Facilities

(1) Other treatment facilities shall be designed to treat the 10-year, 24-hour precipitation event unless a lesser design event is approved by the Permit Board based on terrain, climate, other site-specific conditions, and a demonstration by the operator that the effluent limitations of §5315 will be met.

(2) Other treatment facilities shall be designed in accordance with the applicable requirements of §5321.

(e) Exemptions. Exemptions to the requirements of this Section may be granted by the Permit Board if:

(1) the disturbed drainage area within the total disturbed area is small; and

(2) the operator demonstrates that siltation structures and alternate sediment control measures are not necessary for drainage from the disturbed area to meet the effluent limitations under §5315 and the applicable state and federal water quality standards for the receiving waters.

§5323. Hydrologic Balance: Discharge Structures

Discharge from sedimentation ponds, permanent and temporary impoundments, coal processing waste dams and embankments, and diversions shall be controlled by energy dissipators, riprap channels and other devices, where necessary, to reduce erosion, to prevent deepening or enlargement of stream channels and to minimize disturbance of the hydrologic balance. Discharge structures shall be designed according to standard engineering-design procedures.

§5325. Hydrologic Balance: Acid-Forming and Toxic-Forming Materials

Drainage from acid-forming and toxic-forming materials into ground water and surface water shall be avoided by:

(a) identifying, burying and treating, where necessary, materials which, in the judgment of the Department, may be detrimental to vegetation or to public health and safety or may adversely affect water quality if not treated or buried;

(b) preventing water from coming into contact with acid-forming and toxic-forming materials in accordance with §53-9-45 and §5391(f), and other measures as required by the Department;

(c) burying or otherwise treating all acid-forming or toxic-forming materials within 30 days after it is first exposed on the mine site, or within a lesser period required by the Department. Temporary storage of the materials may be approved by the Department upon a finding that burial or treatment within 30 days is not feasible and will not result in any material risk or water pollution or other environmental damage. Storage shall be limited to the period until burial or treatment first becomes feasible. Acid-forming or toxic-forming materials to be stored shall be placed on impermeable material and protected from erosion and contact with surface water.

§5327. Hydrologic Balance: Impoundments

(a) General Requirements. The requirements of this Subsection apply to both temporary and permanent impoundments.

(1) Impoundments meeting the Class B or C criteria for dams in the U.S. Department of Agriculture, Soil Conservation Service Technical Release No. 60 (210-VI-TR60, Oct. 1985), "Earth Dams and Reservoirs," 1985 shall comply with "Minimum Emergency Spillway Hydrologic Criteria" table in TR-60 and the requirements of this section. The technical release is hereby incorporated by reference. Copies may be obtained from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161, order No. PB 87-157509/AS. Copies can be inspected at the Office of Surface Mining Reclamation and Enforcement, 1951 Constitution Avenue, N.W., Washington, DC, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(2) Impoundments meeting the criteria of 30 CFR 77.216(a) shall comply with the requirements of 30 CFR 77.216, §53-9-45, and this Section.

(3) Design Certification. The design of impoundments shall be certified in accordance with §2725(a) as designed to meet the requirements of this Chapter using current prudent engineering practices and any design criteria established by the Department. The qualified registered professional engineer shall be experienced in the design and construction of impoundments.

(4) Stability.

(A) Impoundments meeting the Class B or C criteria for dams in TR-60, or the size or other criteria of 30 CFR 77.216(a) shall have a minimum static safety factor of 1.5 for a normal pool with steady state seepage saturation conditions, and a seismic safety factor of at least 1.2.

(B) Impoundments not included in §5327(a)(4)(A), except for a coal mine waste impounding structure, shall have a minimum static safety factor of 1.3 for a normal pool with steady state seepage saturation conditions.

(5) Freeboard. Impoundments shall have adequate freeboard to resist overtopping by waves and by sudden increases in storage volume. Impoundments meeting the Class B or C criteria for dams in TR-60 shall comply with the freeboard hydrograph criteria in the "Minimum Emergency Spillway Hydrologic Criteria" table in TR-60.

(6) Foundation

(A) Foundation and abutments for the impounding structure shall be designed to be stable under all phases of construction and operation of the impoundment. For an impoundment meeting the Class B or C criteria for dams in TR-60, or the size or other criteria of 30 CFR 77.216(a), sufficient foundation investigations and laboratory testing shall be performed in order to determine the design requirements for foundation stability.

(B) All vegetative and organic materials shall be removed and foundations excavated and prepared to resist failure. Cutoff trenches shall be installed if necessary to ensure stability.

(7) Slope protection shall be provided to protect against surface erosion at the site and to protect against sudden drawdown.

(8) Faces of embankments and surrounding areas shall be vegetated, except that faces where water is impounded may be riprapped or otherwise stabilized in accordance with accepted design practices.

(9) Spillways. An impoundment shall include either a combination of principal and emergency spillways or a single spillway configured as specified in §5327(a)(9)(A), designed and constructed to safely pass the applicable design precipitation event specified in §5327(a)(9)(B), except as set forth in §5327(c)(2).

(A) The Permit Board may approve a single open-channel spillway that is:

(i) Of nonerodible construction and designed to carry sustained flows; or

(ii) Earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected.

(B) Except as specified in §5327(c)(2), the required design precipitation event for an impoundment meeting the spillway requirements of §5327(a)(9) is:

(i) For an impoundment meeting the Class B or C criteria for dams in TR-60, the emergency spillway hydrograph criteria in the "Minimum Emergency Spillway Hydrologic Criteria" table in TR-60, or greater event as specified by the Permit Board.

(ii) For an impoundment meeting or exceeding the size or other criteria of 30 CFR 77.216(a), a 100-year 6-hour event, or greater event as specified by the Permit Board.

(iii) For an impoundment not included in §5327(a)(9)(B)(i) and (ii), a 25-year 6-hour or greater event as specified by the Permit Board.

(10) The vertical portion of any remaining highwall shall be located far enough below the low-water line along the full extent of the highwall to provide adequate safety and access for the proposed water users.

(11) Inspections. A qualified registered professional engineer, shall inspect the impoundment. The registered professional engineer shall be experienced in the construction of impoundments.

(A) Inspections shall be made regularly during construction, upon completion of construction, and at least yearly until removal of the structure or release of the performance bond.

(B) The qualified registered professional engineer, upon completion of construction, shall promptly provide to the Department a certified report that the impoundment has been constructed as designed and in accordance with the approved plan and these regulations. In addition, the qualified registered professional engineer shall, after each annual inspection, promptly provide to the Department a certified report that the impoundment has been maintained in accordance with the approved plan and these regulations. Each such report shall include discussion of any appearances of instability, structural weakness or other hazardous conditions, depth and elevation of any impounded waters, existing storage capacity, any existing or required monitoring procedures and instrumentation, and any other aspects of the

structure affecting stability.

(C) A copy of the report shall be retained at or near the minesite.

(12) Impoundments meeting the Class B or C criteria for dams in TR-60, or the size or other criteria of 30 CFR 77.216 must be examined in accordance with 30 CFR 77.216-3. Impoundments not meeting the Class B or C criteria for dams in TR-60, or subject to 30 CFR 77.216, shall be examined at least quarterly. A qualified person designated by the operator shall examine impoundments for the appearance of structural weakness and other hazardous conditions.

(13) Emergency Procedures. If any examination or inspection discloses that a potential hazard exists, the person who examined the impoundment shall promptly inform the Department of the finding and of the emergency procedures formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, the Department shall be notified immediately. The Department shall then notify the appropriate agencies that other emergency procedures are required to protect the public.

(b) Permanent Impoundments. A permanent impoundment of water may be created, if authorized by the Permit Board in the approved permit, based upon the following demonstration:

(1) the size and configuration of such impoundment will be adequate for its intended purposes;

(2) the quality of impounded water will be suitable on a permanent basis for its intended use and, after reclamation, will meet applicable state and federal water quality standards, and discharges from the impoundment will meet applicable effluent limitations and will not degrade the quality of receiving water below applicable state and federal water quality standards;

(3) the water level will be sufficiently stable and be capable of supporting the intended use;

(4) final grading will provide for adequate safety and access for proposed water users;

(5) the impoundment will not result in the diminution of the quality and quantity of water utilized by adjacent or surrounding landowners for agricultural, industrial, recreational or domestic uses;

(6) the impoundment will be suitable for the approved post-mining land use;

(c) Temporary Impoundments

(1) The Permit Board may authorize the construction of temporary impoundments as part

of a surface coal mining operation.

(2) In lieu of meeting the requirements in §5327(a)(9), the Permit Board may approve an impoundment that relies primarily on storage to control the runoff from the design precipitation event when it is demonstrated by the operator and certified by a qualified registered professional engineer that the impoundment will safely control the design precipitation event, the water from which shall be safely removed in accordance with current, prudent, engineering practices. Such an impoundment shall be located where failure would not be expected to cause loss of life or serious property damage, except where:

(A) Impoundments meeting the Class B or C criteria for dams in TR-60, or the size or other criteria of 30 CFR 77.216(a) shall be designed to control the precipitation of the probable maximum precipitation of a 6-hour event, or greater event specified by the Department.

(B) Impoundments not included in §5327(c)(2)(A) shall be designed to control the precipitation of the 100-year 6-hour event, or greater event specified by the Department.

§5329. Hydrologic Balance: Ground-Water Protection

In order to protect the hydrologic balance, surface mining activities shall be conducted according to the plan approved under §2717 and the following:

(a) Ground-water quality shall be protected by handling earth materials and runoff in a manner that minimizes acidic, toxic, or other harmful infiltration to ground-water systems and by managing excavations and other disturbances to prevent or control the discharge of pollutants into the ground-water.

(b) Ground-water quantity shall be protected by handling earth materials and runoff in a manner that will restore the approximate premining recharge capacity of the reclaimed area as a whole, excluding coal mine waste disposal areas and fills, so as to allow the movement of water to the ground-water system.

§5331. Hydrologic Balance: Surface-Water Protection

In order to protect the hydrologic balance, surface mining activities shall be conducted according to the plan approved under §2717 and the following:

(a) Surface-water quality shall be protected by handling earth materials, ground-water discharges, and runoff in a manner that minimizes the formation of acidic or toxic drainage; prevents, to the extent possible using the best technology currently available, additional contribution of suspended solids to streamflow outside the permit area; and otherwise prevents water pollution. If drainage control, restabilization and revegetation of disturbed areas, diversion of runoff, mulching, or

other reclamation and remedial practices are not adequate to meet the requirements of this Section and §5315, the operator shall use and maintain the necessary water-treatment facilities or water quality controls.

(b) Surface-water quality and flow rates shall be protected by handling earth materials and runoff in accordance with the steps outlined in the plan approved under §2717.

§5333. Hydrologic Balance: Surface- and Ground-Water Monitoring.

(a) Ground-Water Monitoring

(1) Ground-water monitoring shall be conducted according to the ground-water monitoring plan approved under §2719. The Permit Board may require additional monitoring when necessary.

(2) Ground-water monitoring data shall be submitted every 3 months to the Department or more frequently as prescribed by the Permit Board. Monitoring reports shall include analytical results from each sample taken during the reporting period. When the analysis of any ground-water sample indicates noncompliance with the permit conditions, the operator shall promptly notify the Department and immediately take the actions provided for in §§2717 and 3125.

(3) Ground-water monitoring shall proceed through mining and continue during reclamation until bond release. The Permit Board may revise or modify the monitoring requirements, including the parameters covered and the sampling frequency, if the operator demonstrates, using the monitoring data obtained under this Paragraph, that:

(A) the operator has minimized disturbance to the hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved post-mining land uses; and the water rights of other users have been protected or replaced; or

(B) monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under §2719.

(4) Equipment, structures and other devices used in conjunction with monitoring the quality and quantity of ground water onsite and offsite shall be properly installed, maintained and operated and shall be removed by the operator when no longer needed.

(b) Surface-Water Monitoring

(1) Surface-water monitoring shall be conducted according to the surface-water

monitoring plan approved under §2721. The Permit Board may require additional monitoring when necessary.

(2) Surface-water monitoring data shall be submitted every 3 months to the Department or more frequently as prescribed by the Permit Board under § 53-9-51. Monitoring reports shall include analytical results from each sample taken during the reporting period. When the analysis of any surface-water sample indicates noncompliance with the permit conditions, the operator shall promptly notify the Department and immediately take the actions provided for in §§2717 and 3125. The reporting requirements of this Paragraph do not exempt the operator from meeting any National Pollutant Discharge Elimination System (NPDES) reporting requirements.

(3) Surface-water monitoring shall proceed through mining and continue during reclamation until bond release. The office may modify the monitoring requirements, except those required by the NPDES permitting authority, including the parameters covered and sampling frequency if the operator demonstrates, using the monitoring data obtained under this Paragraph, that:

(A) The operation has minimized disturbance to the hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses, and the water rights of other users have been protected or replaced, or

(B) Monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan approved under Chapter 25 of these regulations.

(4) Equipment, structures, and other devices used in conjunction with monitoring the quality and quantity of surface water onsite and offsite shall be properly installed, maintained, and operated and shall be removed by the operator when no longer needed.

§5335. Hydrologic Balance: Transfer of Wells

(a) An exploratory or monitoring well may only be transferred by the person who conducts surface mining activities for further use as a water well with the prior approval of the Permit Board. That person and the surface owner of the lands where the well is located shall jointly submit a written request to the Office of Land and Water Resources of the Department for processing and presentation to the Permit Board.

(b) Upon an approved transfer of a well, the transferee shall:

(1) assume primary liability for damages to persons or property from the well;

(2) plug the well when necessary, but in no case later than abandonment of the well; and

(3) assume primary responsibility for compliance with §§5303-5307 with respect to the well.

(c) Upon an approved transfer of a well, the transferor shall be secondarily liable for the transferee's obligations under §5335(b) until release of the bond or other collateral required by Subpart IV for the area in which the well is located.

§5337. Hydrologic Balance: Water Rights and Replacement

Any person who conducts surface mining activities shall replace the water supply of an owner of interest in real property who obtains all or part of his or her supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source, where the water supply has been affected by contamination, diminution or interruption proximately resulting from the surface mining activities. Baseline hydrologic information required in Chapter 25 shall be used to determine the extent of the impact of mining upon ground water and surface water.

§5339. Hydrologic Balance: Discharges into an Underground Mine

(a) Discharges into an underground mine.

(1) Discharges into an underground mine are prohibited, unless specifically approved by the Permit Board after a demonstration that the discharge will:

(A) Minimize disturbance to the hydrologic balance on the permit area, prevent material damage outside the permit area and otherwise eliminate public hazards resulting from surface mining activities;

(B) Not result in a violation of applicable water quality standards or effluent limitations;

(C) Be at a known rate and quality which shall meet the effluent limitations of §5315 for pH and total suspended solids, except that the pH and total suspended-solids limitations may be exceeded, if approved by the Permit Board; and

(D) Meet with the approval of the Mine Safety and Health Administration.

(2) Discharges shall be limited to the following:

(A) Water;

(B) Coal processing waste;

(C) Fly ash from a coal-fired facility;

(D) Sludge from an acid-mine-drainage treatment facility;

(E) Flue-gas desulfurization sludge;

(F) Inert materials used for stabilizing underground mines; and

(G) Underground mine development wastes.

§5341. Hydrologic Balance: Post-mining Rehabilitation of Sedimentation Ponds, Diversions, Impoundments and Treatment Facilities

Before abandoning a permit area or seeking bond release, the operator shall ensure that all temporary structures are removed and reclaimed, and that all permanent sedimentation ponds, diversions, impoundments and treatment facilities meet the requirements of this Chapter for permanent structures and impoundments. The operator shall renovate such structures if necessary to meet the requirements of this Chapter and to conform to the approved reclamation plan.

§5343. Hydrologic Balance: Stream Buffer Zones

(a) No land within 150 feet of a perennial stream or 100 feet of an intermittent stream shall be disturbed by surface mining activities, unless the Permit Board specifically authorizes surface mining activities closer to, or through, such a stream. The Permit Board may authorize such activities only upon finding:

(1) surface mining activities will not cause or contribute to the violation of applicable state or federal water quality standards, and will not adversely affect the water quantity and quality or other environmental resources of the stream; or

(2) if there will be a temporary or permanent stream-channel diversion, it will comply with §5317.

(b) The area not to be disturbed shall be designated as a buffer zone and the operator shall mark it as specified in §5301.

§5345. Coal Recovery

Surface mining activities shall be conducted so as to maximize the utilization and conservation of the coal, while utilizing the best appropriate technology currently available to maintain environmental integrity, so that reaffecting the land in the future through surface coal mining operations is minimized.

§5347. Use of Explosives: General Requirements

(a) Each operator shall comply with all applicable state and federal laws and regulations in the use of explosives.

(b) Blasts that use more than five pounds of explosive or blasting agent shall be conducted according to the schedule required under §5351.

(c) Blasters

(1) All blasting operations in the state shall be conducted under the direction of a certified blaster and in accordance with Policy Statement No. PS-1 entitled "Blasters Certification Requirements, Surface Coal Mining and Reclamation Operations". All such blasting operations in the state shall be conducted by competent, experienced persons who understand the hazards involved.

(2) Certificates of blaster certification shall be carried by blasters or shall be on file at the permit area during blasting operations.

(3) A blaster and at least one other person shall be present at the firing of a blast.

(4) Any blaster who is responsible for conducting blasting operations at a blasting site shall:

(A) be familiar with the blasting plan and site-specific performance standards; and

(B) give direction and on-the-job training to persons who are not certified and who are assigned to the blasting crew or assist in the use of explosives.

(d) Blast Design

(1) An anticipated blast design shall be submitted if blasting operations will be conducted within:

(A) 1,000 feet of any building used as a dwelling, public building, school, church, community or institutional building outside the permit area; or

(B) 500 feet of an active or abandoned underground mine.

(2) The blast design may be presented as part of a permit application or at a time, before the blast, approved by the Department.

(3) The blast design shall contain sketches of the drill patterns, delay periods and decking and shall indicate the type and amount of explosives to be used, critical dimensions, and the location and general description of structures to be protected, as well as a discussion of design factors to be used, which protect the public and meet the applicable airblast, flyrock and ground-vibration standards in §5355.

(4) The blast design shall be prepared and signed by a certified blaster.

(5) The Department may require changes to the design submitted.

(6) No blasting shall occur until the blast design is approved in writing by the

Department. No blast design shall be approved by the Department unless it fulfills the requirements of § 53-9-25 and the blast plan is previously approved by the Permit Board.

§5349. Use of Explosives: Pre-blasting Survey

(a) At least 30 days before initiation of blasting the operator shall notify, in writing, all residents or owners of dwellings or other structures located within one-half mile of the blast area how to request a preblasting survey.

(b) A resident or owner of a dwelling or structure within one-half mile of any part of the permit area may request a preblasting survey. This request shall be made, in writing, directly to the operator or to the Department, who shall promptly notify the operator. The operator shall promptly conduct a preblasting survey of the dwelling or structure and promptly prepare a written report of the survey. An updated survey of any additions, modifications or renovations shall be performed by the operator if requested by the resident or owner.

(c) The operator shall determine the condition of the dwelling or structure and shall document any preblasting damage and other physical factors that could reasonably be affected by the blasting. Structures such as pipelines, cables, transmission lines, and cisterns, wells and other water systems warrant special attention. However, the assessment of these structures may be limited to surface conditions and other readily available data.

(d) The written report of the survey shall be signed by the person who conducted the survey. Copies of the report shall be promptly provided to the Department and to the person requesting the survey. If the person requesting the survey disagrees with the contents and/or recommendations contained therein, he or she may submit to both the operator and the Department a detailed description of the specific areas of disagreement.

(e) Any surveys requested more than 10 days before the planned initiation of blasting shall be completed by the operator before the initiation of blasting.

§5351. Use of Explosives: Blasting Schedule

(a) General Requirements

(1) The operator shall conduct blasting operations at times approved by the Department and announced in the blasting schedule. The Department may limit the area covered, timing, and sequence of blasting as listed in the schedule, if such limitations are necessary and reasonable in order to protect the public health and safety or welfare.

(2) All blasting shall be conducted between sunrise and sunset, unless nighttime blasting is approved by the Department based upon a showing by the operator that the public will be protected from adverse noise and other impacts. The Department may specify more restrictive time periods for blasting.

(3) Unscheduled blasts may be conducted only where public or operator health and safety so require and for emergency blasting actions. When an operator conducts an unscheduled blast, the operator, using audible signals, shall notify residents within one-half mile of the blasting site and document the reason for the unscheduled blast in accordance with §5357(p).

(b) Blasting Schedule Publication and Distribution

(1) The operator shall publish the blasting schedule in a newspaper of general circulation in the locality of the blasting site at least 10 days, but not more than 30 days, before beginning a blasting program.

(2) The operator shall distribute copies of the schedule to local governments and public utilities and to each local residence within one-half mile of the proposed blasting site described in the schedule.

(3) The operator shall republish and redistribute the schedule at least every 12 months and revise and republish the schedule at least 10 days, but not more than 30 days, before blasting whenever the area covered by the schedule changes or actual time periods for blasting significantly differ from the prior announcement.

(c) Blasting Schedule Contents. The blasting schedule shall contain, at a minimum:

(1) name, address and telephone number of operator;

(2) identification of the specific areas in which blasting will take place;

(3) dates and time periods when explosives are to be detonated;

(4) methods to be used to control access to the blasting area; and

(5) type and patterns of audible warning and all-clear signals to be used before and after blasting.

§5353. Use of Explosives: Blasting Signs, Warnings and Access Control

(a) Blasting Signs. Blasting signs shall meet the specifications of §5301. The operator shall:

(1) conspicuously place signs reading "Blasting Area" along the edge of any blasting area that comes within 100 feet of any public road right-of-way, and at the point where any other road provides access to the blasting area; and

(2) at all entrances to the permit area from public roads or highways, place conspicuous signs which state "Warning! Explosives in Use", which clearly list and describe the meaning of the audible blast warning and all-clear signals that are in use, and which explain the marking of blasting areas and charged holes awaiting firing within the

permit area.

(b) Warnings. Warning and all-clear signals of different character or pattern that are audible within a range of one-half mile from the point of the blast shall be given. Each person within the permit area and each person who resides or regularly works within one-half mile of the permit area shall be notified of the meaning of the signals in the blasting schedule.

(c) Access Control. Access within the blasting area shall be controlled to prevent presence of livestock or unauthorized persons during blasting and until an authorized representative of the operator has reasonably determined that:

(1) no unusual hazards, such as imminent slides or undetonated charges, exist; and

(2) access to and travel within the blasting area can be safely resumed.

§5355. Use of Explosives: Control of Adverse Effects

(a) General Requirements. Blasting shall be conducted to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in the course, channel or availability of surface water or ground water outside the permit area.

(b) Airblast

(1) Limits

(A) Airblast shall not exceed the maximum limits listed below at the location of any dwelling, public building, school, church, community or institutional building outside the permit area, except as provided in §5355(e).

Lower Frequency Limit of Measuring System, in Hz (+/- 3 dB)	**Maximum Level (in dB)**
0.1 Hz or lower--flat response[1]	134 peak.
2 Hz or lower--flat response	133 peak.
6 Hz or lower--flat response	129 peak.
C-weighted--slow response n[1]	105 peak dBC.

[1]Only when approved by the Permit Board.

(B) If necessary to prevent damage, the Permit Board shall specify lower maximum allowable airblast levels than those of §5355(b)(1)(A) for use in the vicinity of a specific blasting operation.

(2) Monitoring

(A) The operator shall conduct periodic monitoring to ensure compliance with the airblast standards. The Permit Board may require airblast measurement of

any or all blasts and may specify the locations at which such measurements are taken.

(B) The measuring systems shall have an upper-end flat-frequency response of at least 200 Hz.

(c) Flyrock. Flyrock traveling in the air or along the ground shall not be cast from the blasting site:

(1) more than one-half the distance to the nearest dwelling or other occupied structure;

(2) beyond the area of control required under §5353(c); or

(3) beyond the permit boundary.

(d) Ground Vibration

(1) General. In all blasting operations, except as otherwise authorized in §5355(e), the maximum ground vibration shall not exceed the values approved in the blasting plan required under §2707. The maximum ground vibration for protected structures listed in §5355(d)(2)(A) shall be established in accordance with either the maximum peak-particle-velocity limits of §5355(d)(2), the scaled-distance equation of §5355(d)(3), the blasting-level chart of §5355(d)(4), or by the Permit Board under §5355(d)(5). All structures in the vicinity of the blasting area not listed in §5355(d)(2)(A), such as water towers, pipelines and other utilities, tunnels, dams, impoundments and underground mines, shall be protected from damage by establishment of a maximum allowable limit on the ground vibration, submitted by the operator in the blasting plan and approved by the Permit Board.

(2) Maximum Peak Particle Velocity

(A) The maximum ground vibration shall not exceed the following limits at the location of any dwelling, public building, school, church, community or institutional building outside the permit area:

Distance (D) from the Blasting Site, in Feet	**Maximum Allowable Peak Particle Velocity (V max) for Ground Vibration, in in/sec[1]**	**Scaled-Distance Factor to be Applied Without Seismic Monitoring[2]**
0 to 300	1.25	50
301 to 5,000	1.00	55
5,001 and beyond	0.75	65

[1] Ground vibration shall be measured as the particle velocity. Particle velocity shall be recorded in three mutually perpendicular directions. The maximum allowable peak particle velocity shall apply to each of the three measurements.

[2] Applicable to the scaled-distance equation of §5355(d)(3)(A).

(B) A seismographic record shall be provided for each blast.

(3) Scaled-Distance Equation

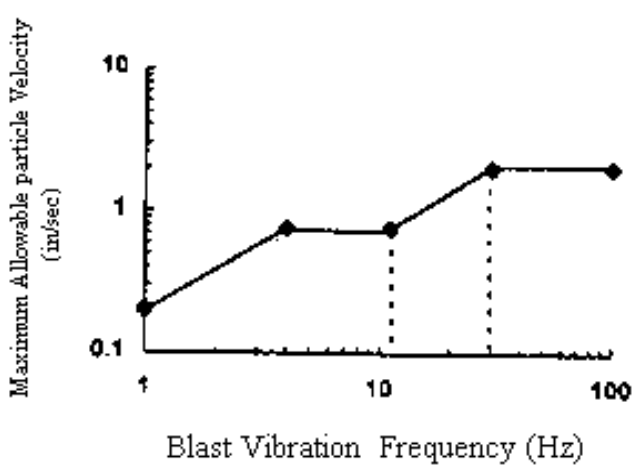
(A) An operator may use the scaled-distance equation, $W = (D/Ds)^2$, to determine the allowable charge weight of explosives to be detonated in any 8-millisecond period, without seismic monitoring; where W = the maximum weight of explosives, in pounds; D = the distance, in feet, from the blasting site to the nearest protected structure; and Ds = the scaled-distance factor, which may initially be approved by the Permit Board using the values for scaled-distance factor listed in §5355(d)(2)(A).

(B) The development of a modified scaled-distance factor may be authorized by the Permit Board on receipt of a written request by the operator, supported by seismographic records of blasting at the minesite. The modified scaled-distance factor shall be determined such that the particle velocity of the predicted ground vibration will not exceed the prescribed maximum allowable peak particle velocity of §5355(d)(2)(A), at a 95-percent confidence level.

(4) Blasting-Level Chart.

(A) An operator may use the ground-vibration limits in Figure 1 to determine the maximum allowable ground vibration.

Figure 1. Alternative blasting level criteria. (Source: Modified from figure B-1, Bureau of Mines R18507)



(B) If the Figure 1 limits are used, a seismographic record including both particle velocity and vibration-frequency levels shall be provided for each blast. The method for the analysis of the predominant frequency contained in the blasting records shall be approved by the Permit Board before application of this alternative blasting criterion.

(5) The maximum allowable ground vibration shall be reduced by the Permit Board beyond the limits otherwise provided by this Section, if determined necessary to provide damage protection.

(6) The Permit Board may require an operator to conduct seismic monitoring of any or all blasts or may specify the location at which the measurements are taken and the degree of detail necessary in the measurement.

(e) The maximum airblast and ground-vibration standards of §5355(b) and (d) shall not apply at the following locations:

(1) at structures owned by the permittee and not leased to another person; or

(2) at structures owned by the permittee and leased to another person, if a written waiver by the lessee is submitted to the Department before blasting.

§5357. Use of Explosives: Records of Blasting Operations

The operator shall retain a record of all blasts for at least three years. Upon request, copies of these records shall be made available to the Department and to the public for inspection. Such records shall contain the following data:

(a) name of the operator conducting the blast;

(b) location, date and time of the blast;

(c) name, signature and certification number of the blaster conducting the blast;

(d) identification, direction and distance, in feet, from the nearest blast hole to the nearest dwelling, public building, school, church, community or institutional building outside the permit area, except those described in §5355(e);

(e) weather conditions, including those which may cause possible adverse blasting effects;

(f) type of material blasted;

(g) sketches of the blast pattern including number of holes, burden, spacing, decks and delay pattern;

(h) diameter and depth of holes;

(I) types of explosives used;

(j) total weight of explosives used per hole;

(k) the maximum weight of explosives detonated in an 8-millisecond period;

(l) initiation system;

(m) type and length of stemming;

(n) mats or other protections used;

(o) seismographic and airblast records, if required, which shall include:

(1) type of instrument, sensitivity and calibration signal or certification of annual calibration;

(2) exact location of instrument and the date, time and distance from the blast;

(3) name of the person and firm taking the reading;

(4) name of the person and firm analyzing the seismographic record; and

(5) the vibration and/or airblast level recorded;

(p) reasons and conditions for each unscheduled blast.

§5359. Disposal of Excess Spoil: General Requirements

(a) General. Excess spoil shall be placed in designated disposal areas within the permit area, in a controlled manner to -

(1) Minimize the adverse effects of leachate and surface water runoff from the fill on surface and ground waters;

(2) Ensure mass stability and prevent mass movement during and after construction; and

(3) Ensure that the final fill is suitable for reclamation and revegetation compatible with the natural surroundings and the approved postmining land use.

(b) Design certification.

(1) The fill and appurtenant structures shall be designed using current, prudent engineering practices and shall meet any design criteria established by the

Department. A qualified registered professional engineer experienced in the design of the earth and rock fills shall certify the design of the file and appurtenant structures.

(2) The fill shall be designed to attain a minimum long-term static safety factor of 1.5. The foundation and abutments of the fill must be stable under all conditions of construction.

(c) Location. The disposal area shall be located on the most moderately sloping and naturally stable areas available, as approved by the Department, and shall be placed, where possible, upon or above a natural terrace, bench, or berm, if such placement provides additional stability and prevents mass movement.

(d) Foundation

(1) Sufficient foundation investigations, as well as any necessary laboratory testing of foundation material, shall be performed in order to determine the design requirements for foundation stability. The analyses of foundation conditions shall take into consideration the effect of underground mine workings, if any, upon the stability of the fill and appurtenant structures.

(2) Where the slope in the disposal area is in excess of 2.8h:1v (36 percent), or such lesser slope as may be designated by the Department based on local conditions, keyway cuts (excavations to stable bedrock) or rock toe buttresses shall be constructed to ensure stability of the fill. Where the toe of the spoil rests on a downslope, stability and analyses shall be performed in accordance with §2735 (c) to determine the size of rock toe buttresses and keyway cuts.

(e) Placement of Excess Spoil.

(1) All vegetative and organic materials shall be removed from the disposal area prior to placement of the excess spoil. Topsoil shall be removed, segregated and stored or redistributed in accordance with § 5311. If approved by the Department, organic material may be used as mulch or may be included in the topsoil to control erosion, promote growth of vegetation or increase the moisture retention of the soil.

(2) Excess spoil shall be transported and placed in a controlled manner in horizontal lifts not exceeding 4 feet in thickness; concurrently compacted as necessary to ensure mass stability and to prevent mass movement during and after construction; graded so that surface and subsurface drainage is compatible with the natural surroundings; and covered with topsoil or substitute material in accordance with §5311 of this chapter. The Department may approve a design which incorporates placement of excess spoil in horizontal lifts other than 4 feet in thickness when it is demonstrated by the operator and certified by a qualified registered professional engineer that the design will ensure the stability of the fill and will meet all other applicable requirements.

(3) The final configuration of the fill shall be suitable for the approved postmining land use. Terraces may be constructed on the outslope of the fill if required for stability, control of erosion, to conserve soil moisture, or to facilitate the approved postmining land use. The grade of the outslope between terrace benches shall not be steeper than 2h:1v (50 percent).

(4) No permanent impoundments are allowed on the completed fill. Small depressions may be allowed by the Department if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation; and if they are not incompatible with the stability of the fill.

(5) Excess spoil that is acidic- or toxic- forming or combustible shall be adequately covered with nonacidic, nontoxic and noncombustible material, or treated, to control the impact on surface and groundwater in accordance with §5325, to prevent sustained combustion, and to minimize adverse effects on plant growth and the approved postmining land use.

(f) Drainage control.

(1) If the disposal area contains springs, natural or manmade water courses, or wet weather seeps, the fill design shall include diversions and underdrains as necessary to control erosion, prevent water infiltration into the fill, and ensure stability.

(2) Diversions shall comply with the requirements of §5317.

(3) Underdrains shall consist of durable rock or pipe, be designed and constructed using current, prudent engineering practices and meet any design criteria established by the Department. The underdrain system shall be designed to carry the anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and springs in the foundation of the disposal area and shall be protected from piping and contamination by an adequate filter. Rock underdrains shall be constructed of durable, nonacid-, nontoxic-forming rock (e.g., natural sand and gravel, sandstone, limestone, or other durable rock) that does not slake in water or degrade to soil material, and which is free of coal, clay or other nondurable material. Perforated pipe underdrains shall be corrosion resistant and shall have characteristics consistent with the long-term life of the fill.

(g) Surface area stabilization. Slope protection shall be provided to minimize surface erosion at the site. All disturbed areas, including diversion channels that are not riprapped or otherwise protected, shall be revegetated upon completion of construction.

(h) Inspections. A qualified registered professional engineer, or other qualified professional specialist under the direction of the registered professional engineer, shall periodically inspect the fill during construction. The registered professional engineer or specialist shall be experienced in the construction of earth and rock fills.

(1) Such inspections shall be made at least quarterly throughout construction and during critical construction periods. Critical construction periods shall include at a minimum:

(A) Foundation preparation, including the removal of all organic material and topsoil;

(B) placement of underdrains and protective filter systems;

(C) installation of final surface drainage systems; and

(D) the final graded and revegetated fill. Regular inspections by the registered professional engineer or specialist shall also be conducted during placement and compaction of fill materials.

(2) The qualified registered professional engineer shall provide a certified report to the Department promptly after each inspection that the fill has been constructed and maintained as designed and in accordance with the approved plan and this chapter. The report shall include appearances of instability, structural weakness, and other hazardous conditions.

(3) (A) The certified report on the drainage system and protective filters shall include color photographs taken during and after construction, but before underdrains are covered with excess spoil. If the underdrain system is constructed in phases, each phase shall be certified separately.

(B) Where excess durable rock spoil is placed in single or multiple lifts such that the underdrain system is constructed simultaneously with excess spoil placement by the natural segregation of dumped materials, in accordance with §5363, color photographs shall be taken of the underdrain as the underdrain system is being formed.

(C) The photographs accompanying each certified report shall be taken in adequate size and number with enough terrain or other physical features of the site shown to provide a relative scale to the photographs and to specifically and clearly identify the site.

(4) A copy of each inspection report shall be retained at or near the mine site.

(A) Coal mine waste. Coal mine waste may be disposed of in excess spoil fills if approved by the Department and, if such waste is —

(i) Placed in accordance with §5371;

(ii) Nontoxic and nonacid forming; and

(iii) Of the proper characteristics to be consistent with the design stability of the fill.

(i) Underground disposal. Excess spoil may be disposed of in underground mine workings, but only in accordance with a plan approved by the Department and MSHA under 30 C.F.R. §784.25.

§5361. Disposal of Excess Spoil: Valley Fills/Head-of-Hollow Fills.

Valley fills and head-of-hollow fills shall meet the requirements of §5359 and the additional requirements of this section.

(a) Drainage control.

(1) The top surface of the completed fill shall be graded such that the final slope after settlement will be toward properly designed drainage channels. Uncontrolled surface drainage may not be directed over the outslope of the fill.

(2) Runoff from areas above the fill and runoff from the surface of the fill shall be diverted into stabilized diversion channels designed to meet the requirements of §5317 and, in addition, to safely pass the runoff from a 100-year, 6-hour precipitation event.

(b) Rock-core chimney drains. A rock-core chimney drain may be used in a head-of-hollow fill, instead of the underdrain and surface diversion system normally required, as long as the fill is not located in an area containing intermittent or perennial streams. A rock-core chimney drain may be used in a valley fill if the fill does not exceed 250,000 cubic yards of material and upstream drainage is diverted around the fill. The alternative rock-core chimney drain system shall be incorporated into the design and construction of the fill as follows:

(1) The fill shall have, along the vertical projection of the main buried stream channel or rill, a vertical core of durable rock at least 16 feet thick which shall extend from the toe of the fill to the head of the fill, and from the base of the fill to the surface of the fill. A system of lateral rock underdrains shall connect this rock core to each area of potential drainage or seepage in the disposal area. The underdrain system and rock core shall be designed to carry the anticipated seepage of water due to rainfall away from the excess spoil fill and seeps and springs in the foundation of the disposal area. Rocks used in the rock core and underdrains shall meet the requirements of §5359(f).

(2) A filter system to ensure the proper long-term functioning of the rock core shall be designed and constructed using current, prudent engineering practices.

(3) Grading may drain surface water away from the outslope of the fill and toward the rock core. In no case, however, may intermittent or perennial streams be diverted into the rock core. The maximum slope of the top of the fill shall be 33h:1v (3 percent). A drainage pocket may be maintained at the head of the fill during and after

construction, to intercept surface runoff and discharge the runoff through or over the rock drain, if stability of the fill is not impaired. In no case shall this pocket or sump have a potential capacity for impounding more than 10,000 cubic feet of water. Terraces on the fill shall be graded with a 3 to 5 percent grade toward the fill and a 1 percent slope toward the rock core.

§5363. Disposal of Excess Spoil: Durable Rock Fills

The Department may approve the alternative method of disposal of excess durable rock spoil by gravity placement in single or multiple lifts, provided the following conditions are met:

(a) Except as provided in this section, the requirements of §5359 are met.

(b) The excess spoil consists of at least 80 percent, by volume, durable, nonacid- and nontoxic-forming rock (e.g., sandstone or limestone) that does not slake in water and will not degrade to soil material. Where used, noncemented clay shale, clay spoil, soil or other nondurable excess spoil materials shall be mixed with excess durable rock spoil in a controlled manner such that no more than 20 percent of the fill volume, as determined by tests performed by a registered professional engineer and approved by the Department, is not durable rock.

(c) A qualified registered professional engineer certifies that the design will ensure the stability of the fill and meet all other applicable requirements.

(d) The fill is designed to attain a minimum long-term static safety factor of 1.5, and an earthquake safety factor of 1.1.

(e) The underdrain system may be constructed simultaneously with excess spoil placement by the natural segregation of dumped materials, provided the resulting underdrain system is capable of carrying anticipated seepage of water due to rainfall away from the excess spoil fill and from seeps and springs in the foundation of the disposal area and the other requirements for drainage control are met.

(f) Surface water runoff from areas adjacent to and above the fill is not allowed to flow onto the fill and is diverted into stabilized diversion channels designed to meet the requirements of §5317 and to safely pass the runoff from a 100-year, 6-hour precipitation event.

§5365 Disposal of excess spoil: Preexisting benches.

(a) The Permit Board may approve the disposal of excess spoil through placement on a preexisting bench if the affected portion of the preexisting bench is permitted and the standards set forth in §§ 5391(c), 5391(e) through 5391(h), and 5391 (j) and the requirements of this section are met.

(b) All vegetation and organic materials shall be removed from the affected portion of the preexisting bench prior to placement of the excess spoil. Any available topsoil on the bench shall be removed, stored and redistributed in accordance with §5311. Substitute or

supplemental materials may be used in accordance with §5311(b).

(c) The fill shall be designed and constructed using current, prudent engineering practices. The design will be certified by a registered professional engineer. The spoil shall be placed on the solid portion of the bench in a controlled manner and concurrently compacted as necessary to attain a long term static safety factor of 1.3 for all portions of the fill. Any spoil deposited on any fill portion of the bench will be treated as excess spoil fill under §5359.

(d) The preexisting bench shall be backfilled and graded to:

(1) Achieve the most moderate slope possible which does not exceed the angle of repose;

(2) Eliminate the highwall to the maximum extent technically practical;

(3) Minimize erosion and water pollution both on and off the site; and

(4) If the disposal area contains springs, natural or manmade water courses, or wet weather seeps, the fill design shall include diversions and underdrains as necessary to control erosion, prevent water infiltration into the fill, and ensure stability.

(e) All disturbed areas, including diversion channels that are not riprapped or otherwise protected, shall be revegetated upon completion of construction.

(f) Permanent impoundments may not be constructed on preexisting benches backfilled with excess spoil under this regulation.

(g) Final configuration of the backfill must be compatible with the natural drainage patterns and the surrounding area, and support the approved postmining land use.

(h) Disposal of excess spoil from an upper actively mined bench to a lower preexisting bench by means of gravity transport may be approved by the Department provided that--

(1) The gravity transport courses are determined on a site-specific basis by the operator as part of the permit application and approved by the Permit Board to minimize hazards to health and safety and to ensure that damage will be minimized between the benches, outside the set course, and downslope of the lower bench should excess spoil accidentally move;

(2) All gravity transported excess spoil, including that excess spoil immediately below the gravity transport courses and any preexisting spoil that is disturbed, is rehandled and placed in horizontal lifts in a controlled manner, concurrently compacted as necessary to ensure mass stability and to prevent mass movement, and graded to allow surface and subsurface drainage to be compatible with the natural surroundings and to ensure a minimum long-term static safety factor of 1.3. Excess spoil on the bench prior to the current mining operation that is not disturbed need not be rehandled except where necessary to ensure stability of the fill;

(3) A safety berm is constructed on the solid portion of the lower bench prior to gravity transport of the excess spoil. Where there is insufficient material on the lower bench to construct a safety berm, only that amount of excess spoil necessary for the construction of the berm may be gravity transported to the lower bench prior to construction of the berm.

(4) Excess spoil shall not be allowed on the downslope below the upper bench except on designated gravity transport courses properly prepared according to §§5309-5311. Upon completion of the fill, no excess spoil shall be allowed to remain on the designated gravity transport course between the two benches and each transport course shall be reclaimed in accordance with the requirements of this chapter.

§5367. Protection of Underground Mining

No surface mining activities shall be conducted closer than 500 feet to any point of either an active or abandoned underground mine, except to the extent that -

(a) The activities result in improved resource recovery, abatement of water pollution, or elimination of hazards to the health and safety of the public; and

(b) The nature, timing, and sequence of the activities that propose to mine closer than 500 feet to an active underground mine are jointly approved by the Department, the Mine Safety and Health Administration, and the State agency, if any, responsible for the safety of underground mine workers.

§5369. Coal Mine Waste: General Requirements

(a) General. All coal mine waste disposed of in an area other than the mine workings or excavations shall be placed in new or existing disposal areas within a permit area, which are approved by the Department for this purpose. Coal mine waste shall be hauled or conveyed and placed for final placement in a controlled manner to:

(1) Minimize adverse effects of leachate and surface-water runoff on surface and ground water quality and quantity;

(2) Ensure mass stability and prevent mass movement during and after construction;

(3) Ensure that the final disposal facility is suitable for reclamation and revegetation compatible with the natural surroundings and the approved postmining land use;

(4) Not create a public hazard; and

(5) Prevent combustion.

(b) Coal mine waste material from activities located outside a permit area may be disposed of in the permit area only if approved by the Department. Approval shall be based upon a

showing that such disposal will be in accordance with the standards of this section.

(c) Design certification.

(1) The disposal facility shall be designed using current, prudent engineering practices and shall meet any design criteria established by the Department. A qualified registered professional engineer, experienced in the design of similar earth and waste structures, shall certify the design of the disposal facility.

(2) The disposal facility shall be designed to attain a minimum long-term static safety factor of 1.5. The foundation and abutments must be stable under all conditions of construction.

(d) Foundation. Sufficient foundation investigations, as well as any necessary laboratory testing of foundation material, shall be performed in order to determine the design requirements for foundation stability. The analyses of the foundation conditions shall take into consideration the effect of underground mine workings, if any, upon the stability of the disposal facility.

(e) Emergency procedures. If any examination or inspection discloses that a potential hazard exists, the Department shall be informed promptly of the finding and of the emergency procedures formulated for public protection and remedial action. If adequate procedures cannot be formulated or implemented, the Department shall be notified immediately. The Department shall then notify the appropriate agencies that other emergency procedures are required to protect the public.

(f) Underground disposal. Coal mine waste may be disposed of in underground mine workings, but only in accordance with a plan approved by the Department and MSHA under 30 C.F.R. §784.25.

§5371. Coal mine waste: Refuse piles.

Refuse piles shall meet the requirements of § 5369, the additional requirements of this section, and the requirements of 30 C.F.R. §§ 77.214 and 77.215.

(a) Drainage control.

(1) If the disposal area contains springs, natural or manmade water courses, or wet weather seeps, the design shall include diversions and underdrains as necessary to control erosion, prevent water infiltration into the disposal facility and ensure stability.

(2) Uncontrolled surface drainage may not be diverted over the outslope of the refuse piles. Runoff from the areas above the refuse pile and runoff from the surface of the refuse pile shall be diverted into stabilized diversion channels designed to meet the requirements of § 5317 to safely pass the runoff from a 100-year, 6-hour precipitation event. Runoff diverted from undisturbed areas need not be commingled with runoff

from the surface of the refuse pile.

(3) Underdrains shall comply with the requirements of § 5359(f)(3).

(b) Surface area stabilization. Slope protection shall be provided to minimize surface erosion at the site. All disturbed areas, including diversion channels that are not riprapped or otherwise protected, shall be revegetated upon completion of construction.

(c) Placement.

(1) All vegetative and organic materials shall be removed from the disposal area prior to placement of coal mine waste. Topsoil shall be removed, segregated and stored or redistributed in accordance with §5309 and §5311. If approved by the Permit Board, organic material may be used as mulch, or may be included in the topsoil to control erosion, promote growth of vegetation or increase the moisture retention of the soil.

(2) The final configuration of the refuse pile shall be suitable for the approved postmining land use. Terraces may be constructed on the outslope of the refuse pile if required for stability, control of erosion, conservation of soil moisture, or facilitation of the approved postmining land use. The grade of the outslope between terrace benches shall not be steeper than 2h:1v (50 percent).

(3) No permanent impoundments shall be allowed on the completed refuse pile. Small depressions may be allowed by the Department if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation, and if they are not incompatible with stability of the refuse pile.

(4) Following final grading of the refuse pile, the coal mine waste shall be covered with a minimum of 4 feet of the best available, nontoxic and noncombustible material, in a manner that does not impede drainage from the underdrains. The Department may allow less than 4 feet of cover material based on physical and chemical analyses which show that the requirements of §§5389-53103 will be met.

(d) Inspections. A qualified Registered Professional Engineer, or other qualified professional specialist under the direction of a registered professional engineer shall inspect the refuse pile during construction. The registered professional engineer or specialist shall be experienced in the construction of similar earth and waste structures.

(1) Such inspections shall be made at least quarterly throughout construction and during critical construction periods. Critical construction periods shall include at a minimum:

(A) Foundation preparation including the removal of all organic material and topsoil;

(B) placement of underdrains and protective filter systems;

(C) installation of final surface drainage systems; and

(D) the final graded and revegetated facility. Regular inspections by the registered professional engineer or specialist shall also be conducted during placement and compaction of coal mine waste materials. More frequent inspections shall be conducted if a danger of harm exists to the public health and safety or the environment. Inspections shall continue until the refuse pile has been finally graded and revegetated or until a later time as required by the Department.

(2) The qualified registered professional engineer shall provide a certified report to the Department promptly after each inspection that the refuse pile has been constructed and maintained as designed and in accordance with the approved plan and this chapter. The report shall include appearances of instability, structural weakness, and other hazardous conditions.

(3) The certified report on the drainage system and protective filters shall include color photographs taken during and after construction, but before underdrains are covered with coal mine waste. If the underdrain system is constructed in phases, each phase shall be certified separately. The photographs accompanying each certified report shall be taken in adequate size and number with enough terrain or other physical features of the site shown to provide a relative scale to the photographs and to specifically and clearly identify the site.

(4) A copy of each inspection report shall be retained at or near the minesite.

§5373. Coal Processing Waste: Burning and Burned Waste Utilization

(a) Coal processing waste fires shall be extinguished by the person who conducts the surface mining activities in accordance with a plan approved by the Permit Board and the Mine Safety and Health Administration. The plan shall contain, at a minimum, provisions to ensure that only those persons authorized by the operator, and who have an understanding of the procedures to be used, shall be involved in the extinguishing operations.

(b) No burning or burned coal mine waste shall be removed from a permitted disposal area without a removal plan approved by the Permit Board. Consideration shall be given to potential hazards to persons working or living in the vicinity of the structure.

§5375. Disposal of Noncoal Wastes

(a) Noncoal wastes including, but not limited to, grease, lubricants, paints, flammable liquids,

garbage, abandoned mining machinery, lumber and other combustibles generated during surface mining activities shall be placed and stored in a controlled manner in a designated portion of the permit area. Placement and storage shall insure that leachate and surface runoff do not degrade surface water or ground water, that fires are prevented, and that the area remains stable and suitable for reclamation and revegetation compatible with the natural surroundings.

(b) Final disposal of noncoal wastes shall be in a designated disposal site in the permit area or a State-approved solid waste disposal area. Disposal sites in the permit area shall be designed and constructed with appropriate water barriers on the bottom and sides of the designated site to ensure that leachate and drainage from the noncoal mine waste area does not degrade surface or underground water. Wastes shall be routinely compacted and covered to prevent combustion and wind-borne waste. When the disposal is completed, a minimum of two feet of soil cover shall be placed over the site, slopes stabilized, and revegetation accomplished in accordance with §§5389-53103. Operation of the disposal site shall be conducted in accordance with all local, state and federal requirements. Nothing in these regulations shall exempt a permittee from compliance with the Mississippi Nonhazardous Waste Management Regulations.

(c) At no time shall any solid waste material be deposited at refuse embankments or impoundment sites, nor shall any excavation for solid waste disposal be located within eight feet of any coal outcrop or coal storage area.

§5377. Coal mine waste: Impounding structures.

New and existing impounding structures constructed of coal mine waste or intended to impound coal mine waste shall meet the requirements of §5369.

(a) Coal mine waste shall not be used for construction of impounding structures unless it has been demonstrated to the Department that the stability of such a structure conforms to the requirements of this part and the use of coal mine waste will not have a detrimental effect on downstream water quality or the environment due to acid seepage through the impounding structure. The stability of the structure and the potential impact of acid mine seepage through the impounding structure shall be discussed in detail in the design plan submitted to the Department in accordance with § 2725.

(b) (1) Each impounding structure constructed of coal mine waste or intended to impound coal mine waste shall be designed, constructed and maintained in accordance with § 5327(a) and (c). Such structures may not be retained permanently as part of the approved postmining land use.

(2) Each impounding structure constructed of coal mine waste or intended to impound coal mine waste that meets the criteria of 30 C.F.R. § 77.216(a) shall have sufficient spillway capacity to safely pass, adequate storage capacity to safely contain, or a combination of storage capacity and spillway capacity to safely control, the probable maximum precipitation of a 6-hour precipitation event, or greater event as specified

by the Department.

(c) Spillways and outlet works shall be designed to provide adequate protection against erosion and corrosion. Inlets shall be protected against blockage.

(d) Drainage control. Runoff from areas above the disposal facility or runoff from surface of the facility that may cause instability or erosion of the impounding structure shall be diverted into stabilized diversion channels designed to meet the requirements of § 5317 and designed to safely pass the round off from a 100-year, 6-hour design precipitation event.

(e) Impounding structures constructed of or impounding coal mine waste shall be designed so that at least 90 percent of the water stored during the design precipitation event can be removed within a 10-day period.

(f) For an impounding structure constructed of or impounding coal mine waste, at least 90 percent of the water stored during the design precipitation event shall be removed within the 10-day period following the design precipitation event.

§5379 Stabilization of surface areas.

(a) All exposed surface areas shall be protected and stabilized to effectively control erosion and air pollution attendant to erosion.

(b) Rills and gullies which form in areas that have been regraded and topsoiled and which either disrupt the approved postmining land use or the reestablishment of the vegetative cover or cause or contribute to a violation of water-quality standards for receiving streams shall be filled, regraded, or otherwise stabilized; topsoil shall be replaced; and the areas shall be reseeded or replanted.

§5381. Air Resources Protection

(a) Fugitive Dust. Each person who conducts surface mining activities shall plan and employ fugitive dust control measures as an integral part of site preparation, coal mining and reclamation operations. The Department shall approve the control measures appropriate for use in planning, according to applicable federal and state air quality standards, climate, existing air quality in the area affected by mining, and the available control technology.

(b) Control Measures. The fugitive dust control measures to be used, depending on applicable federal and state air quality standards, climate, existing air quality, size of operation and type of operation, shall include, as necessary, but not be limited to:

(1) periodic watering of unpaved roads, with the minimum frequency of watering approved by the Department;

(2) chemical stabilization of unpaved roads with proper application of nontoxic soil cement or dust palliatives;

(3) paving of roads;

(4) prompt removal of coal, rock, soil and other dust-forming debris from roads and frequent scraping and compaction of unpaved roads to stabilize the road surface;

(5) restricting the speed of vehicles to reduce fugitive dust caused by travel;

(6) revegetating, mulching or otherwise stabilizing the surface of all areas adjoining roads that are sources of fugitive dust;

(7) restricting the travel of unauthorized vehicles on other than established roads;

(A) enclosing, covering, watering or otherwise treating loaded haul trucks and railroad cars to reduce loss of material to wind and spillage;

(B) substituting conveyor systems for haul trucks and covering conveyor systems when conveyed loads are subjected to wind erosion;

(C) minimizing the area of disturbed land;

(D) prompt revegetation of regraded lands;

(E) use of alternatives for coal handling methods, restriction of dumping procedures, wetting of disturbed materials during handling, and compaction of disturbed areas;

(F) planting of special windbreak vegetation at critical points in the permit area;

(G) control of dust from drilling using water sprays, hoods, dust collectors or other controls;

(H) restricting the areas to be blasted at any one time;

(I) restricting activities causing fugitive dust during periods of air stagnation;

(J) extinguishing any areas of burning or smoldering coal and periodically inspecting for burning areas whenever the potential for spontaneous combustion is high;

(K) reducing the period of time between initially disturbing the soil and revegetating or other surface stabilization;

(L) restricting fugitive dust at spoil and coal transfer and loading points with water sprays, negative pressure systems and baghouse filters, chemicals or other practices.

(c) Additional Measures. Where the Department determines that application of fugitive dust control measures listed in §5381(b) is inadequate, the Department may require additional measures and practices as necessary. Nothing in these regulations will lessen the responsibility of a surface coal mining and reclamation operation to comply with the air pollution control regulations promulgated by the Commission and enforced through the Office of Pollution Control.

(d) Monitoring. Air monitoring equipment shall be installed and monitoring shall be conducted in accordance with the air monitoring plan required under §2711 and approved by the office.

§5383. Protection of Fish, Wildlife and Related Environmental Values

(a) Any person conducting surface mining activities shall, to the extent possible using the best technology currently available, minimize disturbances and adverse impact of the activities on fish, wildlife and related environmental values, and achieve enhancement of such resources where practicable.

(b) Endangered and Threatened Species. No surface mining activity shall be conducted which is likely to jeopardize the continued existence of endangered or threatened species listed by the secretary of interior or which is likely to result in the destruction or adverse modification of designated critical habitats of such species in violation of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). The operator shall promptly report to the Department any state- or federally-listed endangered or threatened species within the permit area of which the operator becomes aware. Upon notification, the Department shall consult with appropriate state and federal fish and wildlife agencies and, after consultation, shall identify whether, and under what conditions, the operator may proceed.

(c) Bald and Golden Eagles. No surface mining activity shall be conducted in a manner which would result in the unlawful taking of a bald or golden eagle, its nest or any of its eggs. The operator shall promptly report to the Department any golden or bald eagle nest within the permit area of which the operator becomes aware. Upon notification, the Department shall consult with the U.S. Fish and Wildlife Service and also, where appropriate, the state fish and wildlife agency and, after consultation, shall identify whether, and under what conditions, the operator may proceed.

(d) Nothing in these regulations shall authorize the taking of an endangered or threatened species or a bald or golden eagle, its nest or any of its eggs in violation of the Endangered Species Act of 1973, as amended, (16 U.S.C. 1537 et seq.), or the Bald Eagle Protection Act, as amended, (16 U.S.C. 668 et seq.).

(e) Each operator shall, to the extent possible using the best technology currently available -

(1) Ensure that electric powerlines and other transmission facilities used for, or incidental to, surface mining activities on the permit area are designed and constructed to minimize electrocution hazards to raptors, except where the Department determines that such requirements are unnecessary;

(2) Locate and operate haul and access roads so as to avoid or minimize impacts on important fish and wildlife species or other species protected by State or Federal law;

(3) Design fences, overland conveyors, and other potential barriers to permit passage for large mammals, except where the Department determines that such requirements are unnecessary; and

(4) Fence, cover, or use other appropriate methods to exclude wildlife from ponds which contain hazardous concentrations of toxic-forming materials.

(f) Wetlands and habitats of unusually high value for fish and wildlife. The operator conducting surface mining activities shall avoid disturbances to, enhance where practicable, restore, or replace, wetlands, and riparian vegetation along rivers and streams and bordering ponds and lakes. Surface mining activities shall avoid disturbances to, enhance where practicable, or restore, habitats of unusually high value for fish and wildlife.

(g) Where fish and wildlife habitat is to be a postmining land use, the plant species to be used on reclaimed areas shall be selected on the basis of the following criteria:

(1) Their proven nutritional value for fish or wildlife.

(2) Their use as cover for fish or wildlife.

(3) Their ability to support and enhance fish or wildlife habitat after the release of performance bonds. The selected plants shall be grouped and distributed in a manner which optimizes edge effect, cover, and other benefits to fish and wildlife.

(h) Where cropland is to be the postmining land use, and where appropriate for wildlife- and crop-management practices, the operator shall intersperse the fields with trees, hedges, or fence rows throughout the harvested area to break up large blocks of monoculture and to diversify habitat types for birds and other animals.

(i) Where residential, public service, or industrial uses are to be the postmining land use, and where consistent with the approved postmining land use, the operator shall intersperse reclaimed lands with greenbelts utilizing species of grass, shrubs, and trees useful as food and cover for wildlife.

§5385. Slides and Other Damage

(a) An undisturbed natural barrier shall be provided beginning at the elevation of the lowest coal seam to be mined and extending from the outslope for such distance as may be determined by the Permit Board as is needed to assure stability. The barrier shall be retained in place to prevent slides and erosion.

(b) At any time a slide occurs which may have a potential adverse affect on public property,

health, safety or the environment, the person who conducts the surface mining activities shall notify the Department by the fastest available means and comply with any remedial measures required by the Department or the Commission.

§5387. Contemporaneous Reclamation

Reclamation efforts, including but not limited to backfilling, grading, topsoil replacement, and revegetation, on all land that is disturbed by surface mining activities shall occur as contemporaneously as practicable with mining operations.

§5389. Backfilling and Grading: Time and distance requirements.

(a) Except as provided in §5389(b) of this section, rough backfilling and grading for surface mining activities shall be completed according to one of the following schedules:

(1) Contour mining. Within 60 days or 1,500 linear feet following coal removal; or

(2) Area mining. Within 180 days following coal removal, and not more than four spoil ridges behind the pit being worked, the spoil from the active pit constituting the first ridge.

(3) Other Surface Mining Methods. Rough backfilling and grading shall occur in accordance with the time schedule approved by the Permit Board, on the basis of the materials submitted under §2715, which shall specifically establish in stated increments the period between surface mining activities and completion of back filling and grading.

(b) The Department may extend the time allowed for rough back-filling and grading for the entire permit area or for a specified portion of the permit area if the permittee demonstrates in accordance with § 2715 that additional time is necessary.

§5391. Backfilling and Grading: General Grading Requirements

(a) Disturbed areas shall be backfilled and graded to:

(1) Achieve the approximate original contour, except as provided in §5391(k);

(2) Eliminate all highwalls, spoil piles, and depressions, except as provided in §5391(h) (small depressions) and in §5391(k)(3)(iii) (previously mined highwalls) of this section;

(3) Achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long-term static safety factor of 1.3 and to prevent slides;

(4) Minimize erosion and water pollution both on and off the site; and

(5) Support the approved postmining land use.

(b) Spoil, except excess spoil disposed of in accordance with §§ 5359 through 5365, shall be returned to the mined-out area.

(c) Spoil and waste materials shall be compacted where advisable to ensure stability or to prevent leaching of toxic materials.

(d) Spoil may be placed on the area outside the mined-out area in nonsteep slope areas to restore the approximate original contour by blending the spoil into the surrounding terrain if the following requirements are met:

(1) All vegetative and organic material shall be removed from the area.

(2) The topsoil on the area shall be removed, segregated, stored, and redistributed in accordance with § 5311.

(3) The spoil shall be backfilled and graded on the area in accordance with the requirements of this section.

(e) Disposal of coal processing waste and underground development waste in the mined-out area shall be in accordance with §§ 5369-5373, except that a long-term static safety factor of 1.3 shall be achieved.

(f) Exposed coal seams, acid- and toxic-forming materials, and combustible materials exposed, used, or produced during mining shall be adequately covered with nontoxic and non-combustible material, or treated, to control the impact on surface and ground water in accordance with §§ 5313 and 5325-5343, to prevent sustained combustion, and to minimize adverse effects on plant growth and the approved postmining land use.

(g) Cut-and-fill terraces may be allowed by the Department where:

(1) Needed to conserve soil moisture, ensure stability, and control erosion on final-graded slopes, and control erosion on final-graded slopes, if the terraces are compatible with the approved postmining land use; or

(2) Specialized grading, foundation conditions, or roads are required for the approved postmining land use, in which case the final grading may include a terrace of adequate width to ensure the safety, stability, and erosion control necessary to implement the postmining land-use plan.

(h) Small depressions may be constructed if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation.

(i) Permanent impoundments may be approved if they meet the requirements of §§ 5327 and 5341 and if they are suitable for the approved postmining land use.

(j) Preparation of final-graded surfaces shall be conducted in a manner that minimizes erosion and provides a surface for replacement of topsoil that will minimize slippage.

(k) The postmining slope may vary from the approximate original contour when:

(1) The standards for thin overburden in § 5393 are met;

(2) The standards for thick overburden in § 5395 are met; or

(3) Approval is obtained from the Department for —

(A) Mountaintop removal operations in accordance with 30 C.F.R. § 785.14, which is adopted by reference for this purpose;

(B) A variance from approximate original contour requirements in accordance with §2905; or

(C) Incomplete elimination of highwalls in previously mined areas in accordance with 30 C.F.R. § 816.106.

§5393. Backfilling and grading: Thin Overburden

(a) Definition. Thin overburden means insufficient spoil and other waste materials available from the entire permit area to restore the disturbed area to its approximate original contour. Insufficient spoil and other waste materials occur where the overburden thickness times the swell factor, plus the thickness of other available waste materials, is less than the combined thickness of the overburden and coal bed prior to removing the coal, so that after backfilling and grading the surface configuration of the reclaimed area would not:

(1) Closely resemble the surface configuration of the land prior to mining; or

(2) Blend into and complement the drainage pattern of the surrounding terrain.

(b) Performance standards. Where thin overburden occurs within the permit area, the permittee at a minimum shall;

(1) Use all spoil and other waste materials available from the entire permit area to attain the lowest practicable grade, but not more than the angle of repose; and

(2) Meet the requirements of § 5391(a)(2)-j of this chapter.

§5395. Backfilling and Grading: Thick Overburden

(a) Definition. Thick overburden means more than sufficient spoil and other waste materials available from the entire permit area to restore the disturbed area to its approximate original contour. More than sufficient spoil and other waste materials occur where the overburden thickness times the swell factor exceeds the combined thickness of the overburden and coal bed prior to removing the coal, so that after backfilling and grading the surface configuration of the reclaimed area would not:

(1) Closely resemble the surface configuration of the land prior to mining; or

(2) Blend into and complement the drainage pattern of the surrounding terrain.

The provisions of this Section apply only when surface mining activities cannot be carried out to comply with §5391 to achieve the approximate original contour.

(b) Performance standards. Where thick overburden occurs within the permit area, the permittee at a minimum shall:

(1) Restore the approximate original contour and then use the remaining spoil and other waste materials to attain the lowest practicable grade, but not more than the angle of repose;

(2) Meet the requirements of § 5391 (a)(2) through (j) of this chapter; and

(3) Dispose of any excess spoil in accordance with §§5359-5365.

§5397. Revegetation: General Requirements

(a) Each person who conducts surface mining activities shall establish on regraded areas and on all other disturbed areas, except water areas and surface areas of roads that are approved as part of the post-mining land use, a vegetative cover that is in accordance with the approved permit and reclamation plan and that is:

(1) diverse, effective and permanent;

(2) comprised of species native to the area, or of introduced species where desirable and necessary to achieve the approved post-mining land use and approved by the Permit Board;

(3) at least equal in extent of cover to the natural vegetation of the area; and

(4) capable of stabilizing the soil surface from erosion.

(b) The reestablished plant species shall:

(1) be compatible with the approved post-mining land use;

(2) have the same seasonal characteristics of growth as the original vegetation;

(3) be capable of self-regeneration and plant succession;

(4) be compatible with the plant and animal species of the area;

(5) meet the requirements of applicable state and federal seed, poisonous and noxious plant, and introduced species laws or regulations; and

(6) not be Kudzu, Pueraria lobata or any vine of the Kudzu family.

(c) The Permit Board may grant exception to the requirements of §§5397(b)(2)-(3) when the species are necessary to achieve a quick-growing, temporary, stabilizing cover, and measures to establish permanent vegetation are included in the approved permit and reclamation plan.

(d) When the Permit Board approves a cropland post-mining land use, the Permit Board may grant exception to the requirements of §5397(a)(1) and (3) and §5397(b)(2) and (3). In addition, the requirements of Chapter 55 apply to areas identified as prime farmland.

§5399. Revegetation: Timing

Disturbed areas shall be planted during the first normal period for favorable planting conditions after replacement of the plant-growth medium. The normal period for favorable planting is that planting time generally accepted locally for the type of plant materials selected. When necessary to effectively control erosion, any disturbed area shall be seeded and planted, as contemporaneously as practicable with the completion of backfilling and grading, with a temporary cover of small grains, grasses or legumes until a permanent cover is established.

§53101. Revegetation: Mulching and Other Soil Stabilizing Practices

(a) Suitable mulch and other soil stabilizing practices shall be used on all regraded and topsoiled areas to control erosion, promote germination of seeds, or increase the moisture retention capacity of the soil. The Permit Board may waive this requirement if seasonal, soil, or slope factors result in a condition where mulch and other soil stabilizing practices are not necessary to control erosion and to promptly establish an effective vegetative cover.

(b) When required by the Permit Board, mulches shall be mechanically or chemically anchored to the soil surface to assure effective protection of the soil and vegetation.

(c) Annual grasses and grains may be used alone, as in situ mulch, or in conjunction with another mulch, when the Permit Board determines that they will provide adequate soil erosion control and will later be replaced by perennial species approved for the post-mining land use.

(d) Chemical soil stabilizers alone, or in combination with appropriate mulches, may be used in

conjunction with vegetative covers approved for the post-mining land use.

§53103. Revegetation: Standards for Success

(a) Success of revegetation shall be judged on the effectiveness of the vegetation for the approved post-mining land use, the extent of perennial cover compared to the cover occurring in natural vegetation of the area, the general requirements of §§5397-53103, and the specific requirements of Appendix A, " Revegetation Success Standards", where specific standards for the designated postmining land use are stated in Appendix A. Appendix A is incorporated by reference into these regulations as if set out fully herein, and the provisions of Appendix A are enforceable provisions of these regulations. If a postmining land use is selected and approved by the Permit Board for which standards are not specified in Appendix A, or to the extent that Appendix A does not specify a more specific standard of success for a postmining land use, the following general standards of success shall apply.

(b) (1) Standards for success shall include criteria representative of unmined lands in the area being reclaimed to evaluate the appropriate vegetation parameters of ground cover, production, or stocking. Ground cover, production, or stocking shall be considered equal to the approved success standard when they are not less than 90 percent of the success standard. The sampling techniques for measuring success shall use a 90-percent statistical confidence interval (i.e., one-sided test with a 0.10 alpha error).

(2) The period of extended responsibility for successful revegetation shall begin after the last year of augmented seeding, fertilizing, irrigation, or other work, excluding husbandry practices that are approved by the Department in accordance with §53103 (b)(3) of this section.

(3) In areas of more than 26.0 inches of annual average precipitation, the period of responsibility shall continue for a period of not less than:

(A) Five full years, except as provided in §53103(b)(2)(B) of this section. The vegetation parameters identified in paragraph §53103(b) of this section for grazing land, pasture land, or cropland shall equal or exceed the approved success standard during the growing season of any 2 years of the responsibility period, except the first year. Areas approved for the other uses identified in §53103(b) of this section shall be equal or exceed the applicable success standard during the growing season of the last year of the responsibility period.

(B) Two full years for lands eligible for remining included in permits issued before September 30, 2004, or any renewals thereof. To the extent that the success standards are established by §53103 (a) of this section, the lands shall equal or exceed the standards during the growing season of the last year of

the responsibility period.

(4) The Permit Board may approve selective husbandry practices, excluding augmented seeding, fertilization, or irrigation, provided it obtains prior approval from the Director in accordance with 30 C.F.R. § 732.17 that the practices are normal husbandry practices, without extending the period of responsibility for revegetation success and bond liability, if such practices can be expected to continue as part of the postmining land use or if discontinuance of the practices after the liability period expires will not reduce the probability of permanent revegetation success. Approved practices shall be normal husbandry practices within the region for unmined lands having land uses similar to the approved postmining land use of the disturbed area, including such practices as disease, pest, and vermin control; and any pruning, reseeding, and transplanting specifically necessitated by such actions.

§53105. Cessation of Operations: Temporary

(a) Each person who conducts surface mining activities shall effectively secure surface facilities in areas in which there are no current operations, but in which operations are to be resumed under an approved permit. Temporary abandonment shall not relieve a person of his, her, or its obligation to comply with any provisions of the approved permit.

(b) Before temporary cessation of mining and reclamation operations for a period of 30 days or more, or as soon as it is known that a temporary cessation will extend beyond 30 days, persons who conduct surface mining activities shall submit to the Department a notice of intention to cease or abandon mining and reclamation operations. This notice shall include a statement of the exact number of acres which will have been affected in the permit area prior to such temporary cessation, the extent and kind of reclamation of those areas which will have been accomplished and identification of the backfilling, regrading, revegetation, environmental monitoring and water treatment activities that will continue during the temporary cessation.

§53107. Cessation of Operations: Permanent

(a) Persons who cease surface mining activities permanently shall close, backfill or otherwise permanently reclaim all affected areas, in accordance with these regulations and the permit approved by the Permit Board.

(b) All underground openings, equipment, structures or other facilities not required for monitoring, unless approved by the Permit Board as suitable for the post-mining land use or environmental monitoring, shall be removed and the affected land reclaimed.

§53109. Post-mining Land Use

(a) General. All affected areas shall be restored in a timely manner to conditions that are capable

of supporting the uses which they were capable of supporting before any mining, or to higher or better uses achievable under the criteria and procedures of this Section.

(b) Determining Premining Use of Land. The premining uses of land to which the post-mining land use is compared shall be those uses which the land previously supported, if the land has not been previously mined and has been properly managed. The post-mining land use for land that has been previously mined and not reclaimed shall be judged on the basis of the land use that existed prior to any mining, provided that, if the land cannot be reclaimed to the land use that existed prior to any mining because of the previously mined condition, the post-mining land use shall be judged on the basis of the highest and best use that can be achieved which is compatible with surrounding areas and does not require the disturbance of areas previously unaffected by mining.

(c) Criteria for alternative postmining land uses. Higher or better uses may be approved by the Permit Board as alternative postmining land uses after consultation with the landowner or the land management agency having jurisdiction over the lands, if the proposed uses meet the following criteria:

(1) There is a reasonable likelihood for achievement of the use.

(2) The use does not present any actual or probable hazard to public health or safety, or threat of water diminution or pollution.

(3) The use will not--

(A) Be impractical or unreasonable;

(B) Be inconsistent with applicable land use policies or plans;

(C) Involve unreasonable delay in implementation; or

(D) Cause or contribute to violation of Federal, State, or local law.

(d) Approximate original contour: Criteria for variance. Surface coal mining operations that meet the requirements of this Paragraph may be conducted under a variance from the requirement to restore disturbed areas to their approximate original contour, if the following requirements are satisfied:

(1) The Permit Board grants the variance under a permit issued in accordance with §2905.

(2) The alternative postmining land use requirements of §53109(c) are met.

(3) All applicable requirements of the Act and the regulatory program, other than the requirement to restore disturbed areas to their approximate original contour, are met.

(4) After consultation with the appropriate land use planning agencies, if any, the potential use is shown to constitute an equal or better economic or public use.

(5) The proposed use is designed and certified by a qualified registered professional engineer in conformance with professional standards established to assure the stability, drainage, and configuration necessary for the intended use of the site.

(6) The watershed of the permit and adjacent areas is shown to be improved.

(7) The highwall is completely backfilled with spoil material, in a manner which results in a static factor of safety of at least 1.3, using standard geotechnical analysis.

(8) Only the amount of spoil as is necessary to achieve the postmining land use, ensure the stability of spoil retained on the bench, and meet all other requirements of the Mississippi program is placed off the mine bench. All spoil not retained on the bench shall be placed in accordance with §§5359-5365.

(9) The surface landowner of the permit area has knowingly requested, in writing, that a variance be granted, so as to render the land, after reclamation, suitable for an industrial, commercial, residential, or public use (including recreational facilities).

(10) Federal, State, and local government agencies with an interest in the proposed land use have an adequate period in which to review and comment on the proposed use.

§53111. Roads: General

(a) Road Classification System

(1) Each road, as defined in §105, shall be classified as either a primary road or an ancillary road.

(2) A primary road is any road which is:

(A) used for transporting coal or spoil;

(B) frequently used for access or other purposes for a period in excess of six months; or

(C) to be retained for an approved post-mining land use.

(3) An ancillary road is any road not classified as a primary road.

(4) A limited use vehicular pathway is not classified as a road if it meets all the following:

(i) the pathway has no improved roadbed, which means it has no constructed crown, compacted base, roadway ditches, or surface material added to

enhance use as a pathway which precludes vegetation;

(ii) the pathway has no bridges or other cross-drainage structures;

(iii) the pathway is not located in and/or does not cross or ford any channel of an intermittent or perennial stream;

(iv) the pathway has only limited clearing, if any, of woody vegetation, typically wide enough only for the safe passage of one vehicle;

(v) the pathway is located so as to control erosion and siltation; and

(vi) maintenance of the pathway is limited to maintenance consisting only of the occasional filling of potholes and ruts in order to remain passable.

(5) A limited use vehicular pathway:

(i) shall be reclaimed with vegetation sufficient to prevent erosion prior to phase II bond release;

(ii) along with the area it disturbs, is a mining related activity and must be covered by an appropriate reclamation bond;

(iii) will be reclassified as a road if upgraded by construction activities such as blading, construction, placement of a compacted surface, cut and fill of the natural grade, construction of drainage ditches or low water crossings, or installation of drainage structures. The submittal and approval of plans and drawings required by these regulations must be completed prior to the upgrading of a limited use vehicular pathway.

(b) Performance Standards. Each road shall be located, designed, constructed, reconstructed, used, maintained and reclaimed so as to:

(1) control or prevent erosion, siltation, and the air pollution attendant to erosion, including road dust as well as dust occurring on other exposed surfaces, by measures such as vegetating, watering, using chemical or other dust suppressants, or otherwise stabilizing all exposed surfaces in accordance with current, prudent engineering practices;

(2) control or prevent damage to fish, wildlife or their habitat and related environmental values;

(3) control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area;

(4) neither cause nor contribute to, directly or indirectly, the violation of state or federal water quality standards applicable to receiving waters;

(5) refrain from seriously altering the normal flow of water in streambeds or drainage channels;

(6) prevent or control damage to public or private property, including the prevention or mitigation of adverse effects on lands within the boundaries of units of the National

Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including designated study rivers, and National Recreation Areas designated by act of Congress; and

(7) use nonacid- and nontoxic-forming substances in road surfacing.

(c) Design and Construction Limits and Establishment of Design Criteria. To ensure environmental protection appropriate for their planned duration and use, including consideration of the type and size of equipment used, the design and construction or reconstruction of roads shall incorporate appropriate limits for grade, width, surface materials, surface drainage control, culvert placement and culvert size, in accordance with current, prudent engineering practices, and any necessary design criteria established by the Department.

(d) Location

(1) No part of any road shall be located in the channel of an intermittent or perennial stream unless specifically approved by the Permit Board in accordance with applicable §§5313 - 5343.

(2) Roads shall be located to minimize downstream sedimentation and flooding.

(e) Maintenance

(1) A road shall be maintained to meet the performance standards of this Section and any additional criteria specified by the Permit Board.

(2) A road damaged by a catastrophic event, such as a flood or earthquake, shall be repaired as soon as is practicable after the damage has occurred.

(f) Reclamation. A road not to be retained under an approved post-mining land use shall be reclaimed in accordance with the approved reclamation plan as soon as practicable after it is no longer needed for mining and reclamation operations. This reclamation shall include:

(1) closing the road to traffic;

(2) removing all bridges and culverts unless approved as part of the post-mining land use;

(3) removing or otherwise disposing of road-surfacing materials that are incompatible with the post-mining land use and revegetation requirements;

(4) reshaping cut and fill slopes as necessary to be compatible with the post-mining land use and to complement the natural drainage pattern of the surrounding terrain;

(5) protecting the natural drainage patterns by installing dikes or cross drains as necessary to control surface runoff and erosion; and

(6) scarifying or ripping the roadbed; replacing topsoil or substitute material, and revegetating disturbed surfaces in accordance with §§5309-5311 and 5397-53103.

§53113. Primary Roads

Primary roads shall meet the requirements of §53111 and the additional requirements of this Section.

(a) Certification. The construction or reconstruction of primary roads shall be certified in a report to the Department by a qualified, registered professional engineer. The report shall indicate that the primary road has been constructed or reconstructed as designed and in accordance with the approved plan.

(b) Safety Factor. Each primary road embankment shall have a minimum static factor of 1.3 or meet the requirements established under §2737(c).

(c) Location

(1) To minimize erosion, a primary road shall be located, insofar as is practicable, on the most stable available surface.

(2) Fords of perennial or intermittent streams by primary roads are prohibited unless they are specifically approved by the Permit Board as temporary routes during periods of road construction.

(d) Drainage Control. In accordance with the approved plan:

(1) Each primary road shall be constructed, or reconstructed, and maintained to have adequate drainage control, using structures such as, but not limited to, bridges, ditches, cross drains and ditch relief drains. The drainage control system shall be designed to safely pass the peak runoff from a 10-year, six-hour precipitation event, or greater event as specified by the Permit Board.

(2) Drainage pipes and culverts shall be installed as designed, and maintained in a free and operating condition and to prevent or control erosion at inlets and outlets.

(3) Drainage ditches shall be constructed and maintained to prevent uncontrolled drainage over the road surface and embankment.

(4) Culverts shall be installed and maintained to sustain the vertical soil pressure, the passive resistance of the foundation, and the weight of vehicles using the road.

(5) Natural stream channels shall not be altered or relocated without the prior approval of the Permit Board in accordance with applicable §§5313 - 5343.

(6) Except as provided in §53113(c)(2), structures for perennial or intermittent stream channel crossings shall be made using bridges, culverts, low-water crossings, or other structures designed, constructed and maintained using current, prudent engineering practices. The Permit Board shall ensure that low-water crossings are designed, constructed and maintained to prevent erosion of the structure or streambed and additional contributions of suspended solids to streamflow.

(e) Surfacing. Primary roads shall be surfaced with material approved by the Permit Board as being sufficiently durable for the anticipated volume of traffic and the weight and speed of vehicles using the road.

§53115. Utility installations

All surface coal mining operations shall be conducted in a manner which minimizes damage, destruction, or disruption of services provided by oil, gas, and water wells; oil, gas, and coal-slurry pipelines; railroads; electric and telephone lines; and water and sewage lines which pass over, under, or through the permit area, unless otherwise approved by the owner of those facilities and the Permit Board.

§53117. Support Facilities

(a) Support facilities shall be operated in accordance with a permit issued for the mine or coal preparation operation to which it is incident or from which its operation results.

(b) In addition to the other provisions of this part, support facilities shall be located, maintained, and used in a manner that--

(1) Prevents or controls erosion and siltation, water pollution, and damage to public or private property; and

(2) To the extent possible using the best technology currently available--

(A) Minimizes damage to fish, wildlife, and related environmental values; and

(B) Minimizes additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions shall not be in excess of limitations of State or Federal law.

Chapter 55. Special Permanent Program Performance Standards: Operations on Prime Farmland

§5501. Prime Farmland: Scope and Purpose.

This part sets forth special environmental protection performance, reclamation, and design standards for surface coal mining and reclamation operations on prime farmland.

§5503. Prime Farmland: Soil Removal and Stockpiling.

(a) Prime farmland soils shall be removed from the areas to be disturbed before drilling, blasting, or mining.

(b) The minimum depth of soil and soil materials to be removed and stored for use in the reconstruction of prime farmland shall be sufficient to meet the requirements of §5311 and §5507 of this chapter.

(c) Soil removal and stockpiling operations on prime farmland shall be conducted to:

(1) Separately remove the topsoil, or remove other suitable soil materials where such other soil materials will create a final soil having a greater productive capacity than that which exist prior to mining. If not utilized immediately, this material shall be placed in stockpiles separate from the spoil and all other excavated materials; and

(2) Separately remove the B or C soil horizon or other suitable soil material to provide the thickness of suitable soil required by §5311 and §5507 of this chapter, except as approved by the Department where the B or C soil horizons would not otherwise be removed and where soil capabilities can be retained. If not utilized immediately, each horizon or other material shall be stockpiled separately from the spoil and all other excavated materials. Where combinations of such soil materials created by mixing have been shown to be equally or more favorable for plant growth than the B horizon, separate handling is not necessary.

(d) Stockpiles shall be placed within the permit area where they will not be disturbed or be subject to excessive erosion. If left in place for more than 30 days, stockpiles shall meet the requirements of §5311 and §5507 of this chapter.

§5505. Prime Farmland: Soil Replacement

Surface coal mining and reclamation operations on prime farmland shall be conducted according to the following:

(a) The minimum depth of soil and substitute soil material to be reconstructed shall be 48 inches, or a lesser depth equal to the depth to a subsurface horizon in the natural soil that inhibits or prevents root penetration, or a greater depth if determined necessary to restore the original soil productive capacity. Soil horizons shall be considered as inhibiting or preventing root penetration if their physical or chemical properties or water-supplying capacities cause them to restrict or prevent penetration by roots of plants common to the vicinity of the permit area and if these properties

or capacities have little or no beneficial effect on soil productivity capacity.

(b) Replace soil material only on land which has been first returned to final grade and scarified according to §§5389-5395 unless site-specific evidence is provided and approved by the Permit Board showing that scarification will not enhance the capability of the reconstructed soil to achieve equivalent or higher levels of yield.

(c) Replace and regrade the soil horizons or other suitable soil material with proper compaction and uniform depth.

(d) Replace the B horizon, C horizon, or other suitable material specified in §5503 (c) to the thickness needed to meet the requirements of §5505 (a). In those areas where the B or C horizons were not removed but may have been compacted or otherwise damaged during the mining operation, the operator shall engage in deep tilling or other appropriate means to restore pre-mining capabilities.

(e) The operator shall replace the topsoil or other suitable soil materials specified in §5503 (c) (1) as the final surface soil layer. This surface soil layer shall equal or exceed the thickness of the original surface soil layer, as determined by the soil survey.

(f) Apply nutrients and soil amendments as needed to quickly establish vegetative growth.

§5507. Prime Farmland: Revegetation and Restoration of Soil Productivity

(a) Following prime farmland soil replacement, the soil surface shall be stabilized with a vegetative cover or other means that effectively controls soil loss by wind and water erosion.

(b) Each person who conducts surface coal mining and reclamation operations on prime farmland shall meet the following revegetation requirements during reclamation:

(1) Prime farmland soil productivity shall be restored in accordance with the following provisions:

(A) Measurement of soil productivity shall be initiated within 10 years after completion of soil replacement.

(B) Soil productivity shall be measured on a representative sample or on all of the mined and reclaimed prime farmland area using the reference crop determined under §5507(b)(1)(F). A statistically valid sampling technique at a 90-percent or greater statistical confidence level shall be used as approved by the Permit Board in consultation with the U.S. Natural Resources Conservation Service.

(C) The measurement period for determining average annual crop production

(yield) shall be a minimum of three crop years prior to release of the operator's performance bond.

(D) The level of management applied during the measurement period shall be the same as the level of management used on nonmined prime farmland in the surrounding area.

(E) Restoration of soil productivity shall be considered achieved when the average yield during the measurement period equals or exceeds the average yield of the reference crop established for the same period for nonmined soils of the same or similar texture or slope phase of the soil series in the surrounding area under equivalent management practices.

(F) The reference crop on which restoration of soil productivity is proven shall be selected from the crops most commonly produced on the surrounding prime farmland. Where row crops are the dominant crops grown on prime farmland in the area, the row crop requiring the greatest rooting depth shall be chosen as one of the reference crops.

(G) Reference crop yields for a given crop season are to be determined from:

(i) the current yield records of representative local farms in the surrounding area, with concurrence by the U.S. Natural Resources Conservation Service; or

(ii) the average county yields recognized by the U.S. Department of Agriculture, which have been adjusted by the U.S. Natural Resources Conservation Service for local yield variation within the county that is associated with differences between non-mined prime farmland soil and all other soils that produce the reference crop.

(H) Under either procedure in §5507(b)(1)(G), the average reference crop yield may be adjusted, with the concurrence of the U.S. Natural Resources Conservation Service, for:

(i) disease, pest and weather-induced seasonal variations; or

(ii) differences in specific management practices where the overall management practices of the crops being compared are equivalent; or

(iii) differences in annual precipitation.

Chapter 57. Special Permanent Program Performance Standards: Operations on Steep Slopes

§5701. Applicability

(a) Any surface coal mining and reclamation operations on steep slopes shall meet the requirements of this Chapter.

(b) The standards of this Chapter do not apply to mining conducted on a flat or gently rolling terrain with an occasional steep slope through which the mining proceeds and leaves a plain or predominantly flat area.

§5703. Steep Slopes: Backfilling and grading: Steep slopes

(a) Surface mining activities on steep slopes shall be conducted so as to meet the requirements of §§5389-5395, and the requirements of this section except where mining is conducted on flat or gently rolling terrain with an occasional steep slope through which the mining proceeds and leaves a plain or predominantly flat area.

(b) The following materials shall not be placed on the downslope:

(1) Spoil.

(2) Waste materials of any type.

(3) Debris, including that from clearing and grubbing.

(4) Abandoned or disabled equipment.

(c) Land above the highwall shall not be disturbed unless the Department finds that this disturbance will facilitate compliance with the environmental protection standards of this Subpart.

(d) Woody materials shall not be buried in the backfilled area unless the Department determines that the proposed method for placing woody material within the backfill will not deteriorate the stable condition of the backfilled areas.

Chapter 59. Special Permanent Program Performance Standards: Coal Preparation Plants and Support Facilities Not Located At or Near the Minesite or Not Within the Permit Area for a Mine

§5901. Applicability

Each person who conducts surface coal mining and reclamation operations, which includes the operation of a coal preparation plant which is not located within the permit area for a specific mine, shall obtain a permit in accordance with §2909 to conduct those operations, obtain a bond in accordance with Subpart IV, and comply with §5903.

§5903. Coal Preparation Plants: Performance Standards

The construction, operation, maintenance, modification, reclamation, and removal activities at coal preparation plants shall comply with the following:

(a) Signs and markers for the coal preparation plant, coal processing waste disposal area, and water-treatment facilities shall comply with § 5301.

(b) Any stream channel diversion shall comply with § 5317.

(c) Drainage from any disturbed area related to the coal preparation plant shall comply with §§5319-5325, and all discharges from these areas shall meet the requirements of §§5313 and 5315 and any other applicable State or Federal law.

(d) Permanent impoundments associated with coal preparation plants shall meet the requirements of §§5327 and 5341 of this chapter. Dams constructed of, or impounding, coal processing waste shall comply with §5377.

(e) Disposal of coal processing waste, noncoal mine waste, and excess spoil shall comply with §§5359-5365 and 5369-5377.

(f) Fish, wildlife, and related environmental values shall be protected in accordance with § 5383.

(g) Support facilities related to the coal preparation plant shall comply with §53117.

(h) Roads shall comply with §§53111 and 53113.

(i) Cessation of operations shall be in accordance with §§ 53105 and 53107.

(j) Erosion and air pollution attendant to erosion shall be controlled in accordance with § 5379.

(k) Adverse effects upon, or resulting from, nearby underground coal mining activities shall be minimized by appropriate measures including, but not limited to, compliance with § 5367.

(l) Reclamation shall follow proper topsoil handling, backfilling and grading, revegetation, and

postmining land use procedures in accordance with §§5309, 5311, 5387, 5389, 5391, 5393, 5397 - 53103, and 53109.

Chapter 61. Special Permanent Program Performance Standards: In Situ Processing

§6101. In Situ Processing: Performance Standards

(a) The person who conducts in situ processing activities shall comply with Chapter 53.

(b) In situ processing activities shall be planned and conducted to minimize disturbance to the prevailing hydrologic balance by:

(1) avoiding discharge of fluids into holes or wells, other than as approved by the Permit Board;

(2) injecting process recovery fluids only into geologic zones or intervals approved as production zones by the Permit Board;

(3) avoiding annular injection between the wall of the drill hole and the casing; and

(4) preventing discharge of process fluid into surface waters.

(c) Each person who conducts in situ processing activities shall submit for approval as part of the application for permit under §2911, and follow after approval, a plan that ensures that all acid-forming, toxic-forming, or radioactive gases, solids or liquids constituting a fire, health, safety or environmental hazard and caused by the mining and recovery process are promptly treated, confined or disposed of in a manner that prevents contamination of ground water and surface water, damage to fish, wildlife and related environmental values, and threats to the public health and safety.

(d) Each person who conducts in situ processing activities shall prevent flow of the process recovery fluid:

(1) horizontally beyond the affected area identified in the permit; and

(2) vertically into overlying or underlying aquifers.

(e) Each person who conducts in situ processing activities shall restore the quality of affected ground water in the permit and adjacent area, including ground water above and below the production zone, to the approximate premining levels or better, to ensure that the potential for use of the ground water is not diminished.

§6103. In Situ Processing: Monitoring

(a) Each person who conducts in situ processing activities shall monitor the quality and quantity

of surface water and ground water and the subsurface flow and storage characteristics, in a manner approved by the Permit Board under §5333, to measure changes in the quantity and quality of water in surface- and ground-water systems in the mine plan and in adjacent areas.

(b) Air and water quality monitoring shall be conducted in accordance with monitoring programs approved by the Permit Board as necessary according to appropriate federal and state air and water quality standards.

Chapter 63. Inspections

§6301. Inspections

(a) Authorized representatives of the Executive Director may conduct inspections of surface coal mining and reclamation operations as necessary to enforce the provisions of the act, these regulations and any permit, and to determine whether any notice of violation or cessation order issued during an inspection authorized under this Section has been complied with.

(b) Basis for Inspections

(1) An authorized representative of the Executive Director shall immediately conduct an inspection to enforce any requirement of the act, these regulations, or any condition of a permit or an exploration or development operations approval imposed under the act or these regulations, when the authorized representative has reason to believe, on the basis of information available to him or her (other than information resulting from a previous inspection), that there exists a violation of the act, these regulations, or any condition of a permit or an exploration or development operations approval, or that there exists any condition, practice or violation which creates an imminent danger to the health or safety of the public or is causing or can reasonably be expected to cause a significant, imminent environmental harm to land, air or water resources. This paragraph does not limit the routine inspections to be performed under § 6301(c).

(2) An authorized representative shall have reason to believe that a violation, condition or practice exists if the facts alleged by the informant or facts indicated by the representative's personal knowledge would, if true, constitute a condition, practice or violation referred to in §6301(b)(1).

(c) The Department shall conduct inspections of all coal exploration, development operations and surface coal mining and reclamation operations under its jurisdiction. These inspections shall average at least:

(1) one partial inspection per month of each surface coal mining and reclamation operation, and shall conduct such partial inspections of each inactive surface coal mining and reclamation operation as are necessary to ensure effective enforcement of these regulations. A partial inspection is an onsite or aerial review of a person's

compliance with some of the permit conditions and requirements imposed under these regulations, during which the inspector collects evidence with respect to every violation of any such condition or requirement observed;

(2) one complete inspection per calendar quarter of each active or inactive surface coal mining and reclamation operation. A complete inspection is an onsite review of a person's compliance with all permit conditions and requirements imposed under these regulations within the entire area disturbed or affected by surface coal mining and reclamation operations, including the collection of evidence with respect to every violation of any such condition or requirement;

(3) periodic inspections of all coal exploration operations required to comply in whole or part with the act, or these regulations, including the collection of evidence with respect to every violation of any condition of the exploration or development operations approval, or any requirement of the act or these regulations;

(4) (A) Aerial inspections shall be conducted in a manner which reasonably ensures the identification and documentation of conditions at each surface coal mining and reclamation site inspected;

(B) Any potential violation observed during an aerial inspection shall be investigated on-site within three days, provided, that any indication of a condition, practice, or violation constituting cause for the issuance of a cessation order under §6501 shall be investigated on-site immediately, and provided further that an on-site investigation of a potential violation observed during an aerial inspection shall not be considered to be an additional partial or complete inspection for the purposes of §6301(c)(1) and (2).

(d) The inspections required under §6301(c) shall:

(1) be carried out on an irregular basis so as to monitor compliance at all operations, including those which operate nights, weekends or holidays;

(2) occur without prior notice to the person being inspected or any of his agents or employees, except for necessary onsite meetings; and

(3) include the prompt filing of inspection reports adequate to enforce the requirements of, and to carry out the terms and purposes of the act and these regulations.

(e) For the purposes of §6301, an inactive surface coal mining and reclamation operation is one for which:

(1) the Department has secured from the permittee the written notice provided for under §53105 or 53107.

(2) Reclamation Phase II as defined at Chapter 45 has been completed and the liability

of the permittee has been reduced by the Commission in accordance with these regulations.

(f) For the purposes §6301, an abandoned site is as defined at §105.

(g) In lieu of the inspection frequency established §6301(c)(1) and (2), the Department shall inspect each abandoned site on a set frequency commensurate with the public health and safety and environmental considerations present at each specific site, but in no case shall the inspection frequency be set at less than one complete inspection per calendar year.

(1) In selecting an alternate inspection frequency authorized under §6301(g), the Department shall first conduct a complete inspection of the abandoned site and provide public notice under §6301(g)(2). Following the inspection and public notice, the Department shall prepare and maintain for public review a written finding justifying the alternative inspection frequency selected. This written finding shall justify the new inspection frequency by affirmatively addressing in detail all of the following criteria:

(A) How the site meets each of the criteria under the definition of an abandoned site under §105 and thereby qualifies for a reduction in inspection frequency;

(B) Whether, and to what extent, there exist on the site impoundments, earthen structures or other conditions that pose, or may reasonably be expected to ripen into, imminent dangers to the health or safety of the public or significant environmental harms to land, air, or water resources;

(C) The extent to which existing impoundments or earthen structures were constructed and certified in accordance with prudent engineering designs approved in the permit;

(D) The degree to which erosion and sediment control is present and functioning;

(E) The extent to which the site is located near or above urbanized areas, communities, occupied dwellings, schools and other public or commercial buildings and facilities;

(F) The extent of reclamation completed prior to abandonment and the degree of stability of unreclaimed areas, taking into consideration the physical characteristics of the land mined and the extent of settlement or revegetation that has occurred naturally with them; and

(G) Based on a review of the complete and partial inspection report record for the site during at least the last two consecutive years, the rate at which adverse environmental or public health and safety conditions have and can be expected to progressively deteriorate.

(2) The public notice and opportunity to comment required under §6301(g)(1) shall be provided as follows:

(A) The Department shall place a notice in the newspaper with the broadest circulation in the locality of the abandoned site providing the public with a 30-day period in which to submit written comments.

(B) The public notice shall contain the permittee's name, the permit number, the precise location of the land affected, the inspection frequency proposed, the general reasons for reducing the inspection frequency, the bond status of the permit, the telephone number and address of the Department where written comments on the reduced inspection frequency may be submitted, and the closing date of the comment period.

§6303. Citizens' Requests for Inspections

(a) A citizen may request an inspection under §6301(b) by furnishing to an authorized representative of the Executive Director a signed, written statement, or an oral report followed by a signed, written statement, giving the authorized representative reason to believe that a violation, condition or practice referred to in §6301(b)(1) exists and setting forth a phone number and address where the citizen can be contacted.

(b) The identity of any person supplying information to the Department relating to a possible violation or imminent danger or harm shall remain confidential with the Department, if requested by that person, unless that person elects to accompany the inspector on the inspection, or unless disclosure is required under other state law.

(c) If an inspection is conducted as a result of information provided to the Department by a citizen as described in §6303(a), the citizen shall be notified as far in advance as practicable as to when the inspection is to occur and shall be allowed to accompany the authorized representative of the Executive Director during the inspection. Such person has a right of entry to, upon and through the coal exploration, development or surface coal mining and reclamation operation about which he or she supplied information, but only if he or she is in the presence of and is under the control, direction and supervision of the authorized representative while on the mine property. Such right of entry does not include a right to enter buildings without consent of the person in control of the building or without a search warrant.

(d) Within 10 days of the inspection or, if there is no inspection, within 15 days of receipt of the citizen's written statement, the Department shall send the citizen the following:

(1) if an inspection was made, a description of the enforcement action taken, which may consist of copies of the inspection report and all notices of violation and cessation orders issued as a result of the inspection or an explanation of why no enforcement action was taken;

(2) if no inspection was conducted, an explanation of the reason why;

(3) an explanation of the citizen's right, if any, to review of the action or inaction of the Department under §6309.

(e) The Department shall give copies of all materials in §6303(d)(1) and (2) within the time limits specified in those Paragraphs to the person alleged to be in violation, except that the name of the citizen shall be removed unless disclosure of the citizen's identity is permitted under §6303(b).

§6305. Right of Entry

(a) Each authorized representative of the Executive Director conducting an inspection under §6301:

(1) shall have a right of entry to, upon and through any coal exploration, development or surface coal mining and reclamation operation, without advance notice or a search warrant, upon presentation of appropriate credentials;

(2) may, at reasonable times and without delay, have access to and copy any records and inspect any monitoring equipment or method of operation required under the act, these regulations, or any condition of an exploration or development operations approval or permit imposed under the act or these regulations.

(3) shall have a right to gather physical and photographic evidence to document conditions, practices, or violations at the site.

§6307. Review of Adequacy and Completeness of Inspection

Any person who is or may be adversely affected by a surface coal mining and reclamation operation or a coal exploration or development operation may notify the Executive Director in writing of any alleged failure on the part of the Department to make adequate complete or periodic inspections as provided in §6301(b)(1), (c) and (d). The notification shall include sufficient information to create a reasonable belief that §6301(b)(1), (c) and (d) are not being complied with and to demonstrate that the person is or may be adversely affected. The Executive Director shall within 15 days of receipt of the notification determine whether §6301(b)(1), (c) and (d) are being complied with and, if not, shall immediately order an inspection to remedy the noncompliance. The Executive Director shall also furnish the complainant with a written statement of the reasons for such determination and the actions, if any, taken to remedy the noncompliance.

§6309. Review of Decision Not to Inspect or Enforce

(a) Any person who is or may be adversely affected by a coal exploration, development or surface coal mining and reclamation operation may ask the Commission to review the

decision of the Executive Director or his authorized representative not to inspect or take appropriate enforcement action with respect to any violation alleged by that person in a request for inspection under §6303. The request for review shall be in writing and include a statement of how the person is or may be adversely affected and why the decision merits review.

(b) The Commission shall conduct the review and inform the person, in writing, of the results of the review within 30 days of his or her receipt of the request. The person alleged to be in violation shall also be given a copy of the results of the review, except that the name of the citizen shall not be disclosed unless confidentiality has been waived or disclosure is required under applicable state law. If the person bringing the matter before the Commission is aggrieved by the action or inaction of the Commission in the matter, he or she may appeal the Commission's action pursuant to §53-9-77.

(c) Review under this Section shall not affect any right to a citizen's suit under §53-9-67.

§6311. Availability of Records

(a) Copies of all records, reports, inspection materials or information obtained by the Department under the act or these regulations shall be made immediately available to the public in the area of mining so that they are conveniently available to residents of that area, except that the Department may refuse to make available:

(1) investigatory records compiled for civil or criminal law enforcement purposes; and

(2) information not required to be made available under §§2109 or 3111.

(b) The Department shall ensure compliance with §6311(a) by either:

(1) making copies of all records, reports, inspection materials and other subject information available for public inspection at a federal, state or local government office or library in the county where the mining is occurring or proposed to occur; or

(2) at the Department's option and expense, providing copies of subject information promptly by mail at the request of any resident of the area where the mining is occurring or is proposed to occur, provided, that the Department shall maintain for public inspection, at a federal, state or local government office or library in the county where the mining is occurring or proposed to occur, a description of the information available for mailing and the procedure for obtaining such information.

(c) The Department and the Director may enter into agreements regarding procedures for the special handling of investigative and enforcement reports and other such materials.

(d) The Department shall make available to the Director, upon request, copies of all documents relating to applications for and approvals of existing, new, or revised coal exploration

approvals or surface coal mining and reclamation operations permits and all documents relating to inspection and enforcement actions.

Chapter 65. Enforcement

§6501. Cessation Orders

(a) (1) The executive director or his or her authorized representative shall immediately order a cessation of surface coal mining and reclamation operations or of the relevant portion thereof, if he or she finds, on the basis of any inspection, any condition or practice, or any violation of the Act, these regulations, or any condition of an exploration or development operations approval or permit imposed under any such program, the Act or these regulations, which:

(A) creates an imminent danger to the health or safety of the public; or

(B) is causing or can reasonably be expected to cause significant, imminent environmental harm to land, air or water resources.

(2) Surface coal mining and reclamation operations conducted by any person without a valid surface coal mining permit constitute a condition or practice which causes or can reasonably be expected to cause significant, imminent environmental harm to land, air or water resources, unless such operations:

(A) are an integral, uninterrupted extension of previously permitted operations, and the person conducting such operations has filed a timely and complete application for a permit to conduct such operations; or

(B) were conducted lawfully without a permit under the interim regulatory program because no permit has been required for such operations by the state.

(3) If the cessation ordered under §6501(a)(1) will not completely abate the imminent danger or harm in the most expeditious manner physically possible, the authorized representative shall impose affirmative obligations on the person to whom it is issued to abate the condition, practice or violation. The order shall specify the time by which abatement shall be accomplished and may require, among other things, the use of existing or additional personnel and equipment.

(b) (1) The executive director or his or her authorized representative shall immediately order a cessation of coal exploration, development or surface coal mining and reclamation operations, or of the relevant portion thereof, when a notice of violation has been issued under §6503(a) and the person to whom it was issued fails to abate the violation within the abatement period fixed or subsequently extended by the authorized representative.

(2) A cessation order issued under this Paragraph shall require the person to whom it is issued to take all steps the authorized representative deems necessary to abate the violations covered by the order in the most expeditious manner physically possible.

(c) A cessation order issued under §6501(a) or (b) shall be in writing, signed by the executive director or his or her authorized representative who issues it, and shall set forth with reasonable specificity:

(1) the nature of the condition, practice, or violation;

(2) the remedial action of affirmative obligation required, if any, including interim steps, if appropriate;

(3) the time established for abatement, if appropriate, including the time for meeting any interim steps; and

(4) a reasonable description of the portion of the coal exploration, development or surface coal mining and reclamation operation to which it applies. The order shall remain in effect until the condition, practice or violation has been abated or until vacated, modified or terminated in writing by the executive director or his or her authorized representative or until the order expires pursuant to § 6509.

(d) Reclamation operations and other activities intended to protect public health and safety and the environment shall continue during the period of any order unless otherwise provided in the order.

(e) The executive director or his or her authorized representative may modify, terminate or vacate a cessation order for good cause, and may extend the time for abatement if the failure to abate within the time previously set was not caused by lack of diligence on the part of the person to whom it was issued.

(f) The executive director or his or her authorized representative shall terminate a cessation order, by written notice to the person to whom the order was issued, when he or she determines that all conditions, practices, or violations listed in the order have been abated. Termination shall not affect the right of the Commission to assess civil penalties for those violations under Chapter 67or 69.

(g) Within 60 days after issuing a cessation order, the Department shall notify in writing any person who has been identified under §§3123(f) and 2305(c) as owning or controlling the permittee that the cessation order was issued and that the person has been identified as an owner or controller.

§6503. Notice of Violation

(a) The executive director or his or her authorized representative shall issue a notice of violation if, on the basis of an inspection he finds a violation of the Act, these regulations, or any

condition of a permit or an exploration or development operations approval imposed under the Act or these regulations which does not create an imminent danger or harm for which a cessation order must be issued under §6501.

(b) A notice of violation issued under this Section shall be in writing, signed by the authorized representative who issues it, and shall set forth with reasonable specificity:

(1) the nature of the violation;

(2) the remedial action required, which may include interim steps;

(3) a reasonable description of the portion of the coal exploration, development operation, or surface coal mining and reclamation operation to which it applies; and

(4) a reasonable time for abatement which may include time for accomplishment of interim steps.

(c) The executive director or his or her authorized representative may extend the time set for abatement or for accomplishment of an interim step, if the failure to meet the time previously set was not caused by lack of diligence on the part of the person to whom it was issued. The total time for abatement under a notice of violation, including all extensions, shall not exceed 90 days from the date of issuance, except upon a showing by the permittee that it is not feasible to abate the violation within 90 calendar days due to one or more of the circumstances in §6503(f). An extended abatement date pursuant to this Section shall not be granted when the permittee's failure to abate within 90 days has been caused by a lack of diligence or intentional delay by the permittee in completing the remedial action required.

(d) If the person to whom the notice was issued fails to meet any time set for abatement or for accomplishment of an interim step, the authorized representative shall issue a cessation order under §6501(b).

(e) The executive director or his or her authorized representative shall terminate a notice of violation by written notice to the person to whom it was issued, when he or she determines that all violations listed in the notice of violation have been abated. Termination shall not affect the right of the Commission to assess civil penalties for those violations under Chapter 67 or 69.

(f) Circumstances which may qualify a surface coal mining operation for an abatement period of more than 90 days are:

(1) where the permittee of an ongoing permitted operation has timely applied for and diligently pursued a permit renewal or other necessary approval of designs or plans but such permit or approval has not been or will not be issued within 90 days after a valid permit expires or is required, for reasons not within the control of the permittee;

(2) where there is a valid judicial order precluding abatement within 90 days as to which the permittee has diligently pursued all rights of appeal and as to which he or she has no other effective legal remedy;

(3) where the permittee cannot abate within 90 days due to a labor strike;

(4) where climatic conditions preclude abatement within 90 days, or where, due to climatic conditions, abatement within 90 days clearly would cause more environmental harm than it would prevent; or

(5) where abatement within 90 days requires action that would violate safety standards established by statute or regulation under the Mine Safety and Health Act of 1977.

(g) Whenever an abatement time in excess of 90 days is permitted, interim abatement measures shall be imposed to the extent necessary to minimize harm to the public or the environment.

(h) If any of the conditions in §6503(f) exists, the permittee may request the executive director to grant an abatement period exceeding 90 days. The abatement period granted shall not exceed the shortest possible time necessary to abate the violation. The permittee shall have the burden of establishing by clear and convincing proof that he or she is entitled to an extension under the provisions of §6503(c) and (f). In determining whether or not to grant an abatement period exceeding 90 days, the executive director may consider any relevant written or oral information from the permittee or any other source. The executive director shall promptly and fully document in the file his or her reasons for granting or denying the request.

(i) Any determination made under 6503(h) shall contain a right of appeal to the Commission in accordance with §53-9-69(e).

(j) No extension granted under §6503(h) may exceed 90 days in length. Where the condition or circumstance which prevented abatement within 90 days exists at the expiration of any such extension, the permittee may request a further extension in accordance with the procedures of §6503(h).

§6505. Suspension or Revocation of Permits

(a) (1) When, on the basis of an inspection, the executive director has reason to believe that a pattern of violations of this chapter, any regulation promulgated under this chapter or any condition of a permit exists or has existed, and if the executive director also finds that the violations are caused by the unwarranted failure of the permittee to comply with this chapter, any regulation promulgated under this chapter or any condition of a permit , or that the violations are willfully caused by the permittee, the executive director shall issue an order to the permittee to show cause as to why the permit should not be suspended or revoked by the permit board. If the permittee files a written response to the show cause order and requests an informal conference, the Executive Director or his designee shall conduct an informal conference in an open

meeting at the mine site or at a nearby convenient location. The Executive Director shall give thirty (30) days written notice of the date, time and place of the informal conference to the permittee and to any interested party who has notified the Executive Director that he or she wishes to present information at the informal conference. Upon issuance of the notice, the Executive Director shall publish it in a newspaper of general circulation in the area of the surface coal mining and reclamation operations, and shall post it at the State or field office closest to those operations. Upon the permittee's failure to show cause to the satisfaction of the executive director or the executive director's authorized representative as to why the permit should not be suspended or revoked, the executive director or the executive director's authorized representative shall present this information to the permit board and request that the permit board suspend or revoke the permit. The permit board shall decide the executive director's request under the procedures of Section 49-17-29(4) and (5). Any request by an interested party for a formal hearing regarding the permit board's initial decision on suspension or revocation of the permit or any appeal of the final decision following the formal hearing by any person who participated as a party in the formal hearing may be taken as provided under Section 49-17-29(4) and (5).

(2) The Executive Director or Permit Board may determine that a pattern of violations exists or has existed, based on two or more inspections of the permit area within any 12-month period, after considering the circumstances, including:

(A) the number of violations, cited on more than one occasion, of the same or related requirements of the Act, these regulations or the permit;

(B) the number of violations, cited on more than one occasion, of different requirements of the Act, these regulations or the permit; and

(C) the extent to which the violations were isolated departures from lawful conduct.

(3) The Executive Director shall promptly review the history of violations of any permittee who has been cited for violations of the same or related requirements of the act, these regulations, or the permit during three or more inspections of the permit area within any 12-month period. If, after such review, the Executive Director determines that a pattern of violations exists or has existed, he shall issue an order to show cause as provided in §6505(a)(1).

(b) Within 60 days after the formal hearing, the Permit Board shall issue a written determination as to whether a pattern of violations exists and, if appropriate, shall revoke or suspend the permit. If the Permit Board revokes or suspends the permit and the permittee's right to mine under the Act, the permittee shall immediately cease surface coal mining operations on the permit area and shall:

(1) if the permit and the right to mine under the Act are revoked, complete reclamation

within the time specified in the order;

(2) if the permit and the right to mine under the Act are suspended, complete all affirmative obligations to abate all conditions, practices or violations, as specified in the order.

(c) Whenever a permittee fails to abate a violation contained in a notice of violation or cessation order within the abatement period set in the notice or order or as subsequently extended, the Executive Director shall review the permittee's history of violations to determine whether a pattern of violations exists pursuant to this Section, and shall issue an order to show cause as appropriate pursuant to §6505(a)(1).

§6507. Service of Notices of Violation and Cessation Orders

(a) Except as otherwise expressly provided, any notice or other instrument issued by or under authority of the Commission, the Executive Director, or the Permit Board may be served on any affected person personally or by publication, and proof of that service may be made in the same manner as in case of service of a summons in a civil action. The proof of service shall be filed in the office of the Commission. Service may also be made by mailing a copy of the notice, order, or other instrument by certified mail, directed to the person affected at the person's last known post-office address as shown by the files or records of the Commission. Proof of service may be made by the affidavit of the person who did the mailing and shall be filed in the office of the Executive Director.

(b) Designation by any person of an agent for service of process, notices and orders shall be made in writing to the Department.

§6509. Termination of Order

(a) Except as provided in this section, a notice of violation or cessation order which requires cessation of mining, expressly or by necessary implication, shall expire within thirty (30) days after it is served unless a formal hearing has been held within that time. The hearing shall be held at or reasonably close to the mine site, so that the site may be viewed during the hearing, or at any other location acceptable to the Commission and the person to whom the notice or order was issued. Expiration of a notice or order shall not affect the Commission's right to assess civil penalties with respect to the period during which the notice or order was in effect. No hearing will be required where the condition, practice, or violation in question has been abated or the hearing has been waived. For purposes of this section only, "mining" includes (1) extracting coal from the earth or from coal waste piles and transporting it within or from the permit area, and (2) the processing, cleaning, concentrating, preparing or loading of coal where such operations occur at a place other than at a mine site.

(b) A notice of violation or cessation order shall not expire as provided in paragraph (a) of this section if the formal hearing has been waived, or if, with the consent of the person to whom

the notice or order was issued, the formal hearing is held later than thirty (30) days after the notice or order was served. For purposes of this subsection:

(1) The formal hearing will be deemed waived if the person to whom the notice or order was issued:

(A) is informed, by written notice served in the manner provided in paragraph (b)(2) of this section, that he or she will be deemed to have waived a formal hearing unless he or she requests one within 30 days after service of the notice; and

(B) fails to request a formal hearing within that time.

(2) The written notice referred to in paragraph (b)(1)(A) of this section shall be delivered to such person by an authorized representative or sent by certified mail to such person no later than 5 days after the notice or order is served on such person.

(3) The person to whom the notice or order is issued shall be deemed to have consented to an extension of the time for holding the formal hearing if his or her request for a formal hearing is received on or after the 21st day after service of the notice or order. The extension of time shall be equal to the number of days elapsed after the 21st day.

(c) The Commission shall give as much advance notice as is practicable of the time, place, and subject matter of the formal hearing to:

(1) the person to whom the notice or order was issued; and

(2) any person who filed a report which led to that notice or order.

(d) The Commission shall also post notice of the hearing at the State or field office closest to the mine site and, where practicable, publish it in a newspaper of general circulation in the area of the mine.

(e) Within five days after the close of the formal hearing, the Commission shall affirm, modify, or vacate the notice or order in writing. The decision shall be sent to:

(1) the person to whom the notice or order was issued; and

(2) any person who filed a report which led to the notice or order.

(f) The Commission shall determine whether the mine site should be viewed during the hearing. In making this determination the only consideration shall be whether a view of the mine site will assist the Commission in reviewing the appropriateness of the enforcement action or of the required remedial action.

§6511. Formal Review of Citations

(a) Any interested party aggrieved by an action of the Commission, Executive Director or Executive Director's authorized representative taken pursuant to the Act or these regulations may request a formal hearing before the Commission as provided in §§ 53-9-77 and 49-17-41. A request for formal review must be filed within thirty days of the date the Commission, the Executive Director, or the Executive Director's authorized representative took the action to be contested during the formal review. The Commission, through the Department, shall notify the parties in writing of the time and place of the hearing at least five working days prior to the hearing date. Any person who participated as a party in a formal hearing before the Commission may appeal from a final decision of the Commission made under the Act and these regulations as provided in §§ 53-9-77 and 49-17-41.

(b) The filing of an application for review and request for a hearing under this Section shall not operate as a stay of any notice or order, or of any modification, termination or vacation of either.

(c) Temporary Relief From Notices Of Violation and Cessation Orders. Any party to a proceeding that is the result of the issuance of a notice of violation or cessation order, including, but not limited to, the person to whom a notice of violation or cessation order is directed, may apply to the Commission for temporary relief from the notice or cessation order. The application shall be filed with the office of the Executive Director, and a copy shall be filed at the same time with the State Geologist and the General Counsel of the Department.

(d) The application for temporary relief shall include:

(1) A detailed written statement setting forth the reasons why relief should be granted;

(2) A showing that there is a substantial likelihood that the findings and decisions of the Commission in the matters to which the application relates will be favorable to the applicant;

(3) A statement that the relief sought will not adversely affect the health or safety of the public or cause significant, imminent environmental harm to land, air, or water resources;

(4) If the application relates to an order of cessation, a statement of whether the requirement of § 6511(f) for decision on the application within 5 days is waived; and

(5) A statement of the specific relief requested.

(e) Except as provided in § 6511(f), all parties to the proceeding to which the application relates shall have 5 days from the date of their receipt of the application to file a written response. Except as provided in § 6511(f), the Commission may hold a hearing on any issue raised by the application. The Commission may designate a hearing officer to conduct any

proceedings necessary under this section. The Commission may designate the Executive Director as a hearing officer. Where the application seeks temporary relief from a notice of violation, the Commission shall expeditiously issue an order granting or denying such relief.

(f) If the application seeks temporary relief from a cessation order, the order granting or denying the request shall be issued within 5 days of its receipt by the Commission. If the 5-day requirement is waived by the applicant, the Commission shall expeditiously conduct a hearing and render a decision on the application. If the applicant does not waive the 5-day requirement, the following special rules of procedure shall apply:

(1) The 5-day period shall not begin to run until the application is filed in the office of the Executive Director, or a copy is received in the office of the General Counsel of the Department, or a copy is received in the office of the State Geologist, whichever is later.

(2) Prior to or at the hearing on the application, the applicant shall file with the Commission an affidavit stating the date upon which the application was filed with the Executive Director and the copies were delivered to the General Counsel of the Department and the State Geologist. In the alternative, the applicant may make an oral statement on the record at the hearing setting forth that information.

(3) In addition to the service requirements of paragraph (c), the applicant shall serve any other parties with a copy of the application simultaneously with the filing of the application. If service is accomplished by mail, the applicant shall inform such other parties by telephone at the time of mailing that an application is being filed, the contents of the application, and with whom the application was filed.

(4) The Department, through the General Counsel his designee, and all other parties may indicate their objection to the application by communicating such objection to the Commission and the applicant in person or by telephone through the Executive Director. The Department and all other parties shall simultaneously reduce their objections to writing. The written objections must be immediately filed with the Commission and immediately served upon the applicant.

(5) Upon receipt of communication that there is an objection to the request, the Commission shall immediately order a location, time, and date for the hearing by communicating such information to the General Counsel of the Department, the State Geologist, all other parties, and the applicant by telephone or facsimile transmission. The Commission also shall post notice of the hearing as required by the Mississippi Open Meetings Law. The Commission shall reduce the communications to the parties and the applicant to writing and shall attach the writing to the minutes of the hearing, along

with the notice posted pursuant to the Mississippi Open Meetings Law.

(6) If a hearing is held -

(i) The Commission may require the parties to submit proposed findings of fact and conclusions of law at the hearing which may be orally supplemented on the record at the hearing. Where written proposed findings of fact and conclusions of law have been submitted at the hearing, they may be orally presented for the record at the hearing.

(ii) The Commission shall either rule from the bench on the application, orally stating the reasons for its decision, or it shall within 24 hours of completion of the hearing reconvene to issue its decision. The decision shall be memorialized as written findings of fact and conclusions of law either issued by the Commission at its next meeting or issued by the Executive Director in the interim. If the Commission makes an oral ruling, its approval of the record of the hearing, combined with any order memorializing the decision, shall constitute its written findings of fact and conclusions of law.

(7) The order or decision of the Commission shall be issued within 5 working days of the receipt of the application for temporary relief.

(8) If at any time after the initiation of this expedited procedure, the applicant requests a delay or acts in a manner so as to frustrate the expeditious nature of this proceeding or fails to supply the information required by § 6511(d), such action shall constitute a waiver of the 5-day requirement.

(g) Any party desiring to appeal a decision of the Commission granting or denying temporary relief may appeal to and seek relief from the appropriate chancery court pursuant to § 53-9-77.

(h) An application for expedited review of an order of cessation may be filed under this section, whenever temporary relief has not been granted under this section, by the following:

(1) A permittee who has been issued an order of cessation by the Commission; or

(2) Any interested party to the cessation order.

Except as provided in this section, expedited review of a cessation order shall be conducted by the Commission, and a decision made on the application, within 30 days of receipt of the complete application for expedited review from a party entitled to expedited review. A permittee or other interested party waives his or her right to expedited review upon being granted temporary relief pursuant to this section. The

application for expedited review shall be filed in the same manner as that described in § 6511(c). If the party filing the application was served with the cessation order, the application must be filed within 30 days of receipt of the order. If the party filing the application was not served with the order, the party must file the application within 40 days of issuance of the order. Prior to filing the application, a person who was served with the cessation order must notify the General Counsel of the Department within 15 days of receipt of the order of his or her intent to file an application. If the applicant was not served with the order, he or she must so notify the General Counsel of the Department within 20 days of issuance of the order.

(i) Any person filing an application for expedited review under this section shall incorporate the following in that application regarding each claim for relief:

(1) A statement of facts entitling that person to administrative relief;

(2) A request for specific relief;

(3) A specific statement which delineates each issue to be addressed by the applicant during the expedited proceeding;

(4) A copy of the order to be reviewed;

(5) A list identifying each of the applicant's witnesses by name, address, and place of employment, including expert witnesses and the area of expertise to which they will address themselves at the hearing, and a detailed summary of each witness's expected testimony;

(6) Copies of all exhibits and other documentary evidence that the applicant intends to introduce as evidence at the hearing and descriptions of all physical exhibits and evidence which is not capable of being copied or attached; and

(7) Any other relevant information.

(j) If the applicant for expedited review fails to comply with all the requirements of § 6511(i), the Commission may find that the applicant has waived the 30-day decision requirement or the Commission shall order that the application be perfected and the application shall not be considered filed for purposes of the 30-day decision until perfected. Failure to timely comply with the Commission's order shall constitute a waiver of the 30-day decision requirement.

(k) In computing the 30-day time period for an expedited decision, intermediate Saturdays, Sundays, and State of Mississippi legal holidays shall be excluded in the computation.

(l) Any person qualified to receive a 30-day decision may waive that right:

(1) by filing an application pursuant to § 6511(a);

(2) by failing to comply with all the requirements of § 6511(h) and (i); or

(3) in accordance with § 6511(n)(8).

(m) Any person qualified to receive a 30-day decision shall waive that right:

(1) by obtaining temporary relief pursuant to § 6511(c) - (f);

(2) by failing to perfect an application for expedited review pursuant to § 6511(h) and (i); or

(3) in accordance with § 6511(n)(7).

(n) If the applicant does not waive the 30-day requirement, the following special rules shall apply:

(1) The applicant shall serve all known parties with a copy of the application simultaneously with the filing of the application with the General Counsel of the Department. If service is accomplished by mail, the applicant shall inform all known parties by telephone at the time of mailing that an application is being filed and shall inform the Commission, through the Executive Director, that such notice has been given.

(2) Any party desiring to file a response to the application for review shall file a written response within 5 working days of service of the application.

(3) If the applicant has requested a hearing, the Commission, through the Executive Director, shall act immediately upon receipt of the application to notify the parties of the time and place of the hearing at least 5 working days prior to the hearing date.

(4) The Commission may require the parties to submit proposed findings of fact and conclusions of law at the hearing which may be orally supplemented on the record at the hearing. Where written proposed findings of fact and conclusions of law have been submitted at the hearing, they may be orally presented for the record at the hearing.

(5) The Commission shall either rule from the bench on the application, orally stating the reasons for its decision, or it shall within 30 days of the filing of the perfected application reconvene to issue its decision. The decision shall be memorialized as written findings of fact and conclusions of law either issued by the Commission at its next meeting or issued by the Executive Director under the authority of the Commission in the interim. If the Commission makes an oral ruling, its approval of the record of the hearing

in combination with any subsequent order memorializing the decision shall constitute its written findings of fact and conclusions of law.

(6) If all parties waive the opportunity for a hearing and the Commission, either en banc or through the Executive Director, determines that a hearing is not necessary, but the applicant does not waive the 30-day decision requirement, the Commission shall issue an initial decision on the application within 30 days of receipt of the perfected application. The decision shall contain findings of fact and an order disposing of the application. The decision shall be served upon all the parties.

(7) If at any time after the initiation of this expedited procedure, the applicant requests a delay or acts in a manner so as to frustrate the expeditious nature of this proceeding or fails to supply the information required by § 6511(i), such action shall constitute a waiver of the 30-day requirement.

(8) If the applicant seeks to offer witnesses, exhibits, or testimony at the hearing in addition to those identified, submitted, described, or summarized in the application for expedited review perfected in accordance with the requirements of § 6511(i), upon objection by an opposing party to such offer, the Commission may allow such objecting party additional time in order to prepare for cross-examination of unidentified witnesses or to identify and prepare rebuttal evidence or otherwise uncover any additional prejudice which may result to such party. The Commission may rule that the running of the 30-day time for decision is stayed for the period of any additional time allowed pursuant to this subsection or may determine that the applicant has waived his right to the 30-day decision.

(9) Any party desiring to appeal a decision of the Commission granting or denying an application for expedited review may appeal to and seek relief from the appropriate chancery court pursuant to § 53-9-77.

(o) Any hearing held under this section before the Commission shall be deemed the formal hearing allowed by §§ 53-9-77, 49-17-41, or 49-17-29 concerning the issues addressed by the Commission's decision stemming from that hearing. The Commission shall not be required to conduct any additional public or formal hearings on those matters. A hearing regarding temporary relief will be deemed the only hearing before the Commission regarding temporary relief due the applicant for relief, but the Commission shall conduct an additional hearing on the merits of the notice of violation or cessation order as is necessary for the full adjudication of all issues raised in a timely manner by the person on whom the notice or order is served or any other interested party.

§6513. Failure to Give Notice and Lack of Information

No notice of violation, cessation order, show cause order or order revoking or suspending a permit may be vacated because it is subsequently determined that the Executive Director or his authorized representative did not have information sufficient, under §6301(b)(1) and (2), to justify an inspection.

§6515. Inability to Comply

(a) No cessation order or notice of violation issued under this Chapter may be vacated because of inability to comply.

(b) Inability to comply may not be considered in determining whether a pattern of violations exists.

(c) Unless caused by lack of diligence, inability to comply may be considered only in mitigation of the amount of civil penalty under Chapter 67 and of the duration of the suspension of a permit under §6505 (b).

§6517. Compliance Conference

(a) A permittee may request an on-site compliance conference with an authorized representative of the Executive Director to review the compliance status of any condition or practice proposed at any coal exploration, development operation, or surface coal mining and reclamation operation. Any such conference shall not constitute an inspection within the meaning §6301.

(b) The Executive Director or his authorized representative may accept or refuse any request to conduct a compliance conference under §6517(a).

(c) The authorized representative at any compliance conference shall review such proposed conditions and practices in order to advise whether any such condition or practice may become a violation of any requirement of the Act, these regulations, or any applicable permit, development, or exploration approval.

(d) Neither the holding of a compliance conference under this section nor any opinion given by the Executive Director or his authorized representative at such a conference shall affect:

(1) Any rights or obligations of the Executive Director, his authorized representative, the Department or of the permittee with respect to any inspection, notice of violation or cessation order, whether prior or subsequent to such compliance conference; or

(2) The validity of any notice of violation or cessation order issued with respect to any condition or practice reviewed at the compliance conference.

§6519. Enforcement Actions at Abandoned Sites

The Executive Director or his authorized representative may refrain from issuing a notice of violation or cessation order for a violation at an abandoned site, as defined in §105, if abatement of the violation is required under any previously issued notice or order.

Chapter 67. Civil Penalties

§6701. How Assessments are Made

The Commission shall review each notice of violation and cessation order in accordance with the assessment procedures described in §§6703, 6705, 6707, 6709 and 6711 to determine whether a civil penalty will be assessed, the amount of the penalty, and whether each day of a continuing violation will be deemed a separate violation for purposes of the total penalty assessed.

§6703. When Penalty will be Assessed

(a) The Commission shall assess a penalty for each cessation order.

(b) The Commission shall assess a penalty for each notice of violation, if the violation is assigned 31 points or more under the point system described in §6705.

(c) The Commission may assess a penalty for each notice of violation assigned 30 points or less under the point system described in §6705. In determining whether to assess a penalty, the Commission shall consider the factors listed in §6705(b).

§6705. Point System for Penalties

(a) The Commission shall use the point system described in this Section to determine the amount of the penalty and, in the case of notices of violation, whether a mandatory penalty should be assessed as provided in §6703(b).

(b) Points shall be assigned as follows:

(1) History of Previous Violations. The Commission shall assign up to 30 points based on the history of previous violations. One point shall be assigned for each past violation contained in a notice of violation. Five points shall be assigned for each past violation (but not a condition or practice) contained in a cessation order. The history of previous violations, for the purpose of assigning points, shall be determined and the points assigned with respect to a particular coal exploration, development or surface coal mining operation. Points shall be assigned as follows:

(A) A violation shall not be counted if the notice or order is the subject of pending administrative or judicial review or if the time to request such review or to appeal any administrative or judicial decision has not expired, and thereafter it shall be counted for only one year.

(B) No violation for which the notice or order has been vacated shall be counted.

(C) Each violation shall be counted without regard to whether it led to a civil penalty assessment.

(2) Seriousness. The Commission shall assign up to 30 points based on the seriousness of the violation, as follows:

(A) Probability of Occurrence. The Commission shall assign up to 15 points based on the probability of the occurrence of the event which a violated standard is designed to prevent. Points shall be assessed according to the following schedule:

Probability of Occurrence	Points
None	0
Insignificant	1-4
Unlikely	5-9
Likely 10-14	
Occurred	15

(B) Extent of Potential or Actual Damage. The Commission shall assign up to 15 points based on the extent of the potential or actual damage, in terms of area and impact on the public or environment, as follows:

(i) If the damage or impact which the violated standard is designed to prevent would remain within the coal exploration, development or permit area, the Commission shall assign zero to seven points, depending on the duration and extent of the damage or impact.

(ii) If the damage or impact which the violated standard is designed to prevent would extend outside the coal exploration, development or permit area, the Commission shall assign eight to 15 points, depending on the duration and extent of the damage or impact.

(C) Alternative. In the case of violation of an administrative requirement, such as a requirement to keep records, the Commission shall, in lieu of §6705(b)(2)(A) and (B), assign up to 15 points for seriousness, based upon the extent to which enforcement is obstructed by the violation.

(3) Negligence

(A) The Commission shall assign up to 25 points based on the degree of fault of the person to whom the notice or order was issued in causing or failing to correct the violation, condition or practice which led to the notice or order either through act or omission. Points shall be assessed as follows:

(i) A violation which occurs through no negligence shall be assigned no penalty points for negligence.

(ii) A violation which is caused by negligence shall be assigned 12 points or less, depending on the degree of negligence.

(iii) A violation which occurs through a greater degree of fault than negligence shall be assigned 13 to 25 points, depending on the degree of fault.

(B) In determining the degree of negligence involved in a violation and the number of points to be assigned, the following definitions apply:

(i) No Negligence–an inadvertent violation which was unavoidable by the exercise of reasonable care.

(ii) Negligence–the failure of a permittee to prevent the occurrence of any violation of his or her permit or any requirement of the act or these regulations due to indifference, lack of diligence, or lack of reasonable care, or the failure to abate any violation of such permit or the act due to indifference, lack of diligence or lack of reasonable care.

(iii) A Greater Degree of Fault than Negligence–reckless, knowing or intentional conduct.

(C) In calculating points to be assigned for negligence, the acts of all persons working on the coal exploration, development or surface coal mining and reclamation site shall be attributed to the person to whom the notice or order was issued, unless that person establishes that they were acts of deliberate sabotage.

(4) Good Faith in Attempting to Achieve Compliance

(A) The Commission shall add points on the degree of good faith of the person to whom the notice or order was issued in attempting to achieve rapid compliance after notification of the violation. Points shall be assigned as follows:

Degree of Good Faith	Points
Rapid Compliance	-1 to -10
Normal Compliance	0

(B) The following definitions shall apply under §6705(b)(4)(A):

(i) Rapid Compliance–that the person to whom the notice or order was

issued took extraordinary measures to abate the violation in the shortest possible time and that abatement was achieved before the time set for abatement.

(ii) Normal Compliance–the person to whom the notice or order was issued abated the violation within the time given for abatement.

(C) If the consideration of this criterion is impractical because of the length of the abatement period, the assessment may be made without considering this criterion and may be reassessed after the violation has been abated.

§6707. Determination of Amount of Penalty

The Commission shall determine the minimum amount of any civil penalty by converting the total number of points assigned under §6905 to a dollar amount, according to the following schedule:

Points	Dollars
1	20
2	40
3	60
4	80
5	100
6	120
7	140
8	160
9	180
10	200
11	220
12	240
13	260
14	280
15	300
16	320
17	340
18	360

Points	Dollars
19	380
20	400
21	420
22	440
23	460
24	480
25	500
26	600
27	700
28	800
29	900
30	1,000
31	1,100
32	1,200
33	1,300
34	1,400
35	1,500
36	1,600

Points	Dollars
37	1,700
38	1,800
39	1,900
40	2,000
41	2,100
42	2,200
43	2,300
44	2,400
45	2,500
46	2,600
47	2,700
48	2,800
49	2,900
50	3,000
51	3,100
52	3,200
53	3,300
54	3,400

Points	Dollars
55	3,500
56	3,600
57	3,700
58	3,800
59	3,900
60	4,000
61	4,100
62	4,200
63	4,300
64	4,400
65	4,500
66	4,600
67	4,700
68	4,800
69	4,900
70 (and above)	5,000

§6709. Assessment of Separate Violations for Each Day

(a) The Commission may assess separately a civil penalty for each day from the date of issuance of the notice of violation or cessation order to the date set for abatement of the violation. In determining whether to make such an assessment, the Commission shall consider the factors listed in §6705 and may consider the extent to which the person to whom the notice or order was issued gained any economic benefits as a result of a failure to comply. For any violation which continues for two or more days and which is assigned more than 70 points under §6705(b), the Commission shall assess a civil penalty for a minimum of two separate days.

(b) Whenever a violation contained in a notice of violation or cessation order has not been abated within the abatement period set in the notice or order or as subsequently extended under section 53-9-69(1) of the act, a civil penalty of not less than $750 shall be assessed for each day during which such failure continues, except that, if the person to whom the notice or order was issued initiates review proceedings with respect to the violation, the abatement period shall be extended as follows:

(1) If suspension of the abatement requirements of the notice or order is ordered in a temporary relief proceeding, after a determination that the person to whom the notice or order was issued will suffer irreparable loss or damage from the application of the requirements, the Commission shall modify the abatement order to state that the period permitted for abatement shall not end until the date on which the Commission issues a final order with respect to the violation in question.

(2) If the person to whom the notice or order was issued initiates review proceedings under §53-9-69(1)(e) with respect to the violation, in which the obligations to abate are suspended by the Commission or a court subsequently reviewing the Commission's actions, the daily assessment of a penalty shall not be made for any period before entry of a final order by the court.

(3) Such penalty for the failure to abate the violation shall not be assessed for more than 30 days for each such violation. If the permittee has not abated the violation within the 30-day period, the Commission shall take appropriate action pursuant to §§53-9-55 (4), 53-9-57, 53-9-69 (1)(d), and 53-9-69 (4) within 30 days to ensure that abatement occurs or to ensure that there will not be a reoccurrence of the failure to abate.

§6711. Waiver of Use of Formula to Determine Civil Penalty

(a) The Commission, upon its own initiative, at the request of the Department, or upon written request received within 15 days of issuance of a notice of violation or a cessation order, may waive the use of the formula contained in §§6705 and 6707 to set the civil penalty, if the Commission determines that, taking into account exceptional factors present in the particular case, the penalty is demonstrably excessive or inadequate. Cause for waiving the formula in order to increase the penalty may include, solely by way of example and without limitation, a

demonstration that the violation occurred in willful and knowing disregard of any law, regulation, order, or permit condition, a demonstration that the violation caused significant harm to human health and/or the environment, or a demonstration that the violator incurred significant economic benefit as a result of the noncompliance. However, the Commission shall not waive the use of the formula or reduce the proposed assessment on the basis of an argument that a reduction in the proposed penalty could be used to abate violations of the act, these regulations, or any condition of any permit or exploration approval. The basis for every waiver shall be fully explained and documented in the records of the case.

(b) If the Commission waives the use of the formula, it shall use the criteria set forth in §6705(b) and in §49-17-43 to determine the appropriate penalty. When the Commission has elected to waive the use of the formula, it shall give a written explanation of the basis for the assessment made to the person to whom the notice or order was issued.

§6713. Procedures for Assessment of Civil Penalties

(a) Within 15 days of service of a notice or order, the person to whom it was issued may submit written information about the violation to the Department and to the inspector who issued the notice of violation or cessation order. The Commission shall consider any information so submitted in determining the facts surrounding the violation and the amount of the penalty.

(b) The Department shall serve a copy of the proposed assessment and of the worksheet showing the computation of the proposed assessment on the person to whom the notice or order was issued, by certified mail, within 30 days of the issuance of the notice or order. If the mail is tendered at the address of that person set forth in the sign required under §5301, or at any address at which that person is in fact located, and he or she refuses to accept delivery of or to collect such mail, the requirements of this Subsection shall be deemed to have been complied with upon such tender.

(c) Failure by the Department to serve any proposed assessment within 30 days shall not be grounds for dismissal of all or part of such assessment unless the person against whom the proposed penalty has been assessed:

(1) proves actual prejudice as a result of the delay; and

(2) makes a timely objection to the delay. An objection shall be timely only if made in the normal course of administrative review.

(d) Unless the Department and the permittee reach agreement on the amount of the penalty, the Department shall issue a complaint letter pursuant to § 53-9-55(1) and (2) scheduling the matter for a formal hearing before the Commission.

(e) The order of the Commission in the matter shall determine the penalty, if any, shall state the Commission's findings of fact and conclusions of law used as a basis for assessing the penalty, if any, and shall determine the date the penalty is due to be paid by the permittee.

(f) Any party aggrieved by the decision of the Commission may appeal the matter pursuant to §§ 53-9-77 and 53-9-55(3). Upon the issuance of an order finding that a violation has occurred, the person found to be in violation s shall have thirty (30) days to pay the proposed penalty in full or, if the person wishes to appeal either the amount of the penalty or the fact of the violation or both, to forward the proposed amount as a penalty payment bond to the executive director for placement in as escrow account. The executive director shall forward any money submitted for placement in an escrow account that is a fully insured interest-bearing account. If, through administrative or judicial review of the violation or proposed penalty, the Commission or a court of appropriate jurisdiction determines that no violation occurred or that the amount of the penalty should be reduced, the executive director shall within thirty (30) days remit the appropriate amount to the person with any interest earned on the money while in escrow. The rate of interest shall be the prevailing Department of Treasury rate. Failure to forward the proposed penalty amount to the executive director within thirty (30) days shall result in a waiver of all legal rights to contest the violation or the amount of the penalty.

Chapter 69. Individual Civil Penalties

§6901. When an Individual Civil Penalty May Be Assessed

The Commission may assess an individual civil penalty against any corporate director, officer or agent of a corporate permittee who knowingly and willfully authorized, ordered or carried out a violation, failure or refusal. The Commission shall not assess an individual civil penalty in situations resulting from a permit violation by a corporate permittee until a cessation order has been issued by the Commission to the corporate permittee for the violation, and the cessation order has remained unabated for thirty (30) days.

§6903. Amount of Individual Civil Penalty

(a) In determining the amount of an individual civil penalty assessed under §6901, the Commission shall consider the criteria specified in §49-17-43 and §53-9-55 (2), as well as the following:

(1) the individual's history of authorizing, ordering or carrying out previous violations, failures or refusals at the particular surface coal mining operation;

(2) the seriousness of the violation, failure or refusal (as indicated by the extent of damage and/or the cost of reclamation), including any irreparable harm to the environment and any hazard to the health or safety of the public; and

(3) the demonstrated good faith of the individual charged in attempting to achieve rapid compliance after notice of the violation, failure or refusal.

(b) The penalty shall not exceed $25,000 for each violation. Each day of a continuing violation may be deemed a separate violation and the Commission may assess a separate individual civil penalty

for each day the violation, failure or refusal continues, from the date of service of the underlying notice of violation, cessation order or other order incorporated in a final decision issued by the Commission until abatement or compliance is achieved.

§6905. Procedure for Assessment of Individual Civil Penalty

The Department and Commission shall follow the procedure set forth in § 6713 in the assessment of the individual civil penalty.

§6907. Payment of Penalty

(a) If an individual does not appeal the Commission's order imposing an individual civil penalty, the penalty shall be due ten (10) day from the issuance of the order.

(b) If an individual named in a notice of proposed individual civil penalty assessment files a petition for review, the penalty shall be due ten (10) days after issuance by the reviewing court of a judgment affirming the penalty.

Chapter 71. Petitions for Award of Costs and Expenses

§7101. Who May File

Any person may file a petition for award of costs and expenses including attorney's fees reasonably incurred as a result of that person's participation in any administrative proceeding under the act which results in a final order being issued by the Commission or in a permit action or bond release action being taken by the Permit Board.

§7103. Where to File; Time for Filing

The petition for an award of costs and expenses including attorneys' fees must be filed with the Commission or Permit Board within 45 days of receipt of such order or of notice of such permit action or bond release action. Failure to make a timely filing of the petition may constitute a waiver of the right to such an award.

§7105. Contents of Petition

(a) A petition filed under this Section shall include the name of the person from whom costs and expenses are sought and the following shall be submitted in support of the petition:

(1) an affidavit setting forth in detail all costs and expenses including attorneys' fees reasonably incurred for, or in connection with, the person's participation in the proceeding;

(2) receipts or other evidence of such costs and expenses; and

(3) where attorneys' fees are claimed, evidence concerning the hours expended on the case, the customary commercial rate of payment for such services in the area, and the experience, reputation and ability of the individual or individuals performing the services.

§7107. Answer

Any person served with a copy of the petition shall have 30 days from service of the petition within which to file an answer to such petition.

§7109. Who May Receive an Award

Appropriate costs and expenses including attorneys' fees may be awarded:

(a) to any person from the permittee, if the person initiates any administrative proceedings reviewing enforcement actions, upon a finding that a violation of the act, regulations or permit has occurred, or that an imminent hazard existed, or to any person who participates in an enforcement proceeding where such a finding is made if the Commission determines that the person made a substantial contribution to the full and fair determination of the issues and that prior to the person's involvement, the Department had not commenced or was not diligently pursuing an administrative or civil enforcement action regarding the matter, which may include an inspection of the surface coal mining and reclamation operation in response to a complaint;

(b) to any person other than a permittee or his representative from the Department, if the person initiates or participates in any proceeding under the act, upon a finding by the Commission or Permit Board, as appropriate, that the person made a substantial contribution to a full and fair determination of the issues and that the person substantially prevailed in the proceeding;

(c) to a permittee from the Department when the permittee demonstrates and the Commission finds that the Department issued or recommended that the Commission issue an order of cessation, a notice of violation, or an order to show cause why a permit should not be suspended or revoked, in bad faith and for the purpose of harassing or embarrassing the permittee;

(d) to a permittee from any person where the permittee demonstrates that the person initiated an administrative proceeding under the act or participated in such a proceeding in bad faith for the purpose of harassing or embarrassing the permittee; or

(e) to the Department where it demonstrates that any person applied for administrative or judicial review of a Department, Permit Board, or Commission decision made under the act or that any party participated in such a proceeding in bad faith and for the purpose of harassing or embarrassing the government.

§7111. Awards

An award under these Sections may include:

(a) all costs and expenses including attorneys' fees and expert witness fees, reasonably incurred as a result of initiation and/or participation in a proceeding under the act; and

(b) all costs and expenses, including attorneys' fees and expert witness fees, reasonably incurred in seeking the award.

§7113. Appeal

Any person aggrieved by a decision concerning the award of costs and expenses in an administrative proceeding under this act may appeal such award pursuant to § 53-9-77.

APPENDIX A

TO THE REGULATIONS GOVERNING SURFACE COAL MINING IN MISSISSIPPI

REVEGETATION SUCCESS STANDARDS

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Chapter 1. Phase III Revegetation Success Standards for Commercial Forest Land

I. Introduction

II. General Revegetation Requirements

III. Success Standards and Measurement Frequency

A. Ground Cover

B. Tree/Shrub Stocking

IV. Sampling Procedures

A. Random Sampling

B. Sampling Techniques

C. Sample Adequacy

V. Data Analysis

VI. Maps

VII. Mitigation Plan

I. Introduction

This policy describes the criteria and procedures for determining Phase III success standards for areas being restored to commercial forest land.

Revegetation success on commercial forest land must be determined on the basis of the following conditions:

A. General revegetation requirements of the approved permit;

B. Ground cover; and

C. Tree/shrub stocking and survival.

The permittee is responsible for measuring the vegetation and for submitting the data to the Department for analysis. Measurements of the vegetation must be made in accordance with the procedures outlined in this document.

II. General Revegetation Requirements

The general requirements for revegetation shall be considered satisfied upon the determination by the Permit Board that:

A. The permittee has established on regraded areas and all other disturbed areas, except water areas, surface areas of roads and areas around buildings that are approved as part of the postmining land use, a vegetative cover that is in accordance with the approved reclamation plan in the approved permit and that is:

1. diverse, effective, and permanent;

2. comprised of species native to the area, or of introduced species which are necessary to achieve the postmining land use and approved by the regulatory authority;

3. at least equal in extent of cover to the natural vegetation of the area; and

4. capable of stabilizing the soil surface from erosion.

B. The Permit Board must also make the determination that the reestablished plant species are:

1. compatible with the approved postmining land use;

2. of the same seasonal characteristics of growth as the original vegetation;

3. capable of self-regeneration and plant succession;

4. compatible with the plant and animal species of the area; and

5. allowed for planting under applicable state and federal laws and regulations which control the growth of poisonous and noxious plants and introduced species.

III. Success Standards and Measurement Frequency

A. Ground Cover

1. Ground cover shall be considered acceptable if it is at least equal to ninety percent of the approved success standard at a ninety percent statistical confidence level (one sided test with a .10 alpha error) for the last year of the five year responsibility period. The success standard for commercial forest land ground cover shall be a ground cover density of seventy percent .

2. The aggregate of areas with less than seventy percent ground cover must not exceed five percent of the release area. These areas must not be larger than 1 acre and must be completely surrounded by desirable vegetation which has a ground cover of seventy percent. Areas void of desirable vegetation may not be larger than one quarter of an acre and must be surrounded by desirable vegetation which has a ground cover of seventy percent.

3. The ground cover shall be sampled once during the last year of the five year responsibility period.

4. No more than thirty-five percent of the stand can consist of volunteer species not listed in Addendum T.

B. Tree and Shrub Stocking Rate

1. The stocking rate for trees and shrubs shall be determined on a specific permit basis with consultation and approval of the Mississippi Forestry Commission. The five year responsibility period may begin when the following requirements are met.

a. The tree or shrub shall be in place at least two growing seasons.

b. The tree or shrub shall be alive and healthy.

c. The tree or shrub shall have at least one-third of its length in live crown.

d. The number of woody plants established shall be equal to or greater than ninety percent of the stocking rate approved in the permit.

2. The tree and shrub stocking rate shall be sampled again during the last year of the five year responsibility period.

3. The stocking shall be considered successful if it is equal to or greater than ninety percent of the stocking rate approved in the permit with ninety percent statistical confidence at the time of final bond release. At least eighty percent of the trees and shrubs used to determine success shall have been in place for sixty percent of the applicable minimum period of responsibility. The operator may not interplant trees within two years of doing sampling for final release.

IV. Sampling Procedures

A. Random Sampling

1. To assure that the samples truly represent the vegetative characteristics of the whole release or reference area, the permittee must use methods that will provide 1) a random selection of sampling sites, 2) a sampling technique unaffected by the sampler's preference, and 3) sufficient samples to represent the true mean of the vegetation characteristics.

2. Sampling points shall be randomly located by using a grid overlay on a map of the release or reference area and by choosing horizontal and vertical coordinates as described in Addendum A. Each sample point must fall within the release area boundaries and be within an area having the vegetative cover type being measured. Additionally, if the release area does not consist of a single unit, at least one sample point must be measured in each noncontiguous unit.

3. The permittee shall notify the Office of Geology ten days prior to conducting sampling or other harvesting operations to allow any authorized representative of the Department an opportunity to monitor the sampling procedures.

B. Sampling Techniques

1. Ground cover shall be measured as the area covered by the combined aerial parts of the plant species approved in the permit, and the leaf litter that is produced naturally onsite, expressed as a percentage of the total area of measurement. Ground cover derived from parts of the plant species approved in the permit, and the leaf litter that is produced naturally onsite may be up to ninety-five percent of the total.

2. Trees and shrubs shall be measured as the number of countable approvable woody stems, expressed as stems per acre for the total area of measurement.

3. Because ground cover and tree/shrub density are measured differently, the techniques for sampling each must also be different. For ground cover, the permittee

will count and identify species using a line-point transect method. Trees and shrubs will be measured using randomly selected one-fiftieth of an acre sampling circles. Refer to Addenda A, F and I.

4. Each transect or sampling circle must be entirely within a homogeneous area that accurately represents the vegetative cover type being measured. Samples must be taken in pure vegetation types and not in transition zones between adjacent types. Also, the sample sites must be located so they avoid the effects of neighboring vegetation types, roads, stream courses, ponds, etc.

a. Line-Point Transect (Ground Cover)

A line-point transect shall be a series of 100 points spaced one foot apart along a straight line. The permittee shall establish a transect at each of the randomly selected sampling points. The direction of the transect shall also be determined randomly. This can be done as easily as spinning a pencil on a clipboard or throwing the pencil up in the air and using the direction where it points.

The permittee shall classify the ground cover at each 1-foot interval along the entire length of the transect (starting at 1 foot from the random point).

The area of measurement shall be a line projected downward and perpendicular to the ground at each one foot interval (100 in total).

At each point along the transect, ground cover shall be classified by species as acceptable or unacceptable as follows, except that as long as there is sufficient cover to adequately control erosion, any volunteer species not on the state and Federal Noxious Weeds List (Addendum T) is acceptable:

Acceptable	Unacceptable
Vegetation approved in permit	Rock or bare ground
Dead vegetation or litter from acceptable species	Vegetation and litter from list in Addendum T

All data gathered from the line-point transects shall be recorded in the format shown in Addendum C, Part 2.

b. Sampling Circles (Trees/Shrubs)

A sampling circle shall be a round area one-fiftieth of an acre in size (16.7 feet in radius). The permittee shall establish a sampling circle at each of the randomly selected sampling points, such that the center of the sampling circle is the random point. Permittee may draw the circle by attaching a 16.7 foot string to a stake fixed at the random point and then sweeping the end of the string (tightly stretched) in a circle around the stake. The permittee shall count all living trees and shrubs within each of the sampling circles. In more mature tree/shrub areas, the stakes may need to be extended to elevate the string above the growth.

To count as a living tree or shrub, the tree or shrub must be alive and healthy; must have been in place for at least two years; and must have at least one-third of its length in live crown. At the time of bond release, 80 percent must have been in place for three years. The operator may not replant or interplant within two years of sampling for final release.

All data gathered from the sampling circles shall be recorded in the format presented in Addendum F.

C. Sample Adequacy.

Refer to Addenda I and K for sample adequacy.

V. Data Analysis

If the data show that revegetation success has been met, the permittee shall submit the data to the Department for review in the format shown in Addenda C and F within four months of collection.

When the data indicate that the average ground cover and/or tree and shrub average stocking density is insufficient, but close to the standards, the permittee may submit the calculations to the Department that demonstrates that the vegetation is acceptable when statistically compared to the standards using a 90 percent statistical confidence interval. Addenda E and H explain how the statistical analysis will be performed.

VI. Maps

A. Whenever a new Phase III plan is submitted to the Permit Board, it must be accompanied by maps showing the location of the area proposed for release covered by the plan.

B. Whenever data from a previously approved plan are submitted to the Permit Board, it

must be accompanied by maps showing:

1. The location of each transect and sample frame point.

2. The area covered by the sampling.

3. All permit boundaries.

VII. Mitigation Plan

Ground cover must be greater than or equal to seventy percent coverage, and tree and shrub stocking must achieve the standards set in the permit, the fifth year following completion of the initial seeding. If they do not achieve these standards, the permittee must submit a mitigation plan to the Permit Board which includes the following:

1. a statement outlining the problem;

2. a discussion of what practices, beyond normal agronomic practices, the operator intends to use to enable the area to finally meet the release standards; and

3. A new Phase III liability release plan.

If renovation, soil substitution or any other practice which constitutes augmentation is employed, the five-year responsibility period begins again.

Chapter 2. Phase III Revegetation Success Standards for Cropland

I. Introduction

II. Success Standards and Measurement Frequency

- A. Ground Cover
- B. Crop Production
- C. Selection of Success Standard

III. Sampling Procedures

- A. Random Sampling
- B. Sampling Techniques
  1. Sampling Frames
  2. Whole Area Harvesting
  3. Manual Sampling on Row Crops
- C. Representative Test Plots
- D. Reference Areas
- E. Other Requirements for Productivity Testing on Cropland

IV. Data Submission and Analysis

V. Maps

VI. Mitigation Plan

I. Introduction

This policy describes the criteria and procedures for determining Phase III success standards for areas being restored to cropland.

Ground cover and soil productivity success of revegetation on cropland, shall be determined on the basis of crop production. The permittee is responsible for determining and measuring production, and submitting this data to the Department for evaluation. Procedures for making these determinations are described in this document.

II. Success Standards and Measurement Frequency

A. General Revegetation Requirement for Ground Cover

1. Following cropland soil replacement, the soil surface shall be stabilized with a vegetative cover or other means that effectively controls soil loss by wind and water erosion.

2. Ground cover shall consist of the species or species mixture which has been approved in the permit. Unacceptable plant species are listed in Addendum T. Whenever the cropland is planted to a perennial cover, then up to thirty-five percent of the cover may consist of volunteer species not listed in Addendum T.

B. Crop Production on Cropland

1. The success standard for cropland shall be determined on the basis of crop production. Crop production shall be considered successful if it is not less than ninety percent of the production of the approved success standard with a ninety percent statistical confidence interval.

Crop production shall be measured for any two (2) of the last four (4) years of the five (5) year responsibility period. Hay may be used twice, but other crops commonly grown in the area may also be used.

2. Crop Production for cropland shall be determined by one of the following methods:

a. Randomly selected representative samples, see Addenda A, B, J, N, Q, and S.

b. Whole site harvest, see Addenda D, O, P, Q, R, and S.

c. Representative test plots, see Addenda A, B, D, J, O, P, Q, R, and S.

C. Selection of Success Standard

1. The sampling techniques shall use a ninety percent statistical confidence interval (i.e., one sided test with a .10 alpha error).

2. Whenever production is equal to or exceeds ninety percent of the approved standard, the statistical confidence interval test does not have to be performed.

3. Areas selected for the success standard or reference area for production shall:

a. consist of similar plant species and diversity as approved in the permit.

b. currently be managed under the same land use designation as the proposed mined release area.

c. consist of soils of the same or similar texture, slope phase, similar soil series, and be in the same land capability class.

d. receive the same high level of management using acceptable, approved practices common to the area.

e. be located in the general vicinity of the mined test area to eliminate weather variations.

4. If the permittee chooses to use a technical standard for determination of crop productivity, the permittee shall use the most current United States Department of Agriculture/Natural Resources Conservation Service soil survey for the county where the mining operation is located. Actual crop specific yield will be those from Table 5 of the county soil survey.

5. County average yields will vary from year to year because of fluctuations in the local weather patterns. Because of this variability, target yields must be adjusted by the

USDA/NRCS each year that data is submitted. The target yields shall be representative of yields expected when using high management practices common to the area.

III. Sampling Procedures

A. Random Sampling

1. To assure that the samples truly represent the vegetative characteristics of the whole release and reference area, the permittee must use methods that will provide 1) a random selection of sampling sites, 2) a sampling technique unaffected by the sampler's preference, and 3) sufficient samples to represent the true mean of the vegetation characteristics.

2. Sampling points shall be randomly located by using a grid overlay on a map of the release or reference area and by choosing horizontal and vertical coordinates as described in Addendum A. Each sample point must fall within the release or reference area boundaries and be within an area having the vegetative cover type being measured. Additionally, if the release area does not consist of a single unit, at least one sample point must be measured in each noncontiguous unit.

3. The permittee shall notify the Office of Geology ten days prior to conducting sampling or other harvesting operations to allow any authorized representative of the Department an opportunity to monitor the sampling procedures.

B. Sampling Techniques

1. Sampling Frames (Forage Production)

A sampling frame shall be an enclosure measuring 24" x 11-1/2" capable of enclosing the sample location. A sample location shall be established at each of the randomly chosen sites, such that the center of the sampling frame is the random point. The permittee shall clip all the biomass within the sampling frame 2" above ground level. The biomass to be clipped shall be from all plant species growth whose base lies within the sampling frame. This biomass shall then be weighed and recorded. As each frame is clipped and weighed, the biomass shall be put into a bag for later oven drying. Samples shall be oven dried to a constant weight and re-weighed to determine dried weight. All data collected from the clippings within the sampling frame shall be recorded in the format presented in Addendum B.

2. Whole Area Harvesting (Forage Production or Row Crops)

If whole release area harvesting is chosen as the method for data collection, the entire area or representative test plots shall be harvested and the system as outlined in Addenda D, O, P, and Q shall be used for data analysis. This entails counting all bales produced on the harvested areas and multiplying this number by the average weight of a randomly selected number of bales. The number of bales to count and weigh for any site would consist of ten percent, or fifteen large round bales, whichever is greater; or ten percent or fifteen small round bales whichever is greater and converted to lbs/ac by taking their average weight and multiplying that figure times the total number of bales, divided by the number of acres harvested.

To determine which bales to weigh, randomly select a number from one to ten then count and weigh every tenth bale thereafter until the minimum number or ten percent of the bales have been weighed. The first and last bale of any noncontiguous field or site should not be weighed. The bales shall be counted, but if the random number falls on either of the two bales mentioned, either advance one bale or select the immediate bale previous to the last bale produced.

If row crops are being used, the entire test plot will be harvested.

See Addenda I and J for sample adequacy.

3. Manual Sampling on Row Crops

If weather conditions or other factors prevent mechanical harvesting, the Permit Board may approve a manual sampling method for row crops. Generally, this will involve harvesting a statistically adequate number of randomly chosen measured row lengths on the reference plot and the test plot. Operators will not be allowed to use this system without the prior approval of the Permit Board. Testing procedures will follow Addendum U for this sampling method.

C. Establishment of Representative Test Plots

The permittee may establish and harvest test plots to prove productivity if the permittee can demonstrate that the test plot statistically represents the cropland areas in the Phase III release area of which it is a part. Representative test plots may not represent more than 400 acres. This can be demonstrated as follows:

Step 1 - Finding Statistically Representative Plots

1. In order for this system to be used, all the cropland areas which are being considered for release must be in grass/legumes.

2. After twelve months have elapsed of the five year responsibility period, the entire cropland area shall be sampled for hay production using the sample frame procedure. A statistically adequate number of samples must be taken over the entire cropland area, as outlined in Addenda A and J.

3. Additionally, several subareas of the cropland shall be chosen as possible candidates for the representative test plots. These subareas must consist of a minimum of three plots, no smaller than one acre each and total at least five percent of the entire cropland acres or a combined total of four acres, whichever is greater, of the area for which Phase III release is desired. These areas shall also be sampled using the sample frame method and a statistically adequate number of samples at a 0.1 alpha level.

4. Then, the data from the sample frame procedure of the entire cropland area shall be statistically compared to the chosen subplots using a t-test, to determine if the subplots are truly representative of the entire cropland area. If the first chosen subplot fails the test, the next chosen subplot shall be compared, and so on, until the required number of plots are found that have statistically equal production to the entire cropland area. Variation of the subplots should not vary ten percent more or less than the entire cropland area being considered representative of the release area. It is suggested that enough subplots be chosen as prospective test plots to guarantee there will be adequate acreage to statistically represent production equal to the entire cropland area.

Step 2 - Use of the Test Plots

1. Once statistically representative test plots have been chosen, they shall become the test plots which will represent all the cropland in a particular bond release.

2. The level of management on the reclaimed area must be the same as the level of management on the area used to establish the success standard.

3. At harvest, the yields from the test plots shall be compared to the yields from the reference plot to determine if the test plot yields are equal to ninety percent or greater than the yield on the unmined cropland reference plot. The yield data from the test plots and reference plot shall be recorded on a form as outlined in Addendum D.

D. Reference Areas

Reference areas must be representative of soils, slope, aspect, and vegetation in the pre-mined permit area. However, in cases where differences exist because of the mixing of several soil series on the reclaimed area or unavailability of a reference area as herein

described, yields must be adjusted as outlined in Addendum Q. For ease of calculation, this adjustment shall always be made to the reference area yield.

Reference area crops must be under the same management as crops in the reclaimed cropland area. This means:

- the same seed, fertilizer, and pest management techniques shall be used;

- fertilizer rates shall be based on the same yield goal;

- the same tillage methods shall be used for seedbed preparation;

- the same planting and harvest dates, row spacing, and plant populations shall be used; and

- any other commonly used management techniques not listed above such as adequate weed and insect control may be used provided the cropland test sites and/or test plots, and the reference plot are treated identically.

Reference areas shall consist of a single plot (whole plot) at least four acres in size. Either statistically adequate subsampling or whole plot harvesting may be used to determine yields. All reference areas must have prior approval from the Permit Board before production data can be used.

Reference plot crop yields must be reasonably comparable to the county average for the given crop. Reference yields which are less than eighty percent of the county average are highly suspect and may be rejected.

Reference areas may be used as a standard for several mines or bond release areas in the vicinity, with prior approval of the Permit Board. Reference areas may be located on undisturbed acreage within permitted areas. If not so located, the permittee must obtain from the landowner(s) a written agreement allowing use of the property as a reference area and allowing right of entry for any authorized representative of the Department.

When release areas and reference plots fall on different soil series, adjustments must be made to compensate for the productivity difference. Section II of the NRCS Field Office Technical Guide shall be used for this purpose. For ease of calculation, this adjustment shall always be made to the reference area yield. Each reference plot sampling frame or whole field reference plot yield must be adjusted before yield comparison or t-test statistics may be calculated. See Addendum Q.

E. Other Requirements for Productivity Testing on Cropland.

Crops chosen for proving productivity on cropland must:

- be selected from crops commonly grown in the county. Hay may be used for both of the two years.

- be fertilized and top-dressed according to soil tests;

- be comprised of certified seed, preferably a cultivar which is resistant to common crop specific diseases (e.g., Phytophora root rot on soybeans).

- be properly inoculated with appropriate rhizobia. Herbaceous crops must be an approved grass or grass and legume mixture;

- receive the same management practices as crops on unmined cropland in the surrounding area. This includes proper application and timing of herbicides and insecticides in general use in the surrounding area;

- have row crop yields adjusted for moisture (Addenda D and R). Moisture content shall be documented by the individual performing the test and the method used shall be identified. Furthermore, all crop yields must be verified by an individual who is knowledgeable of agronomic practices but is not directly affiliated with the mining company. An affidavit, which must be signed by the individual verifying crop yields, must accompany any submitted yield data. Refer to Addendum S.

If row crops are used, all mechanically harvested row crop yield data must be accompanied by:

- a weight ticket from a government certified scale, which includes the name of the scale operator;

- a completed Crop Surveyor Affidavit as shown in Addendum S;

- a statement of the crop moisture content, the system used to make that determination, and the name of the operator;

- copies of the soil amendment test reports and amounts of amendments applied.

IV. Data Submission and Analysis

Refer to Addendum U for procedure to manually sample row crops. If the data show that the average production success has been met, the permittee shall submit the data to the Department in the format shown in Addenda B, D, and O.

When the data indicate that the average production was insufficient, but close to the standards, the permittee may submit the data to the Department to determine if the production was acceptable when statistically compared to the standards using a t-test at a 90 percent statistical confidence interval. (See Addenda N and P.)

Row crop and raw sampling frame yield data from reclaimed (mined) areas and reference areas must be adjusted for moisture. (See Addendum R)

V. Maps

A. Whenever a new Phase III plan is submitted to the Permit Board, it must be accompanied by maps showing:

1. the location of the area proposed for release covered by the plan;

2. the location of test and reference plots; and

3. all permit boundaries.

B. Whenever data from a previously approved plan are submitted to the Permit Board it must be accompanied by maps showing:

1. the location of test and reference plots;

2. the location of each transect and sample frame point;

3. the area covered by the sampling; and

4. all permit boundaries.

VI. Mitigation Plan

Productivity must meet or exceed these standards at least two sampling years by the fifth year. If productivity is not achieved by these dates, the permittee must submit a mitigation plan to the Permit Board which includes the following:

A. a statement outlining the problem;

B. a discussion of what practices, beyond normal farming practices, the operator intends to use to enable the area to finally meet the release standards; and

C. a new Phase III liability release plan.

If renovation, soil substitution, or any other practice which constitutes augmentation is employed, the five-year responsibility period shall restart when the mitigation plan is approved and the practices are completed.

Chapter 3. Phase III Revegetation Success Standards for Industrial or Commercial Land

I. Introduction

II. General Revegetation Requirements

III. Success Standards and Measurement Frequency

A. Ground Cover

B. Sampling Period and Frequency

IV. Sampling Procedures

A. Random Sampling

B. Sampling Techniques

C. Sample Adequacy

V. Data Analysis

VI. Maps

VII. Mitigation Plan

I. Introduction

This policy describes the criteria and procedures for determining Phase III success standards for areas being restored to an industrial or commercial land use.

These standards do not apply to areas such as buildings, parking lots, and roads which are part of an industrial or commercial land use and are not intended to be vegetated. The revegetation standards described here only apply to those parts of the industrial or commercial land use which will require vegetative erosion control.

Revegetation success on industrial or commercial land use areas must be determined on the basis of the following conditions:

- general revegetation requirements of the approved permit; and
- ground cover density.

The permittee is responsible for measuring the vegetation and for submitting the data to the Department for analysis. Measurements of the vegetation must be made in accordance with the procedures outlined in this document.

II. General Revegetation Requirements

The general requirements for revegetation shall be considered satisfied upon the determination by the Department that:

A. The permittee has established on regraded areas and all other disturbed areas, except water areas, and surface areas of roads and areas around buildings that are approved as part of the postmining land use, a vegetative cover that is in accordance with the reclamation plan in the approved permit and that is:

1. diverse, effective, and permanent;

2. comprised of species not listed in Addendum T, and which are necessary to achieve the postmining land use and approved by the regulatory authority;

3. at least equal in extent of cover to the natural vegetation of the area; and

4. capable of stabilizing the soil surface from erosion.

B. The Department must also make the determination that the reestablished plant species are:

1. compatible with the approved postmining land use;

2. of the same seasonal characteristics of growth as the original vegetation;

3. capable of self-regeneration and plant succession;

4. compatible with the plant and animal species of the area; and

5. allowed for planting under applicable State and Federal laws and regulations which control the growth of poisonous and noxious plants and introduced species. See Addendum T.

III. Success Standards and Measurement Frequency

A. Ground Cover

1. In areas developed for industrial or commercial land use within two years of regrading, ground cover shall not be less than seventy percent at a ninety percent statistical confidence level.

2. If the area is not developed for industrial or commercial use within two years of regrading, any areas that are vegetated must be designated with another acceptable land use and evaluated under the appropriate success standard.

3. The aggregate of areas with less than seventy percent ground cover must not exceed five percent of the release area. These areas must not be larger than one acre and must be completely surrounded by desirable vegetation which has a ground cover of seventy percent. Areas void of desirable vegetation may not be larger than one quarter of an acre and must be surrounded by desirable vegetation which has a ground cover of seventy percent.

4. No more than thirty percent of the stand can be approved species not listed in the permit.

B. Sampling Period and Frequency

1. Ground cover shall be sampled once during the last year of the five-year responsibility period.

2. The permittee shall notify the Office of Geology ten days prior to conducting sampling or other harvesting operations to allow any authorized representative of the Department an opportunity to monitor the sampling procedures.

IV. Sampling Procedures

A. Random Sampling

1. To assure that the samples truly represent the vegetative characteristics of the whole release area, the permittee must use methods that will provide 1) a random selection of sampling sites, 2) a sampling technique unaffected by the sampler's preference, and 3) sufficient samples to represent the true mean of the vegetation characteristics.

2. Sampling points shall be randomly located by using a grid overlay on a map of the release area and by choosing horizontal and vertical coordinates as described in Addendum A. Each sample point must fall within the release area boundaries and be within an area having the vegetative cover type being measured. Additionally, at least one sample point must be measured in each noncontiguous unit, if the release area does not consist of a single unit.

B. Sampling Techniques

1. Ground cover shall be measured as the area covered by the combined aerial parts of the accepted plant species approved in the permit, and the litter that is produced naturally onsite, expressed as a percentage of the total area of measurement. Up to fifteen percent of the acceptable cover may be litter from acceptable plant species.

2. A line-point transect shall be a series of 100 points spaced one foot apart along a straight line. The permittee shall establish a transect at each of the randomly selected sampling points. The direction of the transect shall also be determined randomly. This can be done as easily as spinning a pencil on a clipboard, or throwing the pencil up in the air and using the direction where it points.

3. The permittee shall identify the species or type of ground cover at each one foot interval along the entire length of the transect (starting at one foot from the random point). The area of measurement shall be a line projected downward and perpendicular to the ground at each one foot interval (100 in total).

4. Each transect must be entirely within a homogeneous area that accurately represents the vegetative cover type being measured. Samples must be taken in pure vegetation types and not in transition zones between adjacent types. Also, the sample sites must be located so they avoid the effects of neighboring vegetation types, roads, stream courses, ponds, etc.

5. At each point along the transect, ground cover shall be classified by species as acceptable or unacceptable as follows, except that as long as there is sufficient cover to adequately control erosion, any volunteer species not on the state and Federal Noxious Weeds List (Addendum T) is acceptable:

Acceptable	Unacceptable
Vegetation approved in permit	Rock or bare ground
Dead vegetation or litter from acceptable species	Vegetation or litter from list in Addendum T

6. All data gathered from the line-point transects shall be recorded in the format shown in Addendum C.

C. Sample Adequacy

Refer to Addenda G, I and K for sample adequacy.

V. Data Analysis

A. If the data show that revegetation success has been met, the permittee shall submit the data to the Department for review in the format shown in Addendum C within four months of collection.

B. When the data indicate that the average ground cover density was insufficient, but close to the standards, the permittee may submit the data to the Department to determine if the vegetation is acceptable when statistically compared to the standards using a ninety

percent statistical confidence interval. Addendum L explains how the statistical analysis shall be performed.

VI. Maps

A. Whenever a new Phase III plan is submitted to the Permit Board, it must be accompanied by maps showing the location of the area proposed for release covered by the plan.

B. Whenever data from a previously approved plan is submitted to the Permit Board, it must be accompanied by maps showing:

1. the location of each transect;

2. the area covered by the sampling; and

3. all permit boundaries.

VII. Mitigation Plan

Ground cover must be greater than or equal to seventy percent coverage the fifth year following completion of the last augmented seeding. If it is not, the permittee must submit a Mitigation Plan to the Permit Board which includes the following:

A. a statement outlining the problem;

B. a discussion of what practices, beyond normal agronomic practices, the operator intends to use to enable the area to finally meet the release standards; and

C. a new Phase III liability release plan.

If any practice which constitutes augmentation is employed, the five-year responsibility period shall restart when the mitigation plan is approved and the practices are completed.

Chapter 4. Phase III Revegetation Success Standards for Pasture and Previously Mined Areas

I. Introduction

II. General Revegetation Requirements

III. Success Standards and Measurement Frequency

A. Ground Cover

B. Forage Production

C. Reference Area Requirements

IV. Sampling Procedures

A. Random Sampling

B. Sampling Techniques
1. Line Point Transect
2. Sampling Frames
3. Whole Area Harvesting

C. Representative Test Plots

D. Sample Adequacy

V. Data Submission and Analysis

VI. Maps

VII. Mitigation Plan

I. Introduction

This policy describes the criteria and procedures for determining Phase III ground cover and production success for areas being restored to pasture and previously mined areas.

Ground cover and production success on pasture must be determined on the basis of the following conditions:

- general revegetation requirements of the approved permit;
- ground cover density; and
- production.

The permittee is responsible for determining and measuring ground cover and production and submitting this data to the Department for evaluation. Procedures for making these determinations are described in this document.

For areas previously disturbed by mining that were not reclaimed to the standards of these regulations and that are remined or otherwise redisturbed by surface coal mining operations, as a minimum, the vegetative ground cover shall not be less than the ground cover existing before redisturbance and shall be adequate to control erosion. This ground cover standard must have been determined and incorporated into the permit prior to disturbance. There is no productivity standard.

II. General Revegetation Requirements

The general requirements for revegetation shall be considered satisfied upon the determination by the Department that:

A. The permittee has established on regraded areas and all other disturbed areas, except water areas, surface areas of roads and areas around buildings that are approved as part of the postmining land use, a vegetative cover that is in accordance with the reclamation plan in the approved permit and that is:

1. diverse, effective, and permanent;

2. comprised of species native to the area, or of introduced species which are desirable and allowable, not listed in Addendum T, and are necessary to achieve the postmining land use and approved by the regulatory authority;

3. at least equal in extent of cover to the natural vegetation of the area; and

4. capable of stabilizing the soil surface from erosion.

B. The Department must also make the determination that the reestablished plant species are:

1. compatible with the approved postmining land use;

2. of the same seasonal characteristics of growth as the original vegetation;

3. capable of self-regeneration and plant succession;

4. compatible with the plant and animal species of the area; and

5. allowed for planting under applicable state and federal laws and regulations which control the growth of poisonous and noxious plants and introduced species. See Addendum T.

III. Success Standards and Measurement Frequency

A. Ground Cover

1. Ground cover shall be considered acceptable if it is at least ninety percent of the approved success standard at a ninety percent statistical confidence level for any two of the last four years of the five year responsibility period. The success standard for ground cover shall be ninety percent density. Other approved success standards could be other areas that are representative of unmined lands in the area being reclaimed or through the use of technical guidance procedures published by the United States Department of Agriculture (USDA) or United States Department of Interior (USDI) for assessing ground cover and productivity.

Ground cover must be measured over each noncontiguous area which is proposed for release. The aggregate of areas with less than 90 percent ground cover must not exceed five percent of the release area. These areas must not be larger than one acre and must be completely surrounded by desirable vegetation which has a ground cover of ninety percent. Areas void of desirable vegetation may not be larger than one quarter of an acre and must be surrounded by desirable vegetation which has a ground cover of ninety percent.

2. Ground cover shall consist of the species mixture which has been approved in the original permit or an approved acceptable species mixture as recommended by the USDA/Natural Resources Conservation Service (NRCS) for use in that area. No more than fifteen percent of the stand can be approved species not listed in the permit. If the area was previously mined, thirty-five percent can be approved species not listed in the permit. See Addendum T for unacceptable plant species.

3. The sampling techniques for measuring success shall use a ninety percent statistical confidence interval (i.e., one sided test with a .10 alpha error). Whenever ground cover is equal to or exceeds the success standard, the statistical confidence interval test does not have to be determined.

4. Ground cover success and forage production success need not be met during the same year.

5. Ground cover shall be sampled twice during any two of the last four years of the five-year responsibility period to verify cover data.

B. Forage Production

Production shall be considered acceptable if it is at least ninety percent of the approved success standard, at a ninety percent statistical confidence level, for any two of the last four years of the five year responsibility period. If a reference area is used, the standard will be the annual crop yield for the reference area for the same year that the yield for the release area is being measured. If the permittee chooses to use a technical standard for determination of crop productivity, the permittee shall use the most current USDA/NRCS soil survey for the county where the mining operation is located. Actual crop specific yield will be from Table 5 of the county soil survey. See Addendum W.

C. Reference Area Requirements

1. Reference areas must be representative of soils, slope, aspect, and vegetation in the pre-mined permit area. In cases where differences exist because of mixing of several soil series on the reclaimed area or unavailability of a reference area as herein described, yields must be adjusted as outlined in Addendum Q.

Reference area pasture must be under the same management as pasture in the reclaimed area.

This means:

a. They must consist of similar plant species and diversity as approved in the permit;

b. They must be currently managed under the same land use designation as the proposed mined release area;

c. They must consist of soils in the same land capability class;

d. They must be located in the general vicinity to the mined test area to minimize weather fluctuations;

e. the same fertilizer and pest management techniques shall be used;

f. fertilizer rates shall be based on the same yield goal;

g. that, if the reference plot was mowed prior to sampling, the reclaimed area must also have been mowed at the same time to the same height;

h. identical harvest dates, row spacing, and plant populations shall be used; and

i. any other commonly used management techniques not listed above such as adequate weed and insect control may be used provided the pasture area and the reference plot are treated identically.

Reference areas shall consist of a single plot (whole plot) at least four acres in size. Either statistically adequate subsampling or whole plot harvesting may be used to determine yields.

Reference plot crop yields must be at a level which is reasonably comparable to the county average for the given crop. Reference plot yields which are less than eighty percent of the county average are highly suspect and may be rejected.

Reference areas may be used as a standard for several mines or bond release areas in the vicinity, with prior approval of the Permit Board. Reference areas may be located on undisturbed acreage within permitted areas. If not so located, the permittee must obtain from the landowner(s) a written agreement allowing use of the property as a reference area and allowing right of entry for any authorized representative of the Department.

2. When release areas and reference plots fall on different soil series, adjustments must be made to compensate for the productivity difference. Section II of the NRCS Field Office Technical Guide shall be used for this purpose. For ease of calculation, this adjustment shall always be made to the reference area yield. Each reference plot sampling frame or whole field reference plot yield must be adjusted before yield comparison or t-test statistics can be calculated. See Addenda B and O.

IV. Sampling Procedures

A. Random Sampling

1. To assure that the samples truly represent the vegetative characteristics of the whole release or reference area, the permittee must use methods that will provide:

a) a random selection of sampling sites,
b) a sampling technique unaffected by the sampler's preference, and
c) sufficient samples to represent the true mean of the vegetation characteristics.

2. Sampling points shall be randomly located by using a grid overlay on a map of the release or reference area and by choosing horizontal and vertical coordinates as described in Addendum A. Each sample point must fall within the release or reference area boundaries and be within an area having the vegetative cover type being measured. Additionally, at least one ground cover sample point must be measured in each noncontiguous unit, if the release area does not consist of a single unit.

3. The permittee shall notify the Office of Geology ten days prior to conducting sampling or other harvesting operations to allow any authorized representative of the Department an opportunity to monitor the sampling procedures.

B. Sampling Techniques

1. Line Point Transect (Ground Cover)

A line point transect shall be a series of 100 points spaced one foot apart along a straight line. The permittee shall establish a transect at each of the randomly selected sampling points. The direction of the transect shall also be determined randomly. This can be done as easily as spinning a pencil on a clipboard or throwing the pencil in the air and using the direction where it points.

Ground cover shall be measured as the area covered by the combined aerial parts of the accepted plant species and the litter that is produced naturally onsite, expressed as a percentage of the total area of measurement. Up to fifteen percent of acceptable cover may be litter from acceptable plant species.

The permittee shall classify the ground cover by species at each 1-foot interval along the entire length of the transect (starting one foot from the random point). The area of measurement shall be a line projected downward and perpendicular to the ground at each one foot interval (100 in total).

At each point along the transect, ground cover shall be classified by species as acceptable or unacceptable as follows, except that as long as there is sufficient cover to adequately control erosion, any volunteer species not on the state and Federal Noxious Weeds List (Addendum T) is acceptable:

Acceptable	Unacceptable
Vegetation approved in permit	Rock or bare ground
Dead vegetation or litter	Vegetation or litter from

from acceptable species list in Addendum T

All data gathered from the line point transects shall be recorded in the format shown in Addendum C, Part 2 and summarized in the format shown in Addendum V.

2. Sampling Frames (Productivity)

A sampling frame shall be an enclosure measuring 24" x 11-1/2" capable of enclosing the sample location. A sample location shall be established at each of the randomly chosen sites, such that the center of the sampling frame is the random point. The permittee shall clip the biomass 2" above ground level within the frame. The biomass to be clipped shall be from all plant species growth whose base lies within the sampling frame. This biomass shall then be weighed and recorded. As each frame is clipped and weighed, the biomass shall be put into a bag for oven drying. Samples shall be oven dried to a constant weight and re-weighed to determine dried weight. All data collected from the clippings within the sampling frame shall be recorded in the format presented in Addendum B.

3. Whole Area Harvesting (Productivity)

If whole release area harvesting is chosen as the method for data collection, the entire area or representative test plots shall be harvested and the system as outlined in Addenda O, P, and Q shall be used for data analysis. This entails counting all bales produced on the harvested areas and multiplying this number by the average weight of a randomly selected number of bales. The number of bales to count and weigh for any site would consist of ten percent, or fifteen large round bales, whichever is greater; or ten percent or fifteen small round bales whichever is greater and converted to lbs/ac by taking their average weight and multiplying that figure times the total number of bales, divided by the number of acres harvested.

To determine which bales to weigh, randomly select a number from one to ten then count and weigh every tenth bale thereafter until the minimum number or ten percent of the bales have been weighed. The first and last bale of any noncontiguous field or site should not be weighed. The bales shall be counted, but if the random number falls on either of the two bales mentioned, either advance one bale or select the immediate bale previous to the last bale produced.

C. Representative Test Plots

The permittee may establish and harvest a test plot to prove productivity if it can be demonstrated that the test plot statistically represents the pasture areas in the Phase III release that it is a part of. No representative test plot may represent more than 400 acres.

This can be demonstrated as follows:

Step 1 - Finding Statistically Representative Plots

1. In order for this system to be used, all the pasture areas which are being considered for release must be in grass/legumes.

2. After 12 months have elapsed of the five-year responsibility period, the entire area shall be sampled for hay production using the sample frame procedure (Addendum B). A statistically adequate number of samples must be taken over the entire area, as outlined in Addendum I.

3. Additionally, several subareas of the pasture shall be chosen as possible candidates for the representative test plots. These subareas must consist of a minimum of three plots, no smaller than one acre each and total at least five percent of the entire pasture acres or a combined total of four acres, whichever is greater, of the area for which Phase III release is desired. These areas shall also be sampled using the sample frame method and a statistically adequate number of samples at a 0.1 alpha level.

4. Then, the production of the entire pasture area shall be statistically compared to the chosen subplots using a t-test to determine if the subplots are truly representative of the entire pasture area. If the first chosen subplot fails the test, the next chosen subplot shall be compared, and so on, until the required number of plots are found that have statistically equal production to the entire pasture area. It is suggested that enough subplots be chosen as prospective test plots to guarantee there will be adequate acreage to represent production that is representative of the entire pasture area.

Step 2 - Use of the Test Plots

1. Once statistically representative test plots have been chosen, they shall become the test plots which will represent all the pasture in a particular bond release. At this time, soil series productivity adjustment factors shall be calculated.

2. The test plots and the reference plot must henceforth be managed the same.

3. At harvest, the yields from the test plots shall be compared to the yields from the reference plot to determine if the test plot yields are at least ninety percent of the unmined pasture reference plot yield. The yield data from the test plots and reference plot shall be recorded on a form as outlined in Addenda B or O.

D. Sample Adequacy

Refer to Addenda I and J for sample adequacy.

V. Data Submission and Analysis

If the data shows that revegetation success has been met, the permittee shall submit the data to the Department for review in the format shown in Addenda B, C, and O.

When the data indicates that the average ground cover and average forage production was insufficient, but close to the standards, the permittee may submit the data to the Department to determine if the production was acceptable when statistically compared to the standards using a t-test at a ninety percent statistical confidence interval. See Appendices B, O, and P.

Raw yield data from reclaimed (mined) areas and raw data from reference (unmined) areas must be oven dried to remove moisture. This must be done before statistical comparisons can be made.

VI. Maps

A. Whenever a new Phase III plan is submitted to the Permit Board, it must be accompanied by maps showing:

1. the location of the area proposed for release covered by the plan;

2. the location of test and reference plots; and

3. all permit boundaries.

B. Whenever data from a previously approved plan is submitted to the Permit Board, it must be accompanied by maps showing:

1. the location of test and reference plots;

2. the location of each transect and sample frame point;

3. the area covered by the sampling; and

4. all permit boundaries.

VII. Mitigation Plan

Ground cover and forage productivity must equal or exceed the standards for Phase III liability release for at least two sampling years during the second through the fourth years following completion of the last augmented seeding. If productivity is not achieved by these dates, the permittee must submit a mitigation plan to the Permit Board which includes the following:

A. a statement outlining the problem;

B. a discussion of what practices, beyond normal farming practices, the operator intends to use to enable the area to finally meet the release standards; and

C. a new Phase III liability release plan.

If any practice which constitutes augmentation is employed, the five year responsibility period shall restart after the mitigation plan is approved and the practices are completed.

Chapter 5. Phases II/III Revegetation Success Standards for Prime Farmland

I. Introduction

II. Success Standards and Measurement Frequency

- A. Ground Cover
- B. Crop Production
- C. Selection of Reference Crop

III. Sampling Procedures

- A. Random Sampling
- B. Sampling Techniques
  1. Sampling Frame
  2. Whole Area Harvest
  3. Manual Sampling on Row Crops
- C. Representative Test Plots
- D. Reference Area
- E. Other Requirements for Productivity Testing on Prime Farmland

IV. Data Submission and Analysis

V. Maps

VI. Mitigation Plan

I. Introduction

This policy describes the criteria and procedures for determining Phase II/III success standards for areas being restored to prime farmland.

Ground cover and soil productivity success of revegetation on prime farmland, shall be determined on the basis of crop production.

The permittee is responsible for determining and measuring production and submitting this data to the Department for evaluation. Procedures for making these determinations are described in this document.

II. Success Standards and Measurement Frequency

A. General Revegetation Requirement for Ground Cover

1. Following prime farmland soil replacement, the soil surface shall be stabilized with a vegetative cover or other means that effectively controls soil loss by wind and water erosion.

2. Ground cover shall consist of the species or species mixture which has been approved in the permit. Whenever the Prime Farmland is planted to a perennial cover, then up to five percent of the cover may consist of volunteer species not listed in Addendum T. Unacceptable plant species are listed in Addendum T.

B. Crop Production on Prime Farmland

1. The success standard for prime farmland shall be determined on the basis of crop production. Crop production shall be considered acceptable if it is at least one hundred percent of the approved success standard at a ninety percent statistical confidence level (one sided test with a .10 alpha error) for an average of any three of the last four years of the five year responsibility period.

2. Production shall be considered acceptable if it is at least one hundred percent of the approved success standard, at a ninety percent statistical confidence level, for an average of any three of the last four years of the five year responsibility period. If a reference area is used, the standard will be the annual crop yield for the reference area for the same year that the yield for the release area is being measured.

3. Areas selected for the success standard or reference area for production shall:

a. consist of similar plant species and diversity as approved in the permit.

b. currently be managed under the same land use designation as the proposed mined release area.

c. consist of soils of the same or similar texture, slope phase, similar soil series, and be in the same land capability class.

d. all receive the same high level of management using acceptable approved practices common to the area.

e. be located in the general vicinity to the mined test area to minimize weather variations.

4. The sampling techniques shall use a ninety percent statistical confidence interval (i.e., one sided test with a .10 alpha error).

5. Whenever production is equal to or exceeds the success standard, the statistical confidence interval test does not have to be performed.

C. Selection of Reference Crop

1. The reference crops chosen must consist of forages and/or row crops commonly grown in the area. A row crop must be grown for at least one of the three years. A hay crop may be grown twice. The reference crops chosen shall be selected from crops that are commonly grown on the surrounding prime farmland. If row crops are the dominant crops grown in the area, then the crop with the greatest rooting depth shall be chosen as one of the reference crops for one of the three years.

If hay is used for two of the three cropping years, the county USDA Natural Resources Conservation Service (NRCS) must verify that hay crops are commonly grown on prime farmland in that county. The row crop selected must be verified by the USDA/NRCS as the most commonly grown crop with the greatest rooting depth. This verification will be done when the plan is approved by the Permit Board.

III. Sampling Procedures

Crop production on prime farmland shall be measured by one of the following methods:

1. Randomly selected representative samples, see Addenda A, B, N, Q, S, and U.

2. Whole site harvest, see Addenda D, O, P, Q, R, and S.

3. Representative test plots, see Addenda A, B, D, N, O, P, Q, R and S.

A. Random Sampling

1. To assure that the samples truly represent the vegetative characteristics of the whole release and reference area, the permittee must use methods that will provide 1) a random selection of sampling sites, 2) a sampling technique unaffected by the sampler's preference, and 3) sufficient samples to represent the true mean of the vegetation characteristics.

2. Sampling points shall be randomly located by using a grid overlay on a map of the release or reference area and by choosing horizontal and vertical coordinates as described in Addendum A. Each sample point must fall within the release or reference area boundaries and be within an area having the vegetative cover type being measured. Additionally, at least one ground cover sample point must be measured in each noncontiguous parcel of the release area.

3. The permittee shall notify the Office of Geology ten days prior to conducting sampling or other harvesting operations to allow any authorized representative of the Department an opportunity to monitor the sampling procedures.

B. Sampling Techniques

1. Sampling Frames (Forage Production)

A sampling frame shall be an enclosure measuring 24" x 11-1/2" capable of enclosing the sample location. A sample location shall be established at each of the randomly chosen sites, such that the center of the sampling frame is the random point. The permittee shall clip all the biomass within the sampling frame 2" above ground level. The biomass to be clipped shall be from all plant species growth whose base lies within the sampling frame. This biomass shall then be weighed and recorded. As each frame is clipped and weighed, the biomass shall be put into a bag for later oven drying. Samples shall be oven dried to a constant weight and re-weighed to determine dried weight. All data collected from the clippings within the sampling frame shall be recorded in the format presented in Addendum B.

2. Whole Area Harvesting (Forage Production or Row Crops)

If whole release area harvesting is chosen as the method for data collection, the entire area or representative test plots shall be harvested and the system as outlined in Addenda D, O, P and Q shall be used for data analysis. This entails counting all bales produced on the areas and multiplying this number by the average weight of a randomly selected number of bales. The number of bales to count and weigh for any site would consist of ten percent, or fifteen large round bales, whichever is greater; or ten percent or fifteen small round bales whichever is greater and converted to lbs/ac by taking their average weight and multiplying that figure times the total number of bales, divided by the number of acres harvested.

To determine which bales to weigh, randomly select a number from one to ten then count and weigh every tenth bale thereafter until the minimum number or ten percent of the bales have been weighed. The first and last bale of any noncontiguous field or site should not be weighed. The bales shall be counted, but if the random number falls on either of the two bales mentioned, either advance one bale or select the immediate bale previous to the last bale produced.

If row crops are being used, the entire test plot shall be harvested.

Refer to addenda O, P, and Q for hay production. Refer to Addendum D for row crop production.

See Addendum J for sample adequacy.

3. Manual Sampling on Row Crops

If weather conditions or other factors prevent mechanical harvesting, the Permit Board may approve a manual sampling method for row crops. Generally, this will involve harvesting a statistically adequate number of randomly chosen measured row lengths on the reference plot and the test plot. Operators will not be allowed to use this system without the prior approval of the Permit Board. Testing procedures as described in Addendum U will be followed in this sampling method.

C. Establishment of Representative Test Plots

The permittee may establish and harvest test plots to prove productivity if the permittee can demonstrate that the test plot statistically represents the prime farmland areas in the Phase II/III release area of which it is a part. Representative test plots may not represent more than 400 acres.

This can be demonstrated as follows:

Step 1 - Finding Statistically Representative Plots

1. In order for this system to be used, all the prime farmland areas which are being considered for release must be in grass/legumes.

2. After 12 months have elapsed of the five year responsibility period, the entire prime farmland area shall be sampled for hay production using the sample frame procedure. A statistically adequate number of samples must be taken over the entire prime farmland area, as outlined in Addenda A and E.

3. Additionally, several subareas of the prime farmland shall be chosen as possible candidates for the representative test plots. These subareas must consist of a minimum of three plots, no smaller than one acre each and total at least five percent of the entire prime farmland acres or a combined total of four acres, whichever is greater, of the area for which Phase II/III release is desired. These areas shall also be sampled using the sample frame method and a statistically adequate number of samples at a 0.1 alpha level.

4. Then, the data from the sample frame procedure of the entire prime farmland area shall be statistically compared to the chosen subplots using a t-test, to determine if the subplots are truly representative of the entire prime farmland area. If the first chosen subplot fails the test, the next chosen subplot shall be compared, and so on, until the required number of plots are found that have statistically equal production to the entire prime farmland area. Variation of the subplots should not vary ten percent more or less than the entire prime farmland area being considered representative of the release area. It is suggested that enough subplots be chosen as prospective test plots to guarantee there will be adequate acreage to statistically represent production equal to the entire prime farmland area.

Step 2 - Use of the Test Plots

1. Once statistically representative test plots have been chosen, they shall become the test plots which will represent all the prime farmland in a particular bond release.
2. Where row crops such as corn, soybeans, or cotton are the dominant crops grown on prime farmland in the area, the row crop requiring the greatest rooting depth shall be chosen as one of the reference crops for one of the three years. The Department will consult with the county USDA/NRCS in which the site is located to determine which of the three row crops is more commonly grown in their area. This will be done prior to approval of the revegetation plan.

The level of management on the reclaimed area must be the same as the level of management on the area used to establish the success standard.

3. At harvest, the yields from the test plots shall be compared to the yields from the reference plot to determine if the test plot yields are equal to or greater than the yield on the unmined prime farmland reference plot. If the yield from the test plots is not greater than the yield of the reference plot, then a statistical confidence interval test will need to be determined. The yield data from the test plots and reference plot shall be recorded on a form as outlined in Addenda D and O. Refer to Addenda Q for yield adjustments for different soil series and Addenda R for yield adjustments for moisture.

D. Reference Areas

Reference areas must be representative of soils, slope, aspect, and vegetation in the pre-mined permit area. However, in cases where differences exist because of the mixing of several soil series on the reclaimed area or unavailability of a reference area as herein described, yields must be adjusted as outlined in Addendum Q. For ease of calculation, this adjustment shall always be made to the reference area yield.

Reference area crops must be under the same management as crops in the reclaimed prime farmland area. This means:

- the same seed, fertilizer, and pest management techniques shall be used;

- fertilizer rates shall be based on the same yield goal;

- the same tillage methods shall be used for seedbed preparation;

- the same, planting and harvest dates, row spacing, and plant populations shall be used; and

- any other commonly used management techniques not listed above such as adequate weed and insect control may be used provided the prime farmland test sites and/or test plots, and the reference plot are treated identically.

Reference areas shall consist of a single plot (whole plot) at least four acres in size. Either statistically adequate subsampling or whole plot harvesting may be used to determine yields. All reference areas must have prior approval from the Department before production data can be used.

Reference plot crop yields must be reasonably comparable to the county average for the given crop. Reference yields which are less than eighty percent of the county average are highly suspect and may be rejected.

Reference areas may be used as a standard for several mines or bond release areas in the vicinity, with prior approval of the Permit Board. Reference areas may be located on undisturbed acreage within permitted areas. If not so located, the permittee must obtain from the landowner(s) a written agreement allowing use of the property as a reference area and allowing right of entry for any authorized representative of the Department.

When release areas and reference plots fall on different soil series, adjustments must be made to compensate for the productivity difference. These must all be Prime Farmland soil series. Section II of the NRCS Field Office Technical Guide shall be used for this purpose. For ease of calculation, this adjustment shall always be made to the reference area yield. Each reference plot sampling frame or whole field reference plot yield must be adjusted before yield comparison or t-test statistics may be calculated. See Addendum Q.

E. Other Requirements for Productivity Testing on Prime Farmland

Crops chosen for proving productivity on prime farmland must:

- be selected from crops commonly grown in the county. If row crops are the most common crops in the county, corn, soybeans, or cotton shall be chosen for one of the three years as one of the reference crops. Hay may not be used for more than two of the three years;

- be fertilized and top-dressed according to soil tests;

- be comprised of certified seed, preferably a cultivar which is resistant to common crop specific diseases (e.g., Phytophora root rot on soybeans).

- be properly inoculated with appropriate rhizobia. Herbaceous crops must be an approved grass or grass and legume mixture;

- receive the same management practices as crops on unmined prime farmland in the surrounding area. This includes proper application and timing of herbicides and insecticides in general use in the surrounding area;

- have crop yields adjusted for moisture (Addenda D or R). Moisture content shall be documented by the individual performing the test and the method used shall be identified. Furthermore, all crop yields must be verified by an individual who is knowledgeable of agronomic practices but is not directly affiliated with the mining company. An affidavit, which must be signed by the individual verifying crop yields, must accompany any

submitted yield data. (See attached "Crop Surveyor's Affidavit of Qualifications" form, Addendum S)

All mechanically harvested row crop yield data must be accompanied by:

- a weight ticket from a government certified scale, which includes the name of the scale operator;

- a completed Crop Surveyor Affidavit as shown in Addendum S;

- a statement of the crop moisture content, the system used to make that determination, and the name of the operator;

- copies of the soil amendment test reports and amounts of amendments applied.

IV. Data Analysis

If the data show that production success has been met, the permittee shall submit the data to the Department for review in the format shown in Addenda B, D, and O.

When the data indicate that the average crop or average forage production was insufficient, but close to the standards, the permittee may submit the data to the Department to determine if the production was acceptable when statistically compared to the standards using a t-test at a ninety percent statistical confidence interval. (See Addenda N and P.)

Row crop and raw sampling frame yield data from reclaimed (mined) areas and reference areas must both be adjusted for moisture. Addendum R.

V. Maps

A. Whenever a new Phase II/III plan is submitted to the Permit Board, it must be accompanied by maps showing:

1. the location of the area proposed for release covered by the plan;

2. the location of test and reference plots; and

3. all permit boundaries.

B. Whenever data from a previously approved plan is submitted to the Permit Board, it must be accompanied by maps showing:

1. the location of test and reference plots;

2. the location of each transect and sample frame point;

3. the area covered by the sampling; and

4. all permit boundaries.

VI. Mitigation Plan

Productivity must meet or exceed these standards at least two sampling years by the fifth year; and three sampling years by the sixth year. If productivity is not achieved by these dates, the permittee must submit a mitigation plan to the Permit Board which includes the following:

A. a statement outlining the problem;

B. a discussion of what practices, beyond normal farming practices, the operator intends to use to enable the area to finally meet the release standards; and

C. a new Phase II/III liability release plan.

If any practice which constitutes augmentation is employed, the five-year responsibility period shall restart when the mitigation plan is approved and the practices are completed.

Chapter 6. Phase III Revegetation Success Standards for Recreation Land

I. Introduction

II. General Revegetation Requirements

III. Success Standards and Measurement Frequency

- A. Ground Cover
- B. Tree and Shrub Stocking Rate

IV. Sampling Procedures

- A. Random Sampling
- B. Sampling Techniques
  1. Line Point Transect (Ground Cover)
  2. Sampling Circles (Trees/Shrubs)
- C. Sample Adequacy

V. Data Analysis

VI. Maps

VII. Mitigation Plan

I. Introduction

This policy describes the criteria and procedures for proving Phase III ground cover and stocking success for areas being restored to a recreation land use.

Revegetation success on a recreation land use must be determined on the basis of the following conditions:

- general revegetation requirements of the approved permit;
- ground cover density; and
- tree and shrub stocking and survival.

The permittee is responsible for determining the ground cover and stocking rate and submitting the data to the Department for evaluation. Procedures for making these determinations are described in this document.

II. General Revegetation Requirements

The general requirements for revegetation shall be considered satisfied upon the determination by the Department that:

A. The permittee has established on regraded areas and all other disturbed areas, except water areas and surface areas of roads and areas around buildings that are approved as part of the postmining land use, a vegetative cover that is in accordance with the reclamation plan in the approved permit and that is:

1. diverse, effective, and permanent;

2. comprised of species native to the area, or of introduced species which are desirable, not listed in Addendum T, and are necessary to achieve the postmining land use and approved by the Permit Board;

3. at least equal in extent of cover to the natural vegetation of the area; and

4. capable of stabilizing the soil surface from erosion and not be less than that required to achieve the approved postmining land use.

B. The Department must also make the determination that the reestablished plant species are:

1. compatible with the approved postmining land use;

2. of the same seasonal characteristics of growth as the original vegetation;

3. capable of self-regeneration and plant succession;

4. compatible with the plant and animal species of the area; and

5. allowed for planting under applicable state and federal laws and regulations which control the growth of poisonous and noxious plants and introduced species (see Addendum T).

III. Success Standards and Measurement Frequency

A. Ground Cover

1. Vegetative ground cover shall not be less than that required to achieve the approved postmining land use.

2. Ground cover shall be considered acceptable if it is equal to a density of seventy percent at a ninety percent statistical confidence level (one sided test with a .10 alpha error). This does not mean seventy percent of a reference area; ground cover must average seventy percent of all the points sampled.

The aggregate of areas with less than seventy percent ground cover must not exceed five percent of the release area. These areas must not be larger than one acre and must be completely surrounded by desirable vegetation which has a ground cover of seventy percent. Ground cover must be measured over the entire area which is proposed for release. Areas void of desirable vegetation may not be larger than 1/4 acre and must be surrounded by desirable vegetation which has a ground cover of seventy percent.

3. Ground cover shall be sampled once during the last year of the five-year responsibility period. Follow procedures outlined in Addenda A and I.

4. No more than thirty percent of the stand can consist of approved species not listed in the permit.

B. Tree and Shrub Stocking Rate

The success standard for the tree and shrub stocking rate shall be determined on a specific permit basis with consultation and approval of the Mississippi Forestry Commission. Also, eighty percent of the countable trees and shrubs must have been in place for three years. The permittee must provide documentation of this in the form of paid receipts, reclamation status reports, and normal correspondence. The inspection section shall also verify plantings by noting in their inspection reports planting dates of specified areas.

The tree and shrub stocking rate shall be sampled once during the last year of the five-year responsibility period.

IV. Sampling Procedures

A. Random Sampling

1. To assure that the samples truly represent the vegetative characteristics of the whole release area, the permittee must use methods that will provide 1) a random selection of sampling sites, 2) a sampling technique unaffected by the sampler's preference, and 3) sufficient samples to represent the true mean of the vegetation characteristics.

2. Sampling points shall be randomly located by using a grid overlay on a map of the release area and by choosing horizontal and vertical coordinates as described in Addendum A. Each sample point must fall within the release area boundaries and be within an area having the vegetative cover type being measured. Additionally, at least one sample point must be measured in each noncontiguous unit, if the release area has more than one unit.

3. The permittee shall notify the Office of Geology ten days prior to conducting sampling or other harvesting operations to allow any authorized representative of the Department an opportunity to monitor the sampling procedures.

B. Sampling Techniques

Ground cover shall be measured as the area covered by the combined aerial parts of the accepted plant species and the litter that is produced naturally onsite, expressed as

a percentage of the total area of measurement. Up to fifteen percent of acceptable cover may be litter from acceptable plant species.

1. Line-Point Transect (Ground Cover)

A line-point transect shall be a series of 100 points spaced one foot apart along a straight line. The permittee shall establish a transect at each of the randomly selected sampling points. The direction of the transect shall also be determined randomly. This can be done as easily as spinning a pencil on a clipboard or throwing the pencil in the air and using the direction where it points.

Each transect must be entirely within a homogeneous area that accurately represents the vegetative cover type being measured. Samples must be taken in pure vegetation types and not in transition zones between adjacent types. Also, the sample sites must be located so they avoid the effects of neighboring vegetation types, roads, stream courses, ponds, etc.

The permittee shall classify the ground cover by species at each 1-foot interval along the entire length of the transect (starting one foot from the random point). The area of measurement shall be a line projected downward and perpendicular to the ground at each one foot interval (100 in total).

At each point along the transect, ground cover shall be classified by species as acceptable or unacceptable as follows, except that as long as there is sufficient cover to adequately control erosion, any volunteer species not on the state and Federal Noxious Weeds List (Addendum T) is acceptable:

Acceptable	Unacceptable
Vegetation approved in permit	Rock or bare ground
Dead vegetation or litter from acceptable species	Vegetation or litter from list in Addendum T

All data gathered from the line-point transects shall be recorded in the format shown in Addendum C.

2. Sampling Circles (Trees/Shrubs)

If tree and shrub stocking is included as a part of this land use, the stocking rate shall be no less than what is approved in the permit. For a complete discussion of measuring the stocking rate for woody stems, see Chapter one, Commercial Forest land.

C. Sample Adequacy

See Addenda I and K for sample adequacy.

V. Data Analysis

If the data show that revegetation success has been met, the permittee shall submit the data to the Department for review in the format shown in Addendum C within thirty days of collection.

When the data indicate that the average ground cover density is insufficient, but close to the standard, the permittee may submit the data to the Department to determine if the vegetation is acceptable when statistically compared to the standards using a ninety percent statistical confidence interval. Addendum L explains how the statistical analysis shall be performed.

VI. Maps

A. Whenever a new Phase III plan is submitted to the Permit Board, it must be accompanied by maps showing the location of the area proposed for release covered by the plan.

B. Whenever data from a previously approved plan is submitted to the Permit Board, it must be accompanied by maps showing:

1. the location of each transect and sampling circle location;

2. the area covered by the sampling; and

3. all permit boundaries.

VII. Mitigation Plan

Average ground cover must be greater than or equal to seventy percent, and tree and shrub stocking must achieve the standards set forth in the permit the fifth year following completion of the initial seeding. If they are not, the permittee must submit a mitigation plan to the Permit Board which includes the following:

1. a statement outlining the problem;

2. a discussion of what practices, beyond normal agronomic practices, the operator intends to use to enable the area to finally meet the release standards; and

3. a new Phase III liability release plan.

If any practice which constitutes augmentation is employed, the five-year responsibility period shall restart when the mitigation plan is approved and the practices are completed.

Chapter 7. Phase III Revegetation Success Standards for Residential Land

I. Introduction

II. General Revegetation Requirements

III. Success Standards and Measurement Frequency

IV. Sampling Procedures

A. Random Sampling

B. Sampling Techniques

C. Sample Adequacy

V. Data Analysis

VI. Maps

VII. Mitigation Plan

I. Introduction

This policy describes the criteria and procedures for determining Phase III success standards for areas being restored to a residential land use.

Revegetation success on a residential land use must be determined on the basis of the following conditions:

- general revegetation requirements of the approved permit, and
- ground cover density.

The permittee is responsible for measuring the vegetation and for submitting the data to the Department for analysis. Measurements of the vegetation must be made in accordance with the procedures outlined in this document.

II. General Revegetation Requirements

The general requirements for revegetation shall be considered satisfied upon the determination by the Department that:

A. The permittee has established on regraded areas and all other disturbed areas, except water areas, surface areas of roads and areas around buildings that are approved as part of the postmining land use, a vegetative cover that is in accordance with the approved reclamation plan and that is:

1. diverse, effective, and permanent;

2. comprised of species native to the area, or of introduced species which are allowable under Addendum T, necessary to achieve the postmining land use, and approved by the Permit Board;

3. at least equal in extent of cover to the natural vegetation of the area; and

4. capable of stabilizing the soil surface from erosion.

B. The Department must also make the determination that the reestablished plant species are:

1. compatible with the approved postmining land use;

2. of the same seasonal characteristics of growth as the original vegetation;

3. capable of self-regeneration and plant succession;

4. compatible with the plant and animal species of the area; and

5. allowed for planting under applicable state and federal laws and regulations which control the growth of poisonous and noxious plants and introduced species. See Addendum T.

III. Success Standards and Measurement Frequency

A. Ground Cover

1. In areas developed for residential land use within two years of regrading, ground cover shall not be less than seventy percent at a ninety percent statistical confidence level.

2. If the area is not developed for residential use within two years of regrading, any areas that are vegetated must be designated with another acceptable land use and evaluated under the appropriate success standard.

3. The aggregate of areas with less than seventy percent ground cover must not exceed five percent of the release area. These areas must not be larger than one acre and must be completely surrounded by desirable vegetation which has a ground cover of seventy percent. Areas void of desirable vegetation may not be larger than one quarter of an acre and must be surrounded by desirable vegetation which has a ground cover of seventy percent.

4. No more than thirty percent of the stand can be approved species not listed in the permit.

B. Tree and Shrub Stocking Rate

1. The stocking rate for trees, shrubs, or half-shrubs shall be determined on a specific permit basis with consultation and approval of the Mississippi Forestry Commission. The stocking of live woody plants shall be equal to or greater than ninety percent of the stocking of woody plants of the same life form approved in the permit. When this requirement is met and acceptable ground cover is achieved, the five year responsibility period shall begin.

A countable tree, shrub, or half-shrub shall:

a. have been in place at least two growing seasons;

b. be alive and healthy; and

c. have at least one-third of its length in live crown.

2. Tree and shrub stocking rate shall be sampled once during the last year of the five year responsibility period. The woody plants established on the revegetated site must be equal to or greater than ninety percent of the stocking rate approved in the permit with ninety percent statistical confidence. At the time of final bond release at least eighty percent of the trees and shrubs used to determine success shall have been in place for sixty percent of the applicable minimum period of responsibility.

IV. Sampling Procedures

A. Random Sampling

1. To assure that the samples truly represent the vegetative characteristics of the whole release or reference area, the permittee must use methods that will provide 1) a random selection of sampling sites, 2) a sampling technique unaffected by the sampler's preference, and 3) sufficient samples to represent the true mean of the vegetation characteristics.

2. Sampling points shall be randomly located by using a grid overlay on a map of the release or reference area and by choosing horizontal and vertical coordinates as described in Addendum A. Each sample point must fall within the release area boundaries and be within an area having the vegetative cover type being measured. Additionally, if the release area does not consist of a single unit, at least one sample point must be measured in each noncontiguous unit.

3. The permittee shall notify the Office of Geology ten days prior to conducting sampling or other harvesting operations to allow any authorized representative of the Department an opportunity to monitor the sampling procedures.

B. Sampling Techniques

1. Ground cover shall be measured as the area covered by the combined aerial parts of the plant species approved in the permit and the leaf litter that is produced naturally onsite, expressed as a percentage of the total area of measurement. Up to fifteen percent of acceptable cover may be litter from acceptable plant species.

2. Trees and shrubs shall be measured as the number of countable plantings, expressed as stems per acre for the total area of measurement.

3. Because ground cover and tree/shrub density are measured differently, the techniques for sampling each must also be different. For ground cover, the permittee shall identify the species or type of cover using a line-point transect method. Trees and shrubs will be measured using randomly selected one-fiftieth of an acre sampling circles. For ground cover density refer to Addenda A, C, I, L, and V. For tree and shrub density refer to Addenda A, F, H, K, and M.

4. Each transect or sampling circle must be entirely within a homogeneous area that accurately represents the vegetative cover type being measured. Samples must be taken in pure vegetation types and not in transition zones between adjacent types. Also, the sample sites must be located so they avoid the effects of neighboring vegetation types, roads, stream courses, ponds, etc.

a. Line-Point Transect (Ground Cover)

A line-point transect shall be a series of 100 points spaced one foot apart along a straight line. The permittee shall establish a transect at each of the randomly selected sampling points. The direction of the transect shall also be determined randomly. This can be done as easily as spinning a pencil on a clipboard or throwing the pencil in the air and using the direction where it points.

The permittee shall classify the ground cover at each one foot interval along the entire length of the transect (starting one foot from the random point). The area of measurement shall be a line projected downward and perpendicular to the ground at each one foot interval (100 in total).

At each point along the transect, ground cover shall be classified as acceptable or unacceptable as follows, except that as long as there is sufficient cover to adequately control erosion, any volunteer species not on the state and Federal Noxious Weeds List (Addendum T) is acceptable:

Acceptable	Unacceptable
Vegetation approved in permit	Rock or bare ground
Dead vegetation or litter from acceptable species	Vegetation or litter from list in Addendum T

All data gathered from the line-point transects shall be recorded in the format shown in Addendum C, Part 2.

b. Sampling Circles (Trees/Shrubs)

A sampling circle shall be a round area one-fiftieth of an acre in size (16.7 feet in radius). The permittee shall establish a sampling circle at each randomly selected sampling points such that the center of the sampling circle is the random point. Permittee may draw the circle by attaching a 16.7-foot string to a stake fixed at the random point and then sweeping the end of the string (tightly stretched) in a circle around the stake. The permittee shall count all living trees and shrubs within each of the sampling circles. In more mature tree/shrub areas, the stakes may need to be extended to elevate the string above the growth.

To count as a living tree or shrub, the tree or shrub must be alive and healthy; must have been in place for at least two years; and must have at least one-third of its length in live crown. At the time of liability release, 80 percent must have been in place for three years.

All data gathered from the sampling circles shall be recorded in the format presented in Addendum F.

C. Sample Adequacy

See Addenda I and K for sample adequacy.

V. Data Analysis

If the data show that revegetation success has been met, the permittee shall submit the data to the Department for review in the format shown in Addenda C and F within four months of collection.

When the data indicate that the average ground cover and/or tree and shrub average stocking density is insufficient, but close to the standards, the permittee may submit the data to the Department to determine if the vegetation is acceptable when statistically compared to the standards using a 90 percent statistical confidence interval. Addenda E and M explain how the statistical analysis will be performed.

VI. Maps

A. Whenever a new Phase III plan is submitted to the Permit Board, it must be accompanied by maps showing the location of the area proposed for release covered by the plan.

B. Whenever data from a previously approved plan is submitted to the Permit Board, it must be accompanied by maps showing:

1. the location of each transect and sampling circle location;

2. the area covered by the plan; and

3. all permit boundaries.

VII. Mitigation Plan

Ground cover must be greater than or equal to an average of seventy percent coverage, and/or tree and shrub stocking must achieve the standards set in the permit, the fifth year following completion of the initial seeding. If they do not achieve these standards, the permittee must submit a mitigation plan to the Permit Board which includes the following:

1. A statement outlining the problem.

2. A discussion of what practices, beyond normal agronomic practices, the operator intends to use to enable the area to finally meet the release standards.

3. A new Phase III liability release plan.

If renovation, soil substitution or any other practice which constitutes augmentation is employed, the five-year responsibility period begins again.

Chapter 8. Phase III Revegetation Success Standards for Wildlife Habitat

I. Introduction

II. General Revegetation Requirements

III. Success Standards and Measurement Frequency

A. Ground Cover

B. Tree and Shrub Stocking

IV. Sampling Procedures

A. Random Sampling

B. Sampling Techniques

C. Sample Adequacy

V. Data Analysis

VI. Maps

VII. Mitigation Plan

I. Introduction

This policy describes the criteria and procedures for determining Phase III success standards for areas being restored to wildlife habitat.

Revegetation success on wildlife habitat must be determined on the basis of the following conditions:

- General revegetation requirements of the approved permit;
- Ground cover; and
- Tree/shrub/ or half-shrub stocking and survival.

The permittee is responsible for measuring the vegetation and for submitting the data to the Department for analysis. Measurements of the vegetation must be made in accordance with the procedures outlined in this document.

II. General Revegetation Requirements

The general requirements for revegetation shall be considered satisfied upon the determination by the Department that:

A. The permittee has established on regraded areas and all other disturbed areas, except water areas, surface areas of roads and areas around buildings that are approved as part of the postmining land use, a vegetative cover that is in accordance with the reclamation plan in the approved permit and that is:

1. Diverse, effective, and permanent;

2. Comprised of species native to the area, or of introduced species which are allowable under Addendum T, necessary to achieve the postmining land use, and approved by the Permit Board;

3. At least equal in extent of cover to the natural vegetation of the area; and

4. Capable of stabilizing the soil surface from erosion.

B. The Department must also make the determination that the reestablished plant species are:

1. Compatible with the approved postmining land use;

2. Of the same seasonal characteristics of growth as the original vegetation;

3. Capable of self-regeneration and plant succession;

4. Compatible with the plant and animal species of the area; and

5. Allowed for planting under applicable state and federal laws and regulations which control the growth of poisonous and noxious plants and introduced species. See Addendum T.

III. Success Standards and Measurement Frequency

A. Ground Cover

1. The success standard for wildlife ground cover shall be considered acceptable if it has at least seventy percent density with ninety percent statistical confidence interval

(one sided test with a .10 alpha error) for the last year of the five year responsibility period.

2. The aggregate of areas with less than seventy percent ground cover must not exceed five percent of the release area. These areas must not be larger than one acre and must be completely surrounded by desirable vegetation which has a ground cover of seventy percent. Areas void of desirable vegetation may not be larger than one quarter acre and must be surrounded by desirable vegetation which has a ground cover of seventy percent.

3. No more than thirty-five percent of the stand can consist of approved species not listed in the permit.

B. Tree and Shrub Stocking Rate

1. The stocking rate for trees, shrubs, or half-shrubs shall be determined on a specific permit basis with consultation and approval of the Mississippi Department of Wildlife, Fisheries and Parks. The stocking of live woody plants shall be equal to or greater than ninety percent of the stocking of woody plants of the same life form approved in the permit.

A countable tree, shrub, or half-shrub shall:

a. have been in place at least two growing seasons;

b. be alive and healthy; and

c. have at least one-third of its length in live crown.

2. Tree and shrub stocking rate shall be sampled once during the last year of the five year responsibility period. The woody plants established on the revegetated site must be equal to or greater than ninety percent of the stocking rate approved in the permit with ninety percent statistical confidence. At the time of final bond release at least eighty percent of the trees and shrubs used to determine success shall have been in place for sixty percent of the applicable minimum period of responsibility. The operator may not interplant trees within two years of doing sampling for final bond release.

IV. Sampling Procedures

A. Random Sampling

1. To assure that the samples truly represent the vegetative characteristics of the whole release or reference area, the permittee must use methods that will provide 1) a random selection of sampling sites, 2) a sampling technique unaffected by the sampler's preference, and 3) sufficient samples to represent the true mean of the vegetative characteristics.

2. Sampling points shall be randomly located by using a grid overlay on a map of the release or reference area and by choosing horizontal and vertical coordinates as described in Addendum A. Each sample point must fall within the release area boundaries and be within an area having the vegetative cover type being measured. Additionally, if the release area does not consist of a single unit, at least one sample point must be measured in each noncontiguous unit.

3. The permittee shall notify the Office of Geology ten days prior to conducting sampling or other harvesting operations to allow any authorized representative of the Department an opportunity to monitor the sampling procedures.

B. Sampling Techniques

1. Ground cover shall be measured as the area covered by the combined aerial parts of the plant species approved in the permit and the leaf litter that is produced naturally onsite, expressed as a percentage of the total area of measurement. Up to fifteen percent of acceptable cover may be litter from acceptable plant species.

2. Trees and shrubs shall be measured as the number of countable approvable woody stems, expressed as stems per acre for the total area of measurement.

3. Because ground cover and tree/shrub density are measured differently, the techniques for sampling each must also be different. For ground cover, the permittee shall identify the species or type of cover using a line-point transect method. Trees and shrubs will be measured using randomly selected one-fiftieth of an acre sampling circles.

4. Each transect or sampling circle must be entirely within a homogeneous area that accurately represents the vegetative cover type being measured. Samples must be taken in pure vegetation types and not in transition zones between adjacent types. Also, the sample sites must be located so they avoid the effects of neighboring vegetation types, roads, stream courses, ponds, etc.

a. Line-Point Transect (Ground Cover)

A line-point transect shall be a series of 100 points spaced one foot apart along a straight line. The permittee shall establish a transect at each of the randomly selected sampling points. The direction of the transect shall also be determined randomly. This can be done as easily as spinning a pencil on a clipboard or throwing the pencil in the air and using the direction where it points.

The permittee shall classify the ground cover at each one foot interval along the entire length of the transect (starting one foot from the random point). The area of measurement shall be a line projected downward and perpendicular to the ground at each one foot interval (100 in total).

At each point along the transect, ground cover shall be classified as acceptable or unacceptable as follows, except that as long as there is sufficient cover to adequately control erosion, any volunteer species not on the state and Federal Noxious Weeds List (Addendum T) is acceptable:

Acceptable	Unacceptable
Vegetation approved in permit	Rock or bare ground
Dead vegetation or litter from acceptable species	Vegetation or litter from list in list in Addendum T

All data gathered from the line-point transects shall be recorded in the format shown in Addendum C.

b. Sampling Circles (Trees/Shrubs)

A sampling circle shall be a round area one-fiftieth of an acre in size (16.7 feet in radius). The permittee shall establish a sampling circle at each randomly selected sampling point such that the center of the sampling circle is the random point. Permittee may draw the circle by attaching a 16.7 foot string to a stake fixed at the random point and then sweeping the end of the string (tightly stretched) in a circle around the stake. The permittee shall count all living trees and shrubs within each of the sampling circles. In more mature tree/shrub areas, the stakes may need to be extended to elevate the string above the growth.

To count as a living tree or shrub, the tree or shrub must be alive and healthy; must have been in place for at least two years; and must have at least one-third

of its length in live crown. At the time of liability release, eighty percent must have been in place for three years.

All data gathered from the sampling circles shall be recorded in the format presented in Addendum F.

C. Sample Adequacy

See Addenda I and K for sample adequacy.

V. Data Analysis

If the data show that revegetation success has been met, the permittee shall submit the data to the Department for review in the format shown in Addenda C and F within thirty days of collection.

When the data indicate that the average ground cover and/or tree and shrub average stocking density is insufficient, but close to the standards, the permittee may submit the data to the Department to determine if the vegetation is acceptable when statistically compared to the standards using a ninety percent statistical confidence interval. Addenda E and M explain how the statistical analysis will be performed.

VI. Maps

A. Whenever a new Phase III plan is submitted to the Permit Board, it must be accompanied by maps showing the location of the area proposed for release covered by the plan.

B. Whenever data from a previously approved plan is submitted to the Permit board, it must be accompanied by maps showing:

1. the location of each transect and sampling circle location,

2. the area covered by the plan, and

3. all permit boundaries.

VII. Mitigation Plan

Ground cover must be greater than or equal to seventy percent coverage and tree and shrub stocking must achieve the standards set in the permit the fifth year following completion of the initial seeding. If

they do not achieve these standards, the permittee must submit a mitigation plan to the Permit Board which includes the following:

1. a statement outlining the problem;

2. a discussion of what practices, beyond normal agronomic practices, the operator intends to use to enable the area to finally meet the release standards; and

3. a new Phase III liability release plan.

If renovation, soil substitution, or any other practice which constitutes augmentation is employed, the five-year responsibility period begins again.

Selection of Random Sampling Sites

The permittee shall use x and y grid coordinates in establishing the location of sampling sites on the reclaimed area (and on the reference area, if a reference area standard is used).

A grid shall be placed or drawn on the map containing the areas to be sampled. The grid must be large enough so that all of the release or reference area is covered by the grid (see drawing in Figure 1). Also, the grid pattern shall be such that the axes are 200 feet apart or closer.

The x and y axes shall be numbered in consecutive order beginning at the extreme lower left point of the grid (this point being 1).

The permittee shall generate random number pairs for each x and y axis combination needed. For example, if five sampling locations are to be established, the permittee must generate five random number pairs.

The random numbers table shown in Table 1 may be used to choose the numbers needed. The table is used as follows:

Step 1) Choose an axis to work on (x or y).

Step 2) Flip a coin twice to determine a column on which to start (refer to coin flip combinations at the head of each column).

Step 3) By beginning at the top of the column selected, begin reviewing the numbers until a number that falls within the range of those on the chosen grid axis is found. If the range of numbers on the axis is less than 10, then you will only review the last digit of the numbers in the column. If the range of numbers is more than 10 but less than 100, then the last <u>two</u> digits will be reviewed.

Step 4) Record the first number found.

Step 5) Beginning after the last number found, continue down the column until another number is located within the given range. Record this number and continue following the above procedure until the required amount of numbers is found and recorded. If you reach the bottom of the column before you locate enough numbers, proceed to one of the adjacent columns, starting again at the top. When all columns have been used, begin again with the first column used, except review only the first (instead of the last) one or two digits of the numbers in the column.

Step 6) After enough numbers are generated for the first axis chosen, restart the process at step 1 for the other axis.

After enough random number pairs have been generated for each axis, locate the sample points on the grid. If a point(s) falls outside the release or reference area, a new point(s) must be chosen as explained above.

Addendum A

Table 1
A Set of Random Numbers

tails/heads column 1	heads/heads column 2	tails/tails column 3	heads/tails column 4
6327	0983	3798	4679
2167	6484	9467	9058
3939	0407	1804	8827
4672	3865	5689	9878
8071	5185	5514	5008
9509	0603	7461	8550
6615	2588	3558	3349
4833	2422	9790	1183
5594	1809	6931	6571
9441	1699	3947	7702
7922	9812	7229	5252
9419	6494	8179	8065
6178	3556	2466	2495
2647	3961	7546	4799
0474	1839	6926	6534
9814	1577	8293	0301
0104	4579	0627	8667
1608	9470	4131	5345
9722	1557	0471	5498
4189	3582	3675	9461
9855	8088	9006	6897
5791	8234	1472	3421
0872	3310	0510	9046
8953	9809	8037	8376
2895	4319	6544	8953
0609	5248	8734	2498
0795	2464	6170	1063
1572	7371	7936	2841

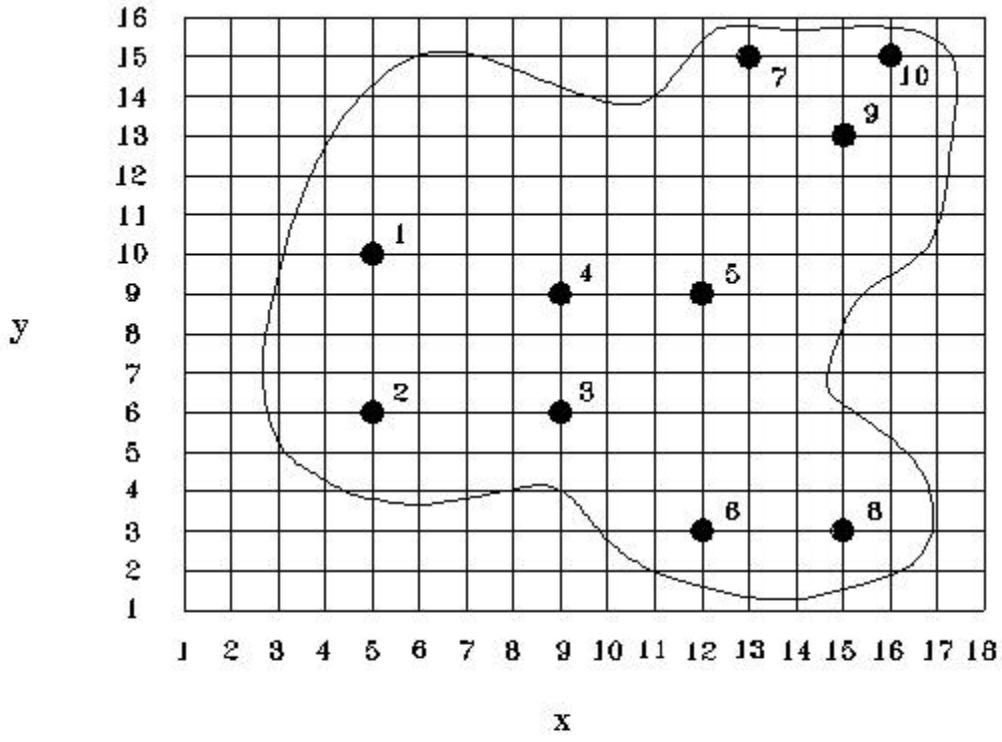
4307	0294	6060	5194
4857	0197	2401	7005
1632	7189	6463	9830
0745	8034	7882	7152
0736	5110	5165	6571
8168	7924	5876	1407
7468	5313	2736	9010
6044	5420	3077	9070
6716	0059	3001	8871
9342	0169	6880	7986
5809	6048	9051	1151
1532	9715	7081	0109
5506	5812	5917	4415
4045	1751	2817	9958
5966	9930	6437	7279
6062	3296	5093	2503
4097	8379	5670	0614
6793	3999	4645	5143
7960	4853	0583	1920
1321	4067	8503	1604

Addendum A

Figure 1

Random Plot Locations Grid Overlay

random plot	random numbers	
	x	y
1	5	10
2	5	6
3	9	6
4	9	9
5	12	9
6	12	3
7	13	15
8	15	3
9	15	13
10	16	15



Chapters 2,4,5,6 Addendum B

Productivity

Summary Data Form for Sampling Frames

Example of format for summarizing sampling frame data

Page ___ of ___

Company name _____ Permit no. _____

Check one: ___Reclaimed area ___Reference area: if reference area, indicate permit to which data will be compared. _____

Land use _____

Acres in sampling area (a) _____ Number of samples taken (n) _____

Date of sampling _____

sample number	wet weight in grams	(reclaimed area) oven dry weight in grams (dw)	(reference plot) adjusted for differing soil series in grams (adw)
_____	_____	_____	_____
		$\sum dw$	$\sum adw$

reclaimed area mean ($\bar{x}$) = $\frac{\sum dw}{n}$ = _____

Reference area mean () = $\sum adw$ = _____

n

Chapters 1,3,6,7,8 Addendum C, Part 1

Cover

Line Point Transect Data Summary Sheet

Example of Format for Summarizing Line Point Transect Data

Page __ of ___

Company name _____ Permit no. _____

Land use _____

Acres in release area _____ No. of transects used (n) = _____

Date of sampling _____

transect no. (n)	acceptable points found (out of 100) (x)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16 (extend as needed)	

_____ _____

n = _____ Σx = _____

mean ($\bar{x}$) = $\Sigma x/n$ = _____

Chapters 1,3,4,5,6,7,8 Addendum C, Part 2

Cover

Line Point Transect Sheet

Example of Format for Recording Line Point Transect Information:

Page ___ of ___

Company name _____ Permit no._____

Land use _____

Date of sampling _____ Line point transect # _____

Point #	accept or unaccept	Point #	accept or unaccept	Point #	accept or unaccept	Point #	accept or unaccept
1		26		51		76	
2		27		52		77	
3		28		53		78	
4		29		54		79	
5		30		55		80	
6		31		56		81	
7		32		57		82	
8		33		58		83	
9		34		59		84	
10		35		60		85	
11		36		61		86	
12		37		62		87	
13		38		63		88	
14		39		64		89	
15		40		65		90	
16		41		66		91	
17		42		67		92	
18		43		68		93	
19		44		69		94	
20		45		70		95	
21		46		71		96	
22		47		72		97	
23		48		73		98	
24		49		74		99	
25		50		75		100	

species % stand

$$\% \text{ cover} = \frac{\sum \text{accept}}{100} = _____$$

$$\% \text{ accept/not approved (a/na)} = \frac{\sum \text{a/na}}{100} = _____$$

Chapters 2,5 Addendum D

Data Form for Row Crop Production Data

Page __ of __

Company name _____ Permit no. _____

Check one: ____ Reclaimed area ____ Reference area: if reference area, indicate permit to which data will be compared. _____

Land use _____

Acres in sampling area (a) _____

Date of sampling _____

weight tickets/ pounds or bushels strip no.	unadjusted weight or yield/acre	(reclaimed area) moisture adjusted weight or yield/acre	(reference area) adjusted for differing soil series weight or yield/acre

Refer to Addendum R to calculate the moisture adjusted yield per acre.

Statistical Analysis on Ground Cover Measurements

In performing statistical comparisons for ground cover, results of randomly assigned line-point transects will be compared to the success standard of seventy percent ground cover at a ninety percent confidence statistical interval, as illustrated in the following example:

Null hypothesis: Ground cover on release area $\geq$ 70% ground cover

Alternate hypothesis: Ground cover on release area < 70% ground cover

	release area sample results (X)	ground cover standard	x^2
Assume that it took 10 samples to achieve sample adequacy	41%	70%	
	72%		
	89%		
	42%		
	69%		
	80%		
	42%		
	57%		
	77%		
	89%		
	$\Sigma x =$ 658%		$\Sigma x^2 = 46{,}574$

$$\text{ground cover mean } (\bar{x}) = \frac{\Sigma x}{n} = \frac{658}{10} = 65.8$$

$$\text{standard deviation (s)} = \sqrt{\frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}} = \sqrt{\frac{46{,}574 - \frac{432{,}964}{10}}{9}} =$$

$$\sqrt{\frac{46{,}574 - 43296.4}{9}} = \sqrt{\frac{3277.6}{9}} = \sqrt{364.178} = 19.08$$

number of samples (n) = 10 *t* table 0.10 a d.f. (10-1) = 1.38

$$t \text{ calculated} = \frac{|\text{ground cover mean of release area-target ground cover}|}{\sqrt{\frac{s}{n}}} = \frac{|65.8-70|}{\sqrt{\frac{19.08}{10}}} = \frac{4.2}{6.03}$$

$$= .695$$

Since .695 < 1.38, the null hypothesis is not rejected. It can then be determined that the ground cover on the release area is greater than or equal to the target ground cover.

Chapters 1,7,8

Addendum F, Part 1
Density
Sampling Circles Summary Sheet

Example of format for summarizing sampling circles information.

Page _____ of _____

Company name _____

Permit no. _____

Land use _____

Date(s) of sampling _____

Acres in release area _____

Area of each sampling circle in acres _____

No. of sampling circles used (n) _____

Total no. of countable trees tallied (Σx) _____

Total no. of countable trees 3 years or older (Σ3 years) _____

% of trees 3 years or older = Σ 3 years/Σx = _____ This figure must equal
(from Sampling Circles Data Sheet(s) or exceed 80% to be
successful for final bond release.

Total number of countable trees per acre $\frac{(\Sigma x)}{n} \times 50$ = _____

Target number of trees per acre from approved Phase III Release Plan = _____

Chapters 2,7,8

Addendum F, Part 2
Density
Sampling Circles Data Sheet

Example of format for recording sampling circles information.

Page _____ of _____

Company name _____ Permit no. _____

Land use _____

Date of sampling _____

sampling circle no. (n)	countable trees (x)	number of countable trees 3 years or older (3 years)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
(extend as needed)		
$\Sigma n =$	$\Sigma x =$	$\Sigma 3$ years =

Values with a one-tailed *t* distribution for various degrees of freedom (d.f.)

d.f.	*t* = 0.1
1	3.078
2	1.886
3	1.638
4	1.533
5	1.476
6	1.440
7	1.415
8	1.397
9	1.383
10	1.372
11	1.363
12	1.356
13	1.350
14	1.345
15	1.341
16	1.337
17	1.333
18	1.330
19	1.328
20	1.325
21	1.323
22	1.321
23	1.319
24	1.318
25	1.316
26	1.315
27	1.314
28	1.313
29	1.311
30	1.310
40	1.303
60	1.296
120	1.289
∞	1.282

Note: for the sample adequacy calculations and 1 tail productivity comparisons, use column t = 0.1

From: Chambers, Jeanne C., and Ray W. Brown, 1983, Methods for vegetation sampling and analysis on revegetated mined lands, General Technical Report INT-151. Ogden, UT: United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, 57 p.

Statistical Analysis on Tree and Shrub Stocking Measurements

This example assumes that eighty percent of the trees are more than three years old. If they are not, there is no reason to proceed with this analysis.

In performing statistical comparisons for tree and shrub stocking, results of randomly assigned sampling circles will be compared to the success standard, hypothetically 500 trees or shrubs/acre at a ninety percent confidence statistical interval, as illustrated in the following example:

Null hypothesis: Sample stocking rate on release area $\geq$ 450 trees and shrubs.

Alternate hypothesis: Sample stocking rate on release area < 450 trees and shrubs.

	release area sample results (x)	Target release stocking rate
Assume that it took 10 samples to achieve sample adequacy	10	450 trees and shrubs
	9	
	5	(90% of 500)
	8	= 9.0 trees/plot (1/50 acre sampling circle area)
	9	
	9	
	8	
	8	
	9	
	9	
$\Sigma x =$	84	

$$\text{sample stocking rate mean } (\bar{x}) = \frac{\Sigma x}{n} = \frac{84}{10} = 8.4$$

If the sample stocking rate mean, $\bar{x}$, is $\geq$ the Target release stocking rate (9.0 in this example), then the sample stocking rate of the release area is greater than the Target release stocking rate and is successful. If, as in this example, the sample stocking rate mean, $\bar{x}$, is lower than the Target release stocking rate, you must proceed with the *t* test as follows:

$$\text{standard deviation (s)} = \sqrt{\frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}} = \sqrt{\frac{722 - \frac{7056}{10}}{10 - 1}} = \sqrt{\frac{722 - \frac{7056}{9}}{}} = \sqrt{\frac{16.4}{9}} =$$

$\sqrt{1.822} = 1.350$; number of samples (n) = 10

$$t \text{ calculated} = \left|\frac{\text{stocking rate of release area-target stocking rate}}{s}\right| = \left|\frac{8.4 - 9.0}{1.350}\right| = \frac{.6}{1.350} = \frac{.6}{.427} = 1.405$$

$\sqrt{n}$ $\sqrt{10}$ 3.162

t table: 0.10 df (10-1) = 1.383. Since 1.405 $\geq$ 1.383, the null hypothesis is rejected. It can then be determined that the sample stocking rate of the release area is not greater than or equal to the target release stocking rate. The sample stocking rate fails.

Example Use of Sample Adequacy Formula for Ground Cover Measurement

In this example, the permittee has taken an initial group of samples from ten randomly located line-point transects. The results of this sampling are as follows:

1) Calculating the variance:

transect no. (n)	acceptable points (out of 100) x	x^2
1	86	7,396
2	90	8,100
3	76	5,776
4	82	6,724
5	40	1,600
6	76	5,776
7	40	1,600
8	82	6,724
9	86	7,396
10	90	8,100
	$\Sigma x = 748$	$\Sigma x^2 = 59{,}192$

now we need to calculate the variance, s^2

number of transects (n) = 10

$$s^2 = \frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}$$

or, put into words:

$$s^2 = \frac{\text{sum of squared values added} - \frac{\text{square of sum of all values}}{\text{\# of values}}}{\text{(number of values - 1)}}$$

from the data in the above example, we calculate:

$$s^2 = \frac{59{,}192 - \frac{(748)^2}{10}}{9} = \frac{59{,}192 - 55{,}950.4}{9} = \frac{3241.6}{9} = 360.18$$

Addendum I, Page 2

2) Determining sample adequacy:

from the *t* table, we find *t* for a sample size of 10

n-1 = degrees of freedom

10-1 = 9 degrees of freedom for our example

from the *t* table, locate the *t* statistic for 9 degrees of freedom = 1.383

the sample adequacy formula is:

$$n = \frac{(t^2)(S^2)}{(0.1\bar{x})^2}$$

where:

$\bar{x}$ = the sample mean

n = the number of samples which will need to be taken

t^2 = *t* table value, squared

s^2 = variance

plugging these values into the sample adequacy formula, we get:

$$n = \frac{(1.383^2)(360.18)}{(7.48)^2} = \frac{688.91}{55.95} = 12.31 \text{ or } 13$$

Since we already have taken 10 samples and the sample adequacy formula tells us we need 13, we need to take an additional 3 transects (13 - 10 = 3).

When those 3 additional transects have been taken, a new variance must be calculated and the sample adequacy formula recalculated. This is to ascertain that the 3 additional transects didn't

somehow increase the variance and, therefore, require still more transects. If this happens, the additional transects must be taken and the variance recalculated to determine sample adequacy.

The sample adequacy requirements must be fulfilled before a comparison to the standard can be made.

Example Use of Sample Adequacy Formula for Hay Production Measurements

In this example, the permittee has taken an initial group of ten randomly located sampling frames. The results of the sampling are as follows:

frame no. (n)	oven dry weight per sampling frame x	x^2
1	72.2	5,212.84
2	80.0	6,400.00
3	22.0	484.00
4	96.5	9,312.25
5	100.2	10,040.04
6	25.0	625.00
7	81.0	6,561.00
8	96.0	9,216.00
9	100.9	10,180.81
10	51.0	2,601.00
n=10	$\Sigma x = 724.8$	$\Sigma x^2 = 60{,}632.94$

now we need to calculate the variance, s^2

number of sampling frames (n) = 10

$$s^2 = \frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}$$

or, put into words:

$$\text{variance} = \frac{\text{sum of all squared values} - \frac{\text{square of sum of all values}}{\text{\# of frames}}}{\text{(number of frames - 1)}}$$

from the data in the above example, we calculate:

$$s^2 = \frac{60{,}632.94 - \frac{(724.8)^2}{10}}{9} = 899.94$$

2) Determining sample adequacy:

from the *t* table, we find *t* for a sample size of 10

n-1 = degrees of freedom

10-1 = 9 degrees of freedom for our example

from the *t* table, locate the *t* statistic for 9 degrees of freedom = 1.383

the sample adequacy formula is : $n = \frac{(t^2)(s^2)}{(0.1\bar{x})^2}$

where:

$(0.1\bar{x})^2$ = 10% of mean squared. 10% of 72.48 = 7.248, so $(7.248)^2 = 52.53$

$$\text{mean } (\bar{x}) = \frac{\Sigma x}{n}$$

n = the number of samples which will need to be taken

t^2 = *t* table value, squared (see Addendum G)

s^2 = variance

plugging these values into the sample adequacy formula, we get:

$$n = \frac{(1.383^2)(899.94)}{52.53} = 32.76 = 33 \text{ samples needed}$$

Since we already have taken 10 samples and the sample adequacy formula tells us we need a total of 33, an additional 23 samples will need to be taken.

When the 23 additional samples have been taken, a new variance must be calculated and the sample adequacy formula recalculated. This is to ascertain that the additional samples didn't somehow increase the variance and, therefore, require still more samples. If this happens, the additional samples must be taken and the variance recalculated to determine sample adequacy.

Example Use of Sample Adequacy Formula for Tree and Shrub Counts

In this example, the permittee has taken an initial group of ten randomly located sampling circles. The results of this sampling are as follows:

sampling circle no. (n)	countable trees/acre x	x^2
1	7	49
2	10	100
3	4	16
4	5	25
5	10	100
6	11	121
7	3	9
8	7	49
9	10	100
10	10	100
	$\Sigma x =$ 77	$\Sigma (x^2) = 669$

now we need to calculate the variance, s^2

number of sampling circles (n) = 10

$$s^2 = \frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}$$

or, put into words:

$$s^2 = \frac{\text{sum of squared values added} - \frac{\text{square of sum of all values}}{\text{\# of values}}}{(\text{number of values} - 1)}$$

from the data in the above example, we calculate:

$$s^2 = \frac{669 - \frac{(77)^2}{10}}{9} = 8.46$$

2) Determining sample adequacy:

from the *t* table, we find *t* for a sample size of 10

n-1 = degrees of freedom

10-1 = 9 degrees of freedom for our example

from the *t* table, locate the *t* statistic for 9 degrees of freedom = 1.383

the sample adequacy formula is:

$$n = \frac{(t^2)(S^2)}{(0.1\bar{x})^2}$$

where:

$$\text{mean } (\bar{x}) = \frac{\Sigma x}{n}$$

n = the number of samples which will need to be taken

t^2 = *t* table value, squared

s^2 = variance

plugging these values into the sample adequacy formula, we get:

$$n = \frac{(1.383^2)(8.46)}{0.59} = 27.4 = 28 \text{ samples needed}$$

Since we already have taken 10 samples and the sample adequacy formula tells us we need a total of 28, the sample adequacy requirements have not been met.

When the 18 additional samples have been taken, a new variance must be calculated and the sample adequacy formula recalculated. This is to ascertain that the additional samples didn't somehow increase the variance and, therefore, require still more samples. If this happens, the additional samples must be taken and the variance recalculated to determine sample adequacy.

In this example, it would have been wise to have taken an initial sample of 15 or 20. Whenever large variation is noted, initial sample size should be increased.

The sample adequacy requirements must be fulfilled before proceeding with comparison to the standard.

Chapters 3,4,6 Addendum L

Statistical Analysis on Ground Cover Measurements

In performing statistical comparisons for ground cover, results of randomly assigned line-point transects will be compared to the success standard (seventy percent ground cover at a ninety percent confidence statistical interval), as illustrated in the following example:

Null hypothesis: ground cover on release area $\geq$ 70% ground cover.

Alternate hypothesis: ground cover on release area < 70% ground cover.

	sample results (x)	x^2	release area ground cover standard
assume that it	41%	1681	70%
took 10 samples (n)	72%	5184	
to achieve sample	89%	7921	
adequacy	42%	1764	
	69%	4761	
	80%	6400	
	42%	1764	
	57%	3249	
	77%	5929	
	89%	7921	
	$\Sigma x =$ 658%	$\Sigma x^2 = 46{,}574$	

$$\text{ground cover mean } (\bar{x}) = \frac{\Sigma x}{n} = \frac{658}{10} = 65.8$$

$$\text{standard deviation (s)} = \sqrt{\frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}} = \sqrt{\frac{46574 - \frac{432{,}964}{10}}{9}} =$$

$$\sqrt{\frac{46574 - 43296.4}{9}} = \sqrt{\frac{3277.6}{9}} = \sqrt{364.178} = 19.08$$

number of samples (n) = 10; *t* table 0.10 a df (10-1) = 1.38.

$$t \text{ calculated} = \frac{|\text{ground cover mean of release area-target ground cover}|}{\frac{s}{\sqrt{n}}} =$$

$$\frac{|65.8-70|}{\frac{19.08}{\sqrt{10}}} = \frac{4.2}{6.03} = 0.7$$

Since 0.7 < 1.38, the null hypothesis is accepted; and it is accepted that the ground cover on the release

area is greater than or equal to the target ground cover.

Statistical Analysis on Tree and Shrub Stocking Measurements

This example assumes that 80% of the trees are more than three years old. If they are not, there is no reason to proceed with this analysis.

In performing statistical comparisons for tree and shrub stocking, results of randomly assigned sampling circles will be compared to the success standard, 250 trees or shrubs/acre hypothetically in this example, at a ninety percent confidence statistical interval, as illustrated in the following example:

Null hypothesis: Sample stocking rate on release area $\geq$ the Target release stocking rate of trees and shrubs.

Alternate hypothesis: Sample stocking rate on release area < the Target release stocking rate of trees and shrubs.

	release area sample results (x)	Target release stocking rate
assume that it took 10 samples (n) to achieve sample adequacy	4	225 trees and shrubs (90% of 250) = 4.5 trees/plot (1/50 acre sampling circle area
	4	
	4	
	4	
	6	
	4	
	4	
	4	
	4	
	4	
	$\Sigma x = 42$	

sample stocking rate mean ($\bar{x}$) = $\frac{\Sigma x}{n} = \frac{42}{10} = 4.2$

If the sample stocking rate mean, $\bar{x}$, is $\geq$ the Target release stocking rate, (4.5 in this example) then the sample stocking rate of the release area is greater than the Target release stocking rate and is successful. If, as in this example, the sample stocking rate mean, $\bar{x}$, is lower than the Target release stocking rate, you must proceed with the *t* test as follows:

$$\text{standard deviation (s)} = \sqrt{\frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}} = \sqrt{\frac{180 - \frac{1764}{10}}{10-1}} = \sqrt{\frac{3.6}{9}} = \sqrt{.4} = .632$$

number of samples (n) = 10; *t* table 0.10 d.f. (10-1) = 1.383

$$t \text{ calculated} = \frac{|\text{stocking rate of release area-target stocking rate}|}{\sqrt{\frac{s}{n}}} = \frac{|4.2 - 4.5|}{\sqrt{\frac{6.32}{10}}} = \frac{.3}{\frac{.632}{3.162}} = \frac{.3}{.200} = 1.5$$

Since $1.5 \geq 1.383$, the null hypothesis is rejected. It can be determined that the sample stocking rate of the release area is not greater than or equal to the Target stocking rate. The stocking rate fails.

Statistical Analysis on Sampling Frame Data

In performing statistical comparisons for hay production when sample areas are harvested, harvest results of the randomly assigned sample areas will be compared using a t-test to ninety percent of the target or reference yield with a ninety percent confidence interval. The hypotheses should be set up as follows:

Null hypothesis: hay yield on release area $\geq$ 90% of target yield.

Alternate hypothesis: hay yield on release area < 90% of target yield.

If USDA/NRCS target yield is used as a standard, the tonnage of forage produced must be divided by 22,687.5 to convert it to sample frame weights.

Chapters 2,4,5 Addendum O

_____Data Form for Forage Crop Production Data Harvested as Baled Hay

Page__ of __

Company name: _____ Permit: _____
Check one: ___reference area: ___test area: if reference area, indicate permit to which

data will be compared. _____

Land use: _____

Acres in harvested area: _____ Plot or area number:_____

Number of bales harvested (b): ___ Number of bales weighed (n): ___

	*bale weight (x)	*bale weight (x)	*bale weight (x)	*bale weight (x)

mean ($\bar{x}$) = $\frac{\Sigma x}{n}$ = _____

test-area production per acre = $\frac{b\bar{x}}{a}$ = _____

reference-area production per acre = $\frac{b\bar{x}}{a}$ = _____

If the test area production per acre is equal to or greater than the reference production per acre, the test passes. If the test area production is less than the reference, the statistical analysis needs to be run. Refer to Addendum P.

*bale weight must be adjusted as per Addendum Q for differing soil series productivity.

Statistical Analysis on Whole Release Area Harvesting

In performing statistical comparisons for hay production when a whole field is harvested, the weights of either ten percent or fifteen small bales, whichever is greater; or ten percent or fifteen round bales whichever is greater; are converted to lbs./ac. and compared to one hundred percent of the reference or target yield, using a ninety percent or greater statistical confidence level as approved by the Permit Board in consultation with the USDA/NRCS. Release area harvest data must be compared to 100% of the reference or target yield for prime farmland and to 90% of the reference area or target yield for all other land uses. See the following example.

Null hypothesis: hay yield on release area > 100% reference or target yield

Alternate hypothesis: hay yield on release area < 100% reference or target yield

Example: size of release area: 40 acres
number of bales harvested: 125
number of bales weighed: 15

Release Area Harvest Data

* weight per round bale (x) -lbs-		x^2	100% reference area or target yield
1,100		1,210,000	
1,000		1,000,000	3,200 lbs/ac
975		950,625	
900		810,000	
1,000		1,000,000	
1,100		1,210,000	
1,000		1,000,000	
900		810,000	
1,025		1,050,625	
1,000		1,000,000	
875		765,625	
975		950,625	
1,000		1,000,000	
1,100		1,210,000	
1,150		1,322,500	
$\Sigma x = 15,100$		$\Sigma x^2 = 15,290,000$	

$$\text{mean } (\bar{x}) = \frac{\Sigma x}{n} = \frac{15,100}{15} = 1006.7 \times 125 \div 40 \text{ acres} = 3,145.9 = 3,146$$

standard deviation (s) = $\sqrt{\dfrac{\Sigma x^2 - \dfrac{(\Sigma x)^2}{n}}{n-1}} = \sqrt{\dfrac{15{,}290{,}000 - \dfrac{228{,}010{,}000}{15{,}100}}{14}} =$

* adjusted for differing soil series as per Addendum Q.

Addendum P, Page 2

$$\sqrt{\frac{190{,}000}{14}} = \sqrt{13{,}571.4} = 116.5$$

to determine the *t*-value, refer to Addendum G.

the degree of freedom is the number of samples (n) - 1

we had 15 samples, subtracting 1 = 14.

fourteen (14) degrees of freedom = 1.345 from column t. = .10

therefore, the formula to calculate t value from the harvest data is:

$$\frac{|\bar{x}_1 - \bar{x}_2|}{\sqrt{\dfrac{s^2}{n}}} = \frac{|3{,}146 - 3{,}200|}{\sqrt{\dfrac{116.5}{15}}} = 1.79$$

Since 1.79 is greater than 1.345, the null hypothesis is rejected. Crop yield data from the test area is different from the yield from the reference area.

Yield Adjustments for Release Areas Due to Differing Soil Series

When test plots and reference plots fall on different soil series, adjustments must be made to compensate for the productivity difference. Section II of the NRCS Field Office Technical Guide shall be used for this purpose. For ease of calculation, this adjustment shall always be made to the reference area yield.

Example 1:

area	soil series	productivity index (PI)
test plot	Barzo Sil 2-5%	76
reference area	Zoko Sil 1-4%	60

In this situation, the test plot has a 26.6% higher productivity index than the reference plot, so the reference plot yield is adjusted upward by 26.6%.

Example 2:

area	soil series	Productivity Index (PI)
test plot	Zoko Sil 1-4%	60
reference area	Barzo Sil 2-5%	76

In this situation, the test plot has a 21.0% lower Productivity Index than the reference plot, so the reference plot yield is adjusted downward by 21.0%.

These adjusted reference yields become the standard against which the test plot yields are compared.

In the case where several soil series are mixed during reclamation, or a reference plot contains more than one soil series, a weighted average productivity index must be determined. Weighted average productivity indices should be calculated as described in the following example:

Premine Soil Mapping Units	Productivity Index	soil acreage in reference or release area
Barco loam, 2-5% slopes	60	15
Barco loam, 2-5% slopes, eroded	50	25
Deepwater silt loam, 2-5% slopes	84	10
	total acreage	50

(15/50)(60) + (25/50)(50) + (10/50)(84) = 59.8 (weighted ave. prod. index)

The adjusted release area yield is determined by multiplying actual release area yield by percent yield adjustment.

Yield Adjustment for Moisture

Schedule of adjusted moisture contents for some crops:

Corn	18.0%	at	56 lbs/bushel
Hay	Air dry		
Sorghum	18.0%	at	56 lbs/bushel
Soybeans	18.0%	at	60 lbs/bushel
Wheat	18.0%	at	60 lbs/bushel

$$ya = \frac{100 - m}{100 - a} \times y$$

where

m = moisture content of harvested grain determined before drying

a = adjusted moisture content, for example, 18.0% for corn

y = crop yield before moisture adjustment

ya = crop yield adjusted for moisture

Example: given- 8,000 lbs. of corn from 1.5 acre field, moisture content 22%

to determine adjusted yield: $\frac{100-22}{100-18.0} \times 8{,}000 \text{ lbs.} = 7{,}609.76 \text{ lbs.}$

to determine number of bushels: $\frac{7{,}609.76 \text{ lbs.}}{56 \text{ lbs./bu.}} = 135.89 \text{ bu.}$

to determine bushels per acre: $\frac{135.89 \text{ bu.}}{1.5 \text{ acres}} = 90.59 \text{ bu./acre}$

Chapters 2,5 Addendum S

Crop Surveyor's Affidavit of Qualifications
and Crop Production Yields

Name _____ Profession _____

Company name and business address _____

_____

Telephone _____

Certification

I have sufficient education and/or experience in agriculture to evaluate crop activities employed in the production of farm crops. I was present during the harvest, and I concur with the yield results presented in this report. I am aware that there are significant penalties for submitting false information and making of false statements, representations, or certifications in this document and in attachments to this document.

_____
Signature

_____
Printed Name

STATE OF MISSISSIPPI)
) SS.
COUNTY OF)

Appeared before me this _____ day of _____, 20___

_____, to me known to be the person

described in and who executed the foregoing instrument and acknowledged that he/she executed the above as his/her free act and deed.

_____
Notary Public

My Commission Expires:

_____

FEDERAL NOXIOUS WEED LIST

The Federal Noxious Weed List shall be the most current list found at:

http://www.aphis.usda.gov/ppq/bats/fnwsbycat-e.html

Literature

Composite List of Weeds, Revised 1989. Available from WSSA, 309 West Clark Street, Champaign, IL 61820.

Important Weeds of the World, 1983. Publ. Agrochem. Div. Bayer AG, Leverkusen, Federal Republic of Germany. 711 pp.

Part 360-Noxious Weed Regulations Authority: 7 U.S.C. 2803 and 2809; 7 CFR 2.51, and 371.2(c).

LIST OF FEDERAL NOXIOUS WEEDS FOUND IN MISSISSIPPI

Amaranthaceae		
ALRSE *Alteranthera sessilis* R. Br. ex DC.,	sessile joyweed	terrestrial
Fabaceae (Leguminosae)		
PUELO *Pueraria lobata* (Willd.) Ohwi,	kudzu	terrestrial
Poaceae (Gramineae)		
IMPCY *Imperata cylindrica* (L.) P. Beauv.,	cogongrass	terrestrial
ROOEX *Rottboellia exaltata* (L.) L.f. [*R. cochinchinensis* (Lour.) W. Clayton],	itchgrass or raoulgrass	terrestrial
Solanaceae		
SOLVI *Solanum viarum* Dunal,	tropical soda apple	terrestrial

LIST OF FEDERAL NOXIOUS WEEDS PROBABLE TO MISSISSIPPI
(found in adjacent states)

Commelinaceae		
COMBE *Commelina bengahlensis* L.,	Benghal dayflower	terrestrial AL & LA
Hydrocharitaceae		
HYLLI *Hydrilla verticillata* (L.f.) Royle,	hydrilla	aquatic AL, LA, & TN

OTEAL *Ottelia alismoides* (L.) Pers.,		aquatic LA
Poaceae (Gramineae)		
IMPBR *Imperata brasiliensis* Trin.,	Brazilian satintail	terrestrial LA
Setaria pallide-fusca (Schumacher) Stapf & Hubbard,	cattail grass	terrestrial LA

Procedure for Manually Sampling Row Crops

A. Corn

1. Randomly select locations to determine sample adequacy. Follow Addendum A and Addendum H instructions. The initial number of samples to take for corn are as follows:

size of area (acres)	# samples
1 - 39	8
40 - 279	12
280 - 639	16
640 or more	28

2. Determine the row width and select the length of row to measure 1/1000th of an acre.

row width (inches)	length of row per 1/1,000 acre
10	52 feet 3 inches
20	26 feet 2 inches
30	17 feet 5 inches
36	14 feet 6 inches
38	13 feet 9 inches
40	13 feet 1 inch

3. Locate the sample site adjacent to the closest corn stalk.

4. Measure and mark the required row length.

5. Determine the 3rd and 4th ears of the row and tag these ears with a rubber band. If there are less than four ears in the first row, the last ear and next to the last ear should be tagged. In case where a stalk has more than one ear, count the top ear first. (note: An ear of corn is defined as a cob having at least one kernel. The tagged ears will be used to determine the moisture content, and at least 250 grams of grain are needed. If it does not appear that the 3rd and 4th ears will supply 250 grams of grain for a moisture test, then the 5th, 6th, and or 7th ear should be included until at least 250 grams of corn is collected.

6. Husk all ears in the measured length of row and snap the shank off as cleanly as possible. Be sure to include the ears tagged for moisture sampling.

7. Weigh the husked ears using a balance scale to obtain a field weight.

8. After weighing, put the ears tagged for moisture testing into polyethylene bags and seal. Mark the bags by sample and field number.

9. Repeat steps 3 through 8 for each sampling point.

10. All the ears saved for calculating moisture shall be brought to the nearest commercial certified grain handling facility to determine moisture content and bushel weight. Obtain a scale ticket signed by

an individual certified to run these tests verifying the moisture and weight per bushel.

11. Calculate the yield per acre for each sample using this formula:

a x b x c x d divided by e = yield per acre

where:

a = weight of all ears/sample
b = 1,000 (portion of an acre represented)
c = ear corn to shell corn factor
d = moisture adjustment factor
e = tested sample weight per bushel

An example for figuring the moisture as described in Addendum R is as follows:

$$\text{adj. factor} = \frac{100 - m}{100 - a}$$

where: m = moisture content of grain at harvest
a = adjusted moisture, example 15.5% for corn

12. Total all adjusted yields and figure an average yield.

13. Use the same above procedure when figuring yields from the reference plots, adjust the productivity based on differing soils series as per Addendum Q, and compare the yields to the test plots.

B. Soybeans

Soybean yield estimates are most accurate within three weeks of maturity.

1. Determine the number of feet of row needed to make 1/1000 of an acre from the following table. This will be a sample area.

row width (in.)	length of single row =1/1000 ac.	row width (in.)	length of single row =1/1000 ac.
6	87 ft 1 in	28	18 ft 8 in
7	74 ft 8 in	30	17 ft 5 in
8	65 ft 4 in	32	16 ft 4 in
10	52 ft 3 in	36	14 ft 6 in
15	34 ft 10 in	38	13 ft 9 in
20	26 ft 2 in	40	13 ft 1 in

2. Count the number of plants in at least ten different randomly selected sample areas and calculate the average. See Addendum A.

average=_____= a

3. Count the number of pods per plant on ten randomly selected plants from each sample area. Divide the total plants by ten and skip that many plants to count after you count the first plant. Calculate the average.

average=_____= b

4. Calculate pods/acre by multiplying plant population by pods/plant.

a x b =_____= c

5. Calculate seeds/acre by multiplying pods per acre by an estimate of 2.5 seeds/pod.

2.5 x c =_____= d

6. Calculate pounds/acre by dividing seeds/acre by an estimate of 2500 seeds/pound.

d / 2500=_____= e

7. Estimate yield by dividing pounds/acre by 60 pounds per bushel.

e / 60=_____= yield

8. Use the sample adequacy formula, Addendum H, to determine the number of samples to take.

9. Total all the samples and average to determine the yield from the test plot. Conduct the testing on the reference crop by using this same procedure, adjust the productivity based on differing soils series as per Addendum Q, and compare the yields.

10. If county average target yields are used for the standard, your average yield must be reduced by the state wide harvest loss factor for that year.

C. Grain Sorghum

1. Determine the number of heads per acre. Count the number of heads in 100 ft. of row, then calculate:

$$\frac{\text{number of heads}}{\text{100 ft of row}} \times \frac{43{,}560}{\text{Row space in ft.}} = \text{number of heads/acre}$$

2. Determine the number of kernels per head. This is a two step process for a) estimating the average number of spikelets per head, and b) estimating the number of kernels per spikelet.

a. Collect 10 heads from the 100 ft. sample area. Count the number of spikelets (branches from the main rachis) on each head. Total the number of spikelets counted.

$$\frac{\text{total number of spikelets}}{\text{10 heads}} = \text{number of spikelets per head}$$

b. Collect 9 spikelets from a "typical head; 3 from the top, middle and bottom portions of the head. Count the number of kernels in each spikelet. Total the number of kernels counted.

$$\frac{\text{total number of kernels}}{\text{9 spikelets}} = \text{number of kernels per spikelet}$$

The estimated number of kernels per head can be calculated:

number of spikelets x number of kernels = number of kernels per head

3. Calculate the number of kernels per acre using the results of steps 1 and 2.

Number of heads/ac x number of kernels/head = number of kernels/acre

4. Determine estimated yield. Sorghum averages approximately 15,000 seeds per pound. Dividing the number of estimated kernels per acre by the approximate number of seeds per pound will estimate the number of pounds per acre.

$$\frac{\text{number of kernels per acre}}{\text{15,000 kernels per pound}} = \text{number of pounds/acre}$$

5. Divide the total pounds per acre by 56 to obtain the bushels per acre.

6. The reference plot shall be measured using this same procedure, adjust the productivity based on differing soils series as per Addendum Q, and compare the yields.

7. The number of kernels per pound will vary due to growing conditions and hybrid. It is not unusual to have sorghum vary from 12,000 to 18,000 seeds per pound. In estimating grain sorghum yields, it is suggested that a range of kernels per pound values be used to get an idea of the estimated high, low, and average yields for a particular situation.

8. Use the sample adequacy formula, Addendum H, to determine the number of samples needed to measure productivity.

D. Cotton

1. Determine the number of bolls per acre. Count the number of bolls per Sample Row, based on row spacing, then calculate:

row width	sample row length	For 40" row spacing use: (Number of bolls per 13'1") (1000)=
40"	13'1"	Total number of bolls per acre
38"	13'8"	
36"	14'2"	Repeat this method four times and average the results.
32"	16'4"	

2. Determine the number of bolls needed to produce one pound of seedcotton. Find the average boll weight in grams and convert to pounds. Calculate:

$$\frac{454 \text{ grams/pound}}{\text{Average weight/boll}} = \text{number of bolls needed to produce one pound of cotton.}$$

3. Determine the number of pounds of lint needed to produce one bale of cotton.
   a. Only 35% of seedcotton (cotton newly picked) is considered lint.
   b. It takes 480 pounds of lint to make one bale of cotton.

calculate: $$\frac{480 \text{ pounds of lint/bale}}{35\% \text{ seedcotton}} = \text{pounds of seedcotton to make one bale of cotton}$$

4. Determine the number of bolls per plant needed to produce one bale of seedcotton.

calculate: $$\frac{(\text{number of bolls per pound of seedcotton})(\text{pounds of seedcotton per bale})}{\text{Total number of plants per acre}} =$$

Number of bolls per plant needed to produce one bale of seedcotton per acre.

Chapters 4,7 Addendum V

Summary Data Form for Line-Point Transects

Example of format for summarizing line point transect data

Page __ of __

Company Name _____ Permit No. _____

Check one: __ Reclaimed area __ Reference area: if reference area, indicate permit to

which data will be compared. _____

Land use _____

Acres in sampling release area _____ No. of transects used (n) _____

Date of sampling _____

transect no. (n)	acceptable points found (out of 100) (x)
I	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

Σn = _____ Σx____

mean ($\bar{x}$) = $\Sigma x/\Sigma n$ = _____

Chapter 2,4,5 Addendum W

Pastureland and Grazing Land Forage Production Standards For Post Mined Soils

The purpose of this document is to identify plant species suitable to control soil erosion and sustain the original expected forage production for coal mining sites in Choctaw County, Mississippi. Selected plant species are based on soil suitability and adaptation to the conditions of the selected site.

To provide proper treatment, an adequate supply of nutrients must be available for plant use. An adequate supply of nutrients will be applied according to a soil test.

Below are some plant species that are well suitable for the area disturbed:

Bahiagrass Common Bermuda Hybrid Bermuda
Kobe Lespedeza White Clover Crimson Clover

Site Preparation.
The site will be smoothed and shaped, where needed, to permit the use of conventional equipment for establishment and maintenance of needed vegetation. Graded slopes in the area will not be greater than 6:1. Strip and stockpile topsoil and spread evenly over the treated area prior to seedbed preparation.

Seedbed Preparation.
The soil will be thoroughly pulverized a minimum of 4 inches deep and harrowed to a uniform, smooth surface. Lime and fertilizer will be incorporated during seedbed preparation. Cultipack before and after planting.

Fertilizer and Lime.
Apply lime and fertilizer according to a soil test or make an initial application of 78 pounds of actual N – P – K and maintain a level of 65 pounds of actual N, P, and K per acre each year and pH at 6.0 to 7.0 for best results. For grass-legume mixture, apply about ½ the amount for nitrogen.

Table 1. Planting Recommendation

Plant species	Planting date	Seeding rate in lbs. pure live seed per acre		Seed depth (inches)
		alone	mix	
Bahia grass	March-June	30	20	1/4
Common Bermuda grass	March-May	8	3	1/4
Hybrid Bermuda grass	March-July	1/	1/	2-3
Kobe Lespedeza 2/	March-May		15	1/4
White Clover 2/	Sept.-November 15		3	1/4
Crimson Clover 2/	Sept.-October		25	1/4

1/ Plant 25,000 sprigs when planting alone and 20,000 when planting with a legume mixture.

2/ Legume seed will be inoculated with proper inoculant.

Management.
Do not cut annual lespedeza more than once a year. Make the cutting early enough to allow plant to mature seed after hay is harvested. For grasses and grass-legume mixtures, make the last cutting at least one month prior to the end of the growing season. For warm season grasses with winter legumes, apply P and K in September. Make first application of nitrogen in June; second application, if needed, in mid-July.

Table 2. Pasture and Hayland Management

Plant Species	Growth stage to begin		Minimum height	
	cutting	grazing	cutting	grazing
Bahia grass	Boot to flower	5"	2"	3”
Common Bermuda	Boot to flower	5"	2"	3"
Hybrid Bermuda	Boot to flower	6"	3"	4"
Kobe Lespedeza	Bloom	6"	3"	3"
Grass-Legume mixture	½ bloom of legume	5"	4"	3"
Tall Fescue	Boot	6"	3"	3"

Apply N – P – K immediately after growth begins.

Note: Grazing should be done in keeping with the minimum heights given in Table 2 on minimum cutting height above.

Note: AUM (Animal-Unit-Month) from Table 5.--Land Capability and Yield per Acre of Crops and Pasture, of the Soil Survey of Choctaw (or any other) County must be converted to tons per acre. One AUM equals 780 pounds of dry matter forage.

For example. $\frac{2000}{780} = 2.56$

For common Bermuda on Aerial soil type, the expected yield under a high level of management is 9.0 AUM

9.0 x 2.56 = 23.04 tons per acre

References

Bonham, Charles D., 1989, Measurements for Terrestrial Vegetation: Wiley, New York, 338p.

Chambers, Jeanne C., and Ray W. Brown, 1983, Methods for vegetation sampling and analysis on revegetated mined lands, General Technical Report INT-151. Ogden, UT: United States Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station, 57p.

Natural Resources Conservation Service and Mississippi Cooperative Extension Service, no date, NRCS Field Office Technical Guide: Natural Resources Conservation Service in cooperation with the Mississippi Cooperative Extension Service, variously paginated.