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DEVELOPMENT OF PRE-MINING AND RECLAMATION PLAN RATIONALE FOR SURFACE COAL MINES

Volume III of III
Legal Controls Of Surface Mining

Prepared For

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Bureau of Mines

By

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FOREWORD

This report was prepared by Dames & Moore, 605 Parfet Street, Denver, Colorado 80215, under USBM Contract Number JO255002. The contract was initiated under Public Law 89-672; 80 Stat. 951 dated October 15, 1966, and Appropriation Act for Energy Research and Development Activities for Fiscal Year 1975 (Public Law 93-322; 88 Stat. 277). It was administered under the technical direction of the Spokane Mining Research Center with Mr. Lewis M. McNay acting as Technical Project Officer. Mr. John J. Arnold was the contract administrator for the Bureau of Mines.

This report is a summary of the work recently completed as part of this contract during the period of 25 June 1975 to 23 April 1976. This report was submitted by the authors on 25 June 1976.

Volume I, The Rationale for Data Acquisition, and Volume III, Legal Controls of Surface Mining, are intended to be comprehensible independent reports. Some reference is made in Volume I to the legal basis of data requirements and to presentation formats found in Volume III. Volume II, Methods of Data Acquisition, is closely tied to Volume I discussions of stages in mine development, staffing, and data requirements. The authors recommend that Volume I be read prior to the use of Volumes II or III. Volume II should be useful to readers responsible for the development or review of work plans at the various pre-mining stages. Volume III is most suitable for readers interested in maintaining an updated detailed comparison of state and federal surface coal mining regulations.

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VOLUME III

The objective of Volume III of this report is to provide a concise review of six major types of legal constraints, controls, and regulations on surface coal mining in the United States, as of January, 1976. At the same time, an attempt is made to format the details of federal and state exploration, mining, and reclamation regulations such that point-by-point comparisons can be made and updated as revisions occur. Thus, Volume III should provide both an executive overview and a user's manual of legal controls of surface coal mining.

8.0 LEGAL CONTROLS OF SURFACE MINING

To understand some of the origins, types, and trends of legal controls on surface mining, it is necessary to be familiar with some general background particularly with respect to the political climate. It is also helpful to recognize the sources and types of legal controls and the various contexts in which surface mining plans and operations may be challenged. Subsequent sections of this chapter summarize federal and state legislative trends and controls for the 27 states having surface mineable coal resources, referring to detailed analyses in the Appendicies.

8.1 GENERAL BACKGROUND

Earth Day 1970 heralded the beginning of the modern environmental movement, which actually was a regeneration of environmental awareness and "ecological" concern across the nation. Working in tandem with the new environmental movement have been several major emotional issues, notably strip mining per se and the goal of energy self-sufficiency. Network television programs have been devoted to actual and alleged surface mining problems in Appalachia. Surface mining opponents, including a number of ranchers and farmers in the West, have created a storm center of protest. On the other side of the controversy, some industry and government spokesmen have promoted the concept of "energy self-sufficiency by 1985," which many consider an impossible dream to which the nation nevertheless seems committed in terms of dollars, programs, and policies.

The environmental movement, together with the deplorable surface mining practices of some operators, has increased public insistence on the imposition of strict legal and institutional controls on surface mining. Such controls are deemed by lawmakers to be necessary not only during the operations phase but also during the exploration and post-mining phases. These controls are visible in the proliferation of a multiplicity of federal, state, and to a large extent, county or local permits, approvals, certifications, licenses, and other forms of permission that must be secured by a mining operator or developer in order to proceed. There are a variety of controls which affect surface mining operations, including

- a) Federal and state Environmental Policy Acts (public disclosure of plans);
- b) Requirements for detailed pre-mining plans and periodic progress reports;

- c) Requirements for meeting federal and state water quality, air quality, and occupational safety standards;
- d) Assurances that water supply is sufficient, dependable and that its use is within the legal rights of the permittee; and
- e) Compliance with standards for mined land reclamation, including specific recontouring and revegetation requirements.

Enforcement of these controls is dependent upon a variety of factors such as the political climate, agency competence, and court actions. The political climate is fickle and subject to change without notice if it appears that a potential controversial project (e.g., surface mining operation) should either be supported or opposed by a particular political candidate or office holder. Public pressure, often a major enforcement mechanism, is spotty and uneven as it jumps from controversy to controversy. Projects that have somehow escaped the attention of the press and public, and have thus not become controversial, are virtually immune to this kind of control. Major social and economic issues of the day such as the "energy crisis" also contribute to the political climate in various ways.

Enforcement of controls is also dependent upon the training, competence, and dedication of the personnel of various government agencies having jurisdiction. Although it was not within the scope of this investigation to assess this rather fluid control mechanism, it is evident from a review of state statutes, regulations, and permit forms that equal statutory authority does not necessarily result in equal legal controls.

Court actions, increasingly popular enforcement mechanisms for a number of environmental organizations, are usually based on allegations that agency personnel are not properly or adequately implementing certain types of controls.

The major context in which proposed or operating surface mines are challenged or opposed, of course, is political, since this type of a forum is provided in a democratic society. Even though "no growth" may in fact be the objective of some, but certainly not all, of those opposing or appearing to oppose surface mining, this objective is rarely if ever admitted. Instead, the challenge or opposition is manifested in expressed concern about environmental effects,

changes in lifestyle, effects on quality of life, and the anticipated financial burdens encountered by providing community support facilities. Very rarely do members of the environmental community contribute suggestions on how the mining operation might be undertaken to avoid or mitigate certain types of environmental impacts. Usually the controversy arises in the context of whether or not there should be a mining operation to begin with.

As a result of these public pressures, which are interpreted in various ways in the political process, the surface mining operator sees new legislation developing to control types of activity that have not previously been controlled, administrative actions to impose more stringent regulations, and the handing down of adverse judicial opinions. These usually result in an extremely negative reaction on the part of actual or potential surface mining operators and a consequent hardening of the opposition. Thus the controversy over surface mining, rather than decreasing over time, seems to be almost daily exacerbated by the actions and statements of either proponents or opponents.

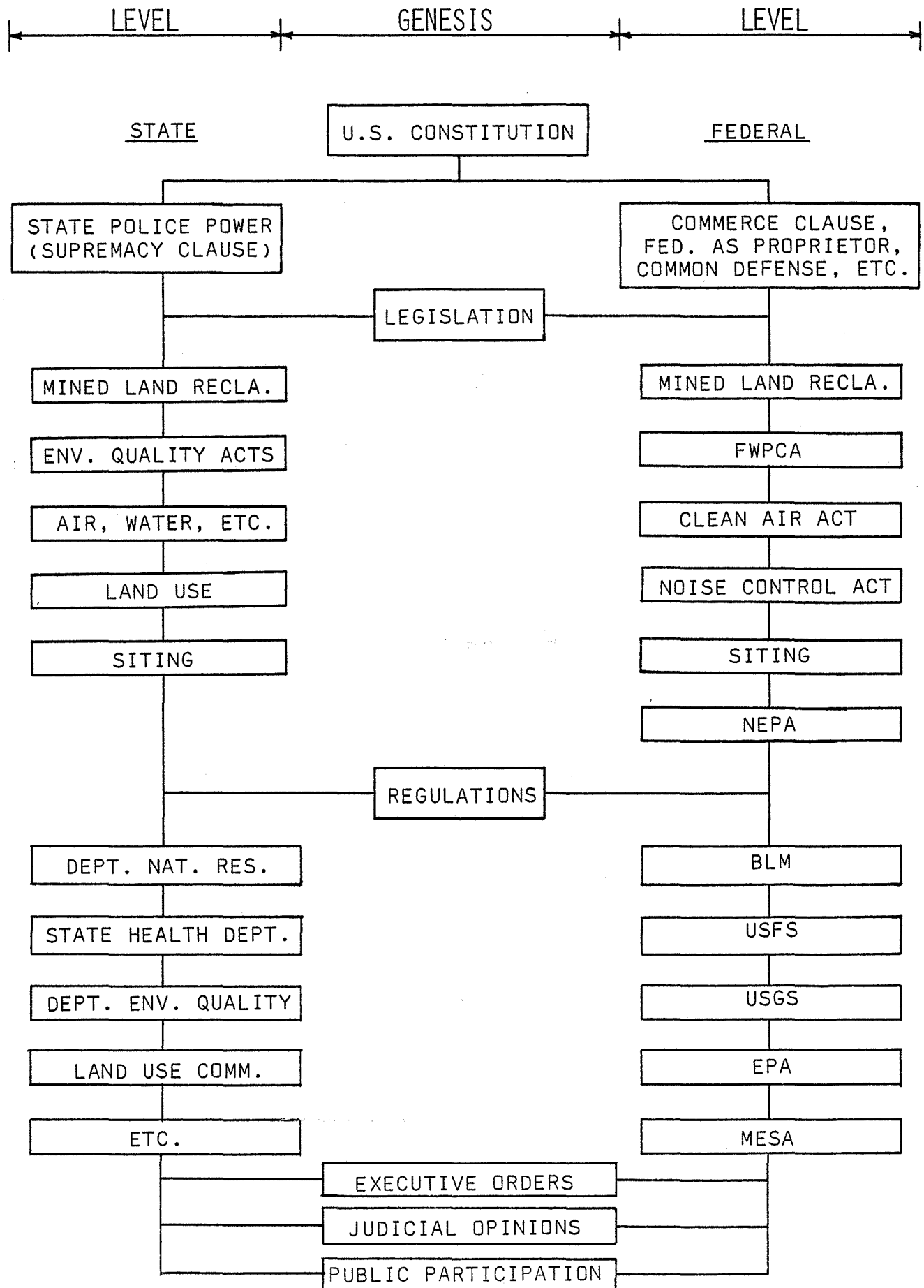
8.2 SOURCES AND TYPES OF LEGAL CONTROLS

Legal controls on surface mining do not just spout forth spontaneously from the wellstream of public opinion or opposition. They are fundamentally bottomed on a firm constitutional base. The types of controls are basically in five areas at both the federal and state levels: legislation, regulation, executive orders, judicial opinions, and public participation (Table III-1).

8.2.1 The Legal Genesis

All laws and regulations have a legal beginning which is usually based on some constitutional provision. While it is true that judicial opinions, many of which suggest that the legislative or administrative branches of government take some action, can also be construed as generating various laws and regulations concerning surface mining, the constitutional base is the primary one to be considered in this brief discussion.

Federal - Article I, Section 8 of the Consitution of the United States grants to the Congress the power "to regulate commerce with foreign nations, and among the several states, and with the Indian tribes." While the courts have generally held that the "commerce clause" empowers the Congress to regulate interstate but not intrastate commerce, a long line of decisions has interpreted this Congressional authority



TYPES OF LEGAL CONTROLS OF SURFACE MINING

TABLE III-1

so broadly as to make it extremely difficult to identify activities which do not in some way affect interstate commerce. Since the product of coal surface mining is either shipped to other states or the energy therefrom utilized in other states, there is no constitutional difficulty in the federal government's regulating such activity. In addition, the effects of environmental degradation such as air and water pollution are not confined by artificial boundaries but are interstate and even international in character.

The federal government also derives its authority from the Constitution to regulate coal surface mining as a proprietor of public lands. Article IV of the Constitution grants to the Congress the "Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States". This gives Congress the authority to regulate the use of federal public lands and associated resources that is even broader than that conferred by the "commerce clause." The legal argument can be made that it may also be "necessary and proper" for the federal government to protect and enhance the environment of its own property by regulating the use of some adjacent, nonfederal lands. Agencies primarily responsible for administration of regulations governing the use of federal lands include the U. S. Bureau of Land Management (BLM), U. S. Forest Service (USFS), the National Park Service (NPS), and the Bureau of Indian Affairs (BIA).

Other constitutional authority conferring upon the Congress the power to regulate coal surface mining includes: the authority to provide for the common defense and security of the nation, the authority to approve interstate compacts, and the power to enforce environmental standards under the "equal protection clause" of the Fourteenth Amendment.

State and Local Government - The Tenth Amendment to the U. S. Constitution confers upon the several states all powers "not delegated to the United States...or to the people." This is also known as the "supremacy clause" which makes it apparent that there are a number of regulatory areas in which the federal government is deemed to have preempted state authority. Much of this preemption is based on the "commerce clause."

The powers remaining to the states are generally known as "police powers" which confer upon the states the right "to prescribe regulations to promote the health, peace, morals, education, and good order of the people..." The language most commonly utilized in state statutes and court decisions is "health, welfare, and safety." A "police

power" regulation, e.g., state strip mining reclamation requirements, has to meet two basic tests: (1) that it be for a legitimate and obvious health, welfare, or safety purpose; and (2) that it be applied equitably and "reasonably."

Local governmental units may regulate under the police power only to the extent delegated by state laws and constitutions.

8.2.2 Types of Legal Controls

As was stated previously, the major types of legal controls flow from the legislative, executive (regulatory), or judicial branches of government. Response to public opinion by surface mining operators is also a form of control provided in most permit review processes.

Legislation - There is extensive proposed, pending, or enacted legislation at the federal and state levels affecting surface mining. This discussion represents only a brief, skeletal review.

Federal Level

The bulk of enacted legislation most directly affecting surface mining is at the state level, although a great deal of legislation has recently been introduced in the Congress. This legislation, and the regulations which flow therefrom, control every phase of surface mining operations: exploration, mine planning, mine construction, mine operations, and even post operations.

Mined Land Reclamation - It would be a major mistake to assume that the only significant federal legislation affecting coal surface mining is that specifically concerned with the requirements for mined land reclamation, the so-called "strip mining bills" such as H.R. 25 which President Ford vetoed, and the Federal Coal Leasing Amendments Act of 1975, S. 391, as passed in 1975 by the Senate. This type of legislation, however proposed, usually is concerned with land use planning, exploration plans, premining plans, permit application requirements, data required to be furnished by prospective lessees, requirement for bonds, grounds for approval or denial of mining permits, and public participation. However, the mining operator is not "home free" merely by meeting all the requirements of mined land reclamation legislation.

National Environmental Policy Act - The National Environmental Policy Act of 1969 (NEPA), enacted by the 91st Congress and signed by President Nixon on January 1, 1970, is probably the most significant - and controversial - piece of environmental legislation ever enacted. Hundreds of cases have been brought to the courts by environmental plaintiffs alleging some violation of the statute, e.g., failure to file an environmental statement, inadequacy of the statement in some respect, or failing to use the environmental information discovered in the decision-making process. Almost all of this litigation has been generated by Section 102(2)(C) which requires all agencies of the federal government to include with every proposal for a "major" federal action "significantly affecting the quality of the human environment" a detailed statement on: (1) the environmental impact of the proposed action; (2) any adverse environmental effects which cannot be avoided should the proposal be implemented; (3) alternatives to the proposed action; (4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and (5) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

There have been cases based on Section 102(2)(D) which requires a study and description of appropriate alternatives to any proposal involving "unresolved conflicts" which is certainly characteristic of proposed surface mining. The cases have demonstrated that examination of alternatives must be more than a pro forma exercise that serves to justify the project.

NEPA implementation as it affects surface mining is discussed in the "Federal Regulations" section on page .

The Clean Air Act - The Clean Air Act and its numerous amendments have broad land use control potential, including direct and indirect requirements for the siting of surface mining operations. It provides the U. S. Environmental Protection Agency (EPA) with a major rationale and legal mandate for entering into a form of land use control and thus accomplishes indirectly what has not yet been obtained directly through Federal land use legislation. While several sections of the Act could possibly affect surface mining, the provision for the states to carry out "implementation plans" to meet primary and secondary national ambient air quality standards is the most significant since such plans provide for land use and transportation controls through the regulation of "complex sources". A complex source is defined

as a facility (such as a surface mining operation) which by triggering secondary activity may cause air pollution. Secondary activities are usually defined as shopping centers; sports complexes; residential, commercial, or industrial developments; recreational areas; highways; sewer, water, power, and gas lines; and "other such facilities which will result in increased emissions from motor vehicles or stationary sources." In other words, a surface mining operation would be controlled from an air quality standpoint because of its secondary or "offsite" impacts. The complex source regulations set the stage for the establishment of a state permit system for any major industrial facility on the ground of increased potential for direct or indirect air pollution.

In response to the famous 1972 "nondegradation" case of Sierra Club vs. Ruckelshaus, the EPA and various state agencies have promulgated "significant deterioration" regulations under which three major air pollution control "zones" would be established. There is great debate over whether such regulations could or should "stop" all surface mining operations in parts of the West which might be considered by some to be "pristine" zones. Currently, amendments to the Clean Air Act, including non-degradation provisions, are being considered by the Congress.

Federal Water Pollution Control Act Amendments of 1972 - All industrial facilities and other "point source" polluters which discharge anything into almost any body of water are subject to the provisions of the Federal Water Pollution Control Act (FWPCA). Of interest to surface mining operations, the FWPCA controls "point sources" (e.g., wastewater coming out of a pipe or ditch) but it does not control groundwater seepage, leaching of soils, or storm runoff. The goal of the FWPCA is "zero discharge" by 1985, which many consider to be impossible of fulfillment, and attainment of a set of interim goals in 1977. Unfortunately, the FWPCA is a piecemeal environmental quality effort which does not recognize the relationships between water quality, air quality and solid waste disposal--critical factors in surface mining operations. The coal industry recognizes the importance of these controls and has been working with EPA to develop standards.

Miscellaneous Federal Legislation - The Noise Control Act of 1972 gives standard setting authority to EPA which is limited to "new product emissions." Surface mining operations would probably be more directly affected by the Occupational Safety and Health Act of 1970, the Federal Coal Mine Health and Safety Act of 1969, and the Federal Metal and Nonmetallic Mine Safety Act of 1966. All of these would regulate noise

from the standpoint of health to workers although not to surrounding communities.

Federal legislation can also be expected in the areas of land use and industrial siting. Although the Land Resource Planning Assistance Act--the so-called "Jackson Bill"--has yet to be enacted, it has already had considerable influence upon other proposed legislation. It is possible that some mining operations could be prevented altogether under the proposed Public Land Policy and Management Act ("BLM Organic Act") in that "areas of critical environmental concern" would be protected in order to "prevent irreparable damage to important historic, cultural, or scenic values, or natural systems or processes, or life and safety as a result of natural hazards."

State Level

Since much state environmental quality legislation derives from or is required by federal legislation, the same patterns emerge in mined land reclamation acts, environmental quality acts, land use controls, and industrial siting controls. The states must comply specifically with detailed federal requirements in terms of state air quality and water quality legislation.

Mined Land Reclamation - All of the states with surface mineable coal resources, with the exception of Arizona, have enacted some type of mined land reclamation law ranging from very liberal to extremely stringent requirements. Without question, the most stringent requirements have been enacted by the State of Montana in the west and by Pennsylvania and West Virginia in the east. The majority of state reclamation legislation centers on revegetation of mined lands and gives only secondary importance to alternative uses such as recreational, commercial, or residential development. For example, it will be shown in Section 8.4 that grading within certain contour limitations is required in at least 16 of 27 states which do not qualify the requirement with consideration of objectives other than revegetation.

Legislative trends indicate that more stringent legislation can be anticipated in Colorado, Wyoming, North Dakota, and perhaps several other western states.

Environmental Quality Acts - These take two basic forms: state governmental reorganization plans and "Little NEPA's" which are state versions of the National Environmental Policy Act.

The state reorganization plans apparently attempt to consolidate air quality, water quality, land use, noise, solid waste disposal, and other environmental quality functions in the same department. For example, this has been accomplished in Wyoming with the establishment of the Department of Environmental Quality. At least 20 states, including Montana in the West, have enacted "Little NEPA's" which are generally patterned in various forms after the National Environmental Policy Act. Thus an environmental impact statement may be required to be prepared not only by a federal agency but also by a state agency prior to the issuance of a permit or license to a surface mining operation. Some of these acts, including that of California, have been held to apply not only to the actions of state agencies but also to those of private corporations.

State Compliance with Federal Legislation - The states have specific responsibility to comply with minimum federal guidelines and standards under the FWPCA, the Clean Air Act, and the Noise Control Act. This same pattern could be expected to be followed under any federal land use legislation. Thus state air quality and water quality legislation flows from and is not separate and apart from federal legislation.

Land Use Controls - Local government land use controls, such as zoning ordinances, generally do not apply directly to surface mining operations, particularly in the West where the surface or the mineral estate belongs to the federal government. However, all zoning, subdivision regulations, and building codes do apply to many types of "offsite" activities that may be triggered by a surface mining operation. A number of states, including California, Maryland, Colorado, Montana, New Mexico, and Wyoming, have enacted legislation which gives states a much stronger voice in land use planning and regulation, a role formerly confined to local government. For example, protection at the state level of "areas of critical environmental concern" is becoming very popular and could directly affect surface mining operations. Many of the states are fearful that if they do not assert a stronger land use role that the federal government will preempt the field, particularly in the area of energy development.

Industrial Siting Acts - California, Maryland, and Washington have had legislation on the books for several years which applies at least to the location of major developments, including energy facilities, if not to the design, construction, and operation of those facilities. Montana

and Wyoming have recently enacted siting legislation which would affect surface mining activities directly in Montana and indirectly in Wyoming. Energy facilities siting legislation which would affect surface mining for coal, oil shale, and uranium is contemplated for Colorado. Again, many of the states are getting into the industrial siting field in order not to be preempted by the federal government.

Regulations - Regulations, which are not to be confused with statutes or ordinances as enacted by legislative bodies, are promulgated and adopted by executive (administrative) agencies to implement a legislative mandate or carry out a responsibility which is usually, but not always, within the discretion of the agency. Although familiarity with legislation is important, getting a surface mining operation "on stream" is primarily an exercise in administrative law and an ability to bushwhack through the administrative "permit jungle." It was discovered in this investigation that a few states, such as Wyoming, West Virginia, and Washington, supply very explicit instructions, sample formats, and a unified "how to" booklet. Other states have well-organized regulations. Most states still have the "jungle". The federal "permit jungle" is worse still.

Federal

Among the major federal agencies with jurisdiction over some or all aspects of surface mining activities are the USFS, BLM, U. S. Geological Survey (USGS), BIA, EPA, and, indirectly, the Council on Environmental Quality (CEQ). Although less frequently, the surface mining operator may also have to deal with the Army Corps of Engineers, the Bureau of Reclamation (Bu Rec), the Bureau of Sport Fisheries and Wildlife, the NPS, and the Mine Enforcement and Safety Administration (MESA). There are often overlapping jurisdictions and problems caused by duplication of effort. For example, the USFS, the BLM, and the USGS all have enacted or promulgated regulations governing various aspects of surface mining. Although the USFS and the September 5, 1975, USGS/BLM proposed regulations have not been adopted, there is no question but that these agencies have been given enough discretionary authority by statute to revise the current "211" and "216" regulations. It is because of this regulatory hierarchy that the surface mining operator is subjected to what some refer to as the "permit jungle" which requires applications before numerous agencies, often with accompanying hearings, for various types of permits. For example, it was determined in 1975 that 27 different permits, most of them federal, were required for a particular coal surface mining operation in Wyoming.

Another example of quasi-regulatory authority that is sometimes overlooked is the Office of Management and Budget (OMB). OMB attempts to carry out Administration policy within the entire federal bureaucracy using the federal budget as the principal lever. OMB has responsibility for interagency coordination and various federal agency management problems. OMB frequently reviews proposals and programs of environmental agencies like the EPA and the CEQ with regard to their economic effects. However, OMB is not per se a "regulatory agency".

In addition to the regulations of various federal land management agencies, surface mining operations are greatly affected by EPA regulations on air quality, water quality, and solid waste which are promulgated to carry out some of the legislative mandates already discussed.

Another agency which can considerably affect proposed surface mining operations is the CEQ, an agency within the executive office of the President which is responsible under NEPA for issuing detailed guidelines on the preparation of environmental impact statements (EIS's) and for reviewing such statements as to their adequacy. In turn, each agency to which NEPA applies (e.g., USFS, BLM, USGS) has adopted their open EIS guidelines patterned generally after the CEQ guidelines with some variation. Intimate knowledge of both the CEQ and the lead agency EIS guidelines is critical for any proposed surface mining operation since attempting to deny that a federal permit or license for a surface mining operation is neither a "major" nor "significant" action is an exercise in futility. It must be assumed that an EIS will be required at some point in the permit process for a new mine. Environmental impact statements, of course, must be reviewed by appropriate federal and state agencies as well as by the public.

State

Obviously, the regulatory framework affecting surface mining is not confined to the federal level. State agencies with jurisdiction over air quality, water quality, solid waste management, radiation, mined land reclamation, and other related matters also have authority to issue detailed regulations consistent with their legislative authority. State regulations often go into considerably more detail in regard to specific requirements than do the statutes from which they derive their authority. For example, the Colorado Land Use Commission has promulgated extremely detailed regulations on land use to be implemented at the county and state level under the Land Use Act of 1974 (H.B. 1041).

Those states with "Little NEPA's" also have detailed guidelines for the preparation of EIS's. Section 8.4 will show that some permit requirements are not founded on regulations, but have been added by administrators in "instructions for completing permit applications."

Executive Orders

An occasional source of legal control over surface mining is the executive orders at both the federal and the state level. For example, the EPA was initially established in the executive branch as an independent agency pursuant to Reorganization Plan III, effective December 2, 1970. This was later adopted by the Congress. (35 Fed. Reg. 15623, 84 STAT. 2086) Several executive orders have given specific authority to CEQ that was not included in NEPA. In 1974, Governor Rampton of Utah established a "Little NEPA" in that state by executive order.

Judicial Opinions

Although courts are continually admonished by what some may interpret as attempts to "make law", there is no question but that judicial opinions have great force and effect on administrative agencies and legislatures. And the courts have become an often used tool for enforcement of environmental standards by various environmental groups.

Of the hundreds of cases brought under NEPA, a number of opinions can be interpreted to apply directly or indirectly to surface coal mining. Among the "key" cases is the recent opinion of the Washington, D. C. Circuit Court of June 16, 1975, holding that the Department of Interior's proposals for coal development in the Northern Great Plains constituted a "major federal action" that necessitated not only the preparation of EIS's on individual mining projects but also the filing of a comprehensive regional EIS (Sierra Club vs. Morton, 7 ERC 1977 (D.C. Cir. June 16, 1975)). In another recent case, Cady vs. Morton, a U. S. Court of Appeals held that an impact statement which covered only the initial mining plan for 770 acres was inadequate when Interior had in fact approved coal leases covering 30,876 acres on the Crow Indian Reservation in Montana (8 ERC 1097). A highly important case which should be committed to memory by proposers of any type of energy development project is Calvert Cliffs Coordinating Committee vs. Atomic Energy Commission which sets forth a number of judicial guidelines for the adequacy of environmental statements, particularly with regard to the consideration of alternatives. In Calvert Cliffs, the Court held that "NEPA mandates a rather finely

tuned and 'systematic' balancing analyses...Alternatives must be considered which would affect the balance of values..." ((444 Fed.2d 1109 (D.C. Cir. 1971), Cert. denied, 404 U. S. 942 (1972)).

Although the fact situation in the case involved a proposed ski area, the "Mineral King" case is important to prospective mining operators since it establishes that citizens may challenge governmental licenses or permits even if they do not have a direct economic interest. The court held that esthetic, conservational, and recreational values are important ingredients in the quality of life that are deserving of legal protection (Sierra Club vs. Morton, 2 ELR 20192 (1972)).

As to the responsibility of a mining company for the preparation of an environmental statement as compared with the responsibility of the federal agency, the Green County case held that NEPA requires appropriate federal agencies to prepare their own environmental statements even though private project proposers may be required to submit detailed information at the request of the agency. This often results in two environmental reports, one government and one private, being prepared (Green County Planning Board vs. Federal Power Commission, 455 Fed.2d 412 (1972)).

Although the environmental cases with the greatest notoriety have been in the federal courts, environmental litigation in state courts is widespread. For example, a widely cited state case is Friends of Mammoth vs. Board of Supervisors of Mono County, a 1972 California Supreme Court case which held that California's "Little NEPA," mandating local governmental agencies to prepare EIS's on governmental activity with significant environmental effect, applied to private developers seeding a permit for housing and commercial development. A number of state cases have challenged the constitutionality of various state environmental quality control requirements on the grounds that the legislation or regulation was not a proper exercise of the police power, was a taking of property without just compensation, or did not provide equal protection to all those sought to be regulated.

Those challenging proposed mining operations generally bring actions seeking temporary restraining orders or preliminary injunctions, both of which are a form of injunction covered by the same federal rule. The legal "theory" for bringing an injunction may be an allegation that an agency has violated a particular statute such as NEPA, or that some

"common law" infringement such as nuisance or trespass is about to be committed. The purpose of obtaining such a remedy is to preserve the status quo and prevent the continuing or proposed interference with alleged legal rights of individuals or groups. Those desiring to "stop" a proposed surface coal mining operation will almost always seek an injunction. State courts are rarely used in the West as they are considered much more conservative in land use and environmental matters than are federal courts.

Public Participation

While public opinion and controversy may precipitate decisions affecting surface mining at the legislative, administrative, or judicial level, members of the public have opportunity to participate in decision-making processes affecting surface mining under various statutes and regulations, state and federal. Public review and comment and/or public hearings are specifically required at one or more stages of numerous permit and licensing processes. For example, a public hearing is required prior to the issuance of a surface mining permit under most state legislation that requires such activities. The CEQ and various agency guidelines for preparing EIS's provide detailed procedures for circulating draft statements to the public for comment. It is generally accepted among mining companies that informal public participation and opportunities for public disclosure of mining operation plans is desirable even if somewhat risky. Thus public participation can provide a type of either legal or voluntary control or influence of surface mining activities.

8.3 LEGISLATIVE TRENDS

Appendicies H and I provide a summary of legislative trends that could affect surface mining of coal, particularly with regard to necessary permits, licenses, compliances, submissions of information, and other requirements of or conditions precedent to formulating a mining plan or commencing a surface mining operation. The summary indicates the type and detail of information and data gathering that may be necessary under certain circumstances. While not directly pertinent to mine planning or operations, other legislative trends are summarized which could directly or indirectly affect surface mining operations.

The term "legislative trends" is more accurate than "pending legislation" since legislation cannot be considered as "pending" unless it has been introduced but not finally acted upon in a current legislative session. Thus only some

of the federal legislation analyzed or summarized is, technically, pending. Nevertheless, many of the state bills affecting coal surface mining that were defeated, postponed, or vetoed in the last state legislative sessions can be expected to be reintroduced in the same or similar form.

It is apparent from the summaries of both federal and state legislative proposals that the attention of legislators has concentrated on several major areas affecting coal surface mining: land use planning, including the authority to designate and regulate development in areas of "critical environmental concern" (or similar language); energy facility siting, even though surface mines per se are not generally included; and mined land reclamation. While the fate of federal land use legislation is uncertain, it is becoming increasingly clear that the Congress is determined to enact some type of mined land reclamation legislation despite presidential vetoes or threats of vetoes. For example, H.R. 25, the "strip mining bill" vetoed by President Ford in May, 1975, could be reintroduced in the 95th Congress as part of a bill on coal leasing; mined land reclamation is still alive under S. 391.

At the state level, great emphasis is being placed on the following areas: wild, scenic, and recreational rivers and stream protection (Montana, Wyoming, Colorado); "export" policies that would either limit the amount of converted energy transported out of the state or curtail conversion of coal into energy resources for export (Montana and Wyoming); and requirements for consent of a surface owner prior to mining a severed mineral estate (Montana, Wyoming, North Dakota). There is also a trend to protect streams or shorelands from any kind of development activity.

By far the most popular trend at the state level with respect to environmental legislation is the enactment of "little NEPA's" that are patterned in various forms after the National Environmental Policy Act. Montana enacted a little NEPA in 1971, requiring environmental statements to be filed by state agencies; the Montana Act is almost a precise copy of NEPA. Wyoming enacted its "Industrial Development Information and Siting Act" in the 1975 legislative session patterned at least in part after detailed recommendations contained in a report of the American Bar Association. The legislation requires major developments to supply an exhaustively detailed list of socioeconomic and biophysical information. The act has the effect of a little NEPA with respect to requirements imposed on private energy development without employing any of the standard NEPA terminology.

Colorado has been attempting to enact a little NEPA since 1972 but has not yet been successful. The 1975 version would have required environmental statements for "major actions," including those of private firms, corporations and individuals. New Mexico's proposed Environmental Quality Act of 1975 would have been a replacement for an earlier act which was repealed. Unlike Colorado, the actions of private companies would not have been specifically included. North Dakota's Environmental Policy Act passed both houses of the legislature in 1975 but was then killed by the Senate at the request of the Appropriations Committee. It also was patterned very closely after NEPA. The Utah Industrial Location Act, proposed in 1975 but not enacted, has many characteristics of the siting act which Wyoming passed although some of the permit requirements would have been much closer to the language of NEPA.

There are now at least twenty states that have enacted "little NEPA" legislation although versions vary widely. There is no doubt that this trend will continue and it is predictable that most of the 27 states analyzed in this report (at present there are 8) will eventually each have some EIS requirement.

While the Federal Land Resources Planning Act, the so-called "Jackson Bill," has never been enacted by the Congress, it has already had widespread effect by having established the concept of designating and protecting from certain kinds of development "areas of critical environmental concern." Many other states, including some in the Rocky Mountains region, have adopted this approach by enacting requirements for either state or local governments, or sometimes both, to inventory such environmental components as wetlands, floodplains, wildlife habitat, historic sites, scientific resources, scenic resources, and even ecosystems. This concept was embraced by the Colorado Legislature in 1974 when it enacted H.B. 1041, which includes detailed provisions for identifying and protecting "areas or activities of state interest." While the language varies from bill to bill, legislatures in Montana, New Mexico, and Wyoming considered the same approach in 1975. The Wyoming State Land Use Planning Act was the only one to pass, however; and it defines "areas of critical or more than local concern" as being those "where uncontrolled or incompatible large scale development could result in damage to the environment, life, or property, or the short or long term public interest is of more than local significance." Such areas include fragile lands, historic lands, natural hazard lands, renewable resource lands, and new town lands, among others that may be designated.

It should be noted that the "BLM Organic Act" utilizes the same approach by proposing a national policy of protection of areas of "critical environmental concern" which would include scientific, historical, scenic, ecological, and archeological values.

Given the absolutism of some of the opposition to strip mining which characterize some of the leadership of the environmental community, it is surprising that more legislation is not introduced that would result in a total ban on this mining method. While a half dozen bills introduced but not passed in the 1975 Montana and West Virginia legislative sessions would have resulted in total or partial bans on strip mining in those states, most state and federal legislation seems to be much more concerned with how surface mining is undertaken rather than whether it proceeds. This can be interpreted as a recognition by the general public, including much of the environmental community, that some surface mining of coal is going to be necessary to meet national energy requirements.

The prudent mine operator or developer will be cognizant of legislative trends affecting surface mining. Although the 27 states with surface mineable coal resources examined in this study may vary considerably from time to time with respect to the political climate for surface coal mining, it is also true that legislative draftsmen usually borrow from each other. It is only natural for legislators and bill draftsmen in Ohio to examine both existing and proposed legislation in West Virginia, Pennsylvania, and Illinois. Likewise, draftsmen in Colorado look over the shoulders of their colleagues in New Mexico, Wyoming, and Montana. What may be a "unique" provision in one state's legislation this year, may become a regional trend next year.

It can be shown that the federal legislature and the states of Montana, Wyoming, and West Virginia are trend-setters. Table III-2 indicates the common legislative trends among eight states examined and how these compare with federal trends.

8.3.1 Mined Land Reclamation

Although the federal government has not passed a specific bill controlling mined land reclamation, the agency administrators have regulations that are effectively implemented. As shown in Section 8.4, existing federal regulations are almost as stringent as those in Montana. Colorado and West Virginia are attempting to draft and pass legislation that would place more controls on surface mining.

TABLE III-2

COMMON LEGISLATIVE TRENDS AMONG THE EIGHT STATES¹
EXAMINED AND THE U. S. CONGRESS

<u>Mined Land² Reclamation</u>	<u>EIS Req't</u>	<u>Land Use Controls</u>	<u>Energy Facility Siting</u>	<u>Surface Owner Consent</u>	<u>Ban Mining In "Critical Areas"</u>	<u>Limits on Export of Coal/Energy</u>	<u>Moratorium On New Permits Or Leases</u>	<u>Stream Protection</u>
Montana	Federal	Montana	Montana	Montana	Montana	Montana	W. Virginia	Federal
Wyoming	Montana	Wyoming	Wyoming	Wyoming	Wyoming	Wyoming		W. Virginia
W. Virginia	Utah ³	Colorado	Utah	W. Virginia	Colorado			Wyoming
Colorado	N. Mexico	Federal	Colorado	N. Dakota	Federal			Colorado
N. Dakota	Colorado		Federal	Federal				Montana
Ohio	N. Dakota							
N. Mexico								
Utah								

Federal								

¹In approximate order of stringency as of January, 1976. The dashed line separates states (or Federal Government) that have enacted such legislation from those that have introduced it in the 1975 legislature.

²All appear in this column.

³By Governor's Executive order.

8.3.2 Environmental Impact Statement Requirements

NEPA has furnished a model for more than 20 of the 50 states. Five of the 8 states examined for trends either have passed or had introduced a "little NEPA". (Also, see "EIS Requirements" on III-39. When facilities are capitalized at over \$50 million, the Wyoming Siting Act imposes requirements for information similar to an EIS.

8.3.3 Land Use Controls

Perhaps the most controversial of all subjects that affect surface mining (in competition with "surface owner consent") are the various forms of land use controls passed or being drafted in federal and state legislatures. States that have such statutes are currently trying to expand, revise, or clarify them to make them workable.

8.3.4 Energy Facility Siting

Siting acts are important to coal mining, particularly when large reserves are considered for mine-mouth facilities such as steam coal-fired power plants or coal conversion plants. Careful early siting studies are required in Montana and Wyoming -- states which definitely are trend-setters in the west.

8.3.5 Surface Owner Consent

Of the 8 states examined (out of 27 states having surface mineable reserves), only Montana has passed this controversial legislation. Its effect on lease development may not be known for several years because of the slow-down in mine prospecting, but 3 states may soon follow Montana's example.

8.3.6 Ban Mining in Critical Areas

Areas of "critical environmental concern" are described in proposed USGS/BLM rules dated September 5, 1975, and in some bills introduced in the states shown. Montana will probably pass this legislation to extend land use controls and facility siting restrictions.

8.3.7 Moratorium on New Permits and Leases

The U.S. Congress has not passed or lifted a moratorium on permits and leases, but the Secretary of the Interior announced in January, 1976, that the administrative policy would be lifted gradually within the next two years.

West Virginia introduced a bill in 1975 to ban surface mining entirely on a statewide basis. Although the bill did not pass, there is an effective moratorium on about half of West Virginia counties. It will become increasingly difficult for prospective surface operators to find a "haven" from stringent state controls.

8.3.8 Stream Protection

As discussed in Appendices A and B, stream protection may be afforded by several forms of control. EPA is implementing the most universal effluent standards (in draft form as of January, 1976) and is assisting states in meeting certain stream quality criteria. West Virginia's existing implementations of stream criteria could be augmented by a bill similar to S.B. 141, "Operation Coal Waste Clean-Up". Thus, "unique" solutions may not apply to all states.

8.4 LEGAL CONTROLS AS OF JANUARY, 1976

Determination of existing legal controls is an exercise not unlike skeet shooting (the targets are moving), especially in states where surface coal mining is a highly-charged controversial issue. There is a very real danger that any detailed comparison of federal and state legal controls will be out of date before it is widely distributed. These potential problems have not been entirely circumvented in this section since it is perhaps the broadest and most in-depth analysis of actual requirements compiled to date.

The guiding principles in the development of a federal-state comparison matrix were that it be

- a) Legally sound (sources properly footnoted)
- b) Logically formatted by stage in planning and type of report
- c) Complete in terms of data required
- d) Amenable to a comparison of proposed and existing federal rules and regulations with those of the 27 states having significant surface mineable coal reserves
- e) Possible to up-date using the footnoted references

Lawyers often point out that it is important to indicate the "challengeability" of a requirement. As discussed in Section 8.2, the genesis of controls begins with federal and state constitutions which authorize powers and responsibilities

among the several levels of executive, legislative, and judicial branches of government. Therefore, the matrix readily identifies, in descending order of authority:

- (A) - Acts or statutes, which in some states are very detailed and in others designate authority for rulemaking under very general guidelines.
- (R) - Administrative regulations, rules, and orders, under the assumption of constitutional or legislative authority to promulgate discretionary "police powers".
- (G) - Guidelines for public compliance with statutory or administrative requirements, usually published by the controlling agency administrator.
- (I) - Instructions for completion of forms, or items listed on the forms, normally drawn up by the staff which reviews permit applications and usually are very explicit.

Comparisons have been made systematically and are presented by stage of mine planning, with the 27 states listed in alphabetical order.

8.4.1 Scope of Investigations

Although surface coal mining, like many other industries, is subject to literally dozens of legal controls under federal, state, and local authority, this investigation was limited to the area of controls directly affecting the development of a mining and reclamation plan. Mining regulations refer in many cases to applicable air and water quality regulations. The land quality divisions of some state environmental quality departments exercise the mining permit-granting authority. Federal agencies, and 9 out of 27 states examined, have EIS requirements for permit actions.

The rationale for data-gathering at any stage of mine development, shaped by technical and economic considerations, is reflected clearly by the mining regulations; so these were scrutinized in detail and documented in this section. Applicable air and water laws are noted when mentioned in the mining regulations, guidelines, or instructions for completion of forms. It was beyond the scope of this study to document all of the peripheral regulations, but data generation activities discussed in Chapter 5 address the situation where the most stringent peripheral requirements exist.

States having EIS requirements are noted on page III-39. Guidelines from states, when available, are similar to the CEQ guidelines. Since actual data-gathering activities and the format are functions of so many site and agency variables, the guidelines were only reviewed and filed as discussed in Section 8.4.2. Obviously, all environmental aspects of a project need not be considered at the same depth. The rationale to satisfy an agency's EIS requirement is discussed in Chapter 5, Volume II.

A further limitation on the scope of investigation was the practicality of assessing each agency's current administrative capability and unwritten policies. It should be noted that these factors contribute to the amount and format of data that must be submitted. Presumably, a dialogue between the prospective coal mine operator and the controlling agency should continue to be the major determining factor in assuring that legal requirements are satisfied.

8.4.2 Method of Investigation

The USBM associates states with coal geology, and a logical approach to dividing the states into units with some similarity is by coal province. There are six provinces shown in Table III-4 (including Texas under the Gulf Province). Four states have coal regions in two different provinces, i.e., Kentucky, Montana, Texas and Wyoming. Since topography and other physical aspects of the regions are comparable, perhaps the approach to development of a mining and reclamation plan should be similar.

A very general summary of state documents examined (or in press, unavailable, and so forth) is given in Table III-3. For logistic and expediency purposes, the acquisition of legal documents from states was conducted primarily by telephone and the mail from regional offices in Cincinnati and Denver. Cincinnati personnel acquired the documents from 15 eastern states within the Eastern and Interior Provinces (Table III-4). Personnel in the Denver office obtained and filed documents for the remaining 12 western states. These files were then combined in Denver for review. For those interested in updating the files, a detailed telephone record is available. Many agencies must be contacted in most states to find the most recent acts, regulations, and forms that affect mining, environmental quality, and EIS policy.

The primary sources of federal mining regulations are^{1/}

^{1/} Subsequent to the study, prior to final editing, new Federal Coal Mining Operating Regulations were issued that were substantially the same as d.

G	WATER	AIR	LAND	EIS; NOTES
it	<ol style="list-style-type: none"> 1. Surface Mining Regulations 2. Application for Surface Mining Permit 	<ol style="list-style-type: none"> 1. Alabama Law - Act No. 769 2. Air Pollution Control Rules and Regulations 3. Forms and Instructions - APC 100, 101, 102, 103, 108, 110 		
Devel. ing to coal	<ol style="list-style-type: none"> 1. Law - Water, Air and Environment Cons. 2. Water Quality Standards 	<ol style="list-style-type: none"> 1. See 1 under Water 	<ol style="list-style-type: none"> 1. Solid Waste Management 2. Surface Oiling 3. Waste Disposal 	<ol style="list-style-type: none"> 1. EIS not required
and	<ol style="list-style-type: none"> 1. Rules and regulations 	<ol style="list-style-type: none"> 1. Being revised. Proposed Rule Making 2. Air Pollution Control 3. Air Pollution - 36-770 and 36-1700 4. Taxation of income 5. Permit information - HB 2200, SB 1098 	<ol style="list-style-type: none"> 1. None 	<ol style="list-style-type: none"> 1. Assumption of jurisdiction over Indian lands 2. Requirements for Environmental Impact Statements (G and F)
	<ol style="list-style-type: none"> 1. Water and Air Pollution Control Act 2. Arkansas Water Quality Standards 	<ol style="list-style-type: none"> 1. See No. 1 under Water 	<ol style="list-style-type: none"> 1. Open Cut Land Reclamation Act 	
	<ol style="list-style-type: none"> 1. Ordered - haven't arrived 	<ol style="list-style-type: none"> 1. Air Pollution Control Authority 2. Air Resources Board - fact sheet 3. Local Air Pollution Control Officials in California 	<ol style="list-style-type: none"> 1. Land use handled by counties 2. California Administrative Code 	<ol style="list-style-type: none"> 1. Environmental Impact Report required. No form available. Are approved by local jurisdiction 2. Environmental Quality Act Guidelines 3. General Background information
1 Act ise explosives	<ol style="list-style-type: none"> 1. Water quality standards 2. Regulations for state discharge permit system 3. Water Quality Control Act 4. Guidelines for control of water pollution 5. Guidelines for mill tailings ponds 6. Standard form C 7. Standard form C - permit and instructions 	<ol style="list-style-type: none"> 1. Air quality control regulations 2. Proposed Amendment to Reg. #3 	<ol style="list-style-type: none"> 1. Solid waste disposal and waste facilities 2. House Bill 1041 	
nd Reclamation Act an mit	<ol style="list-style-type: none"> 1. Environmental Protection Act 2. Rules and Regs - Ch. 3 Water Pollution 3. Regulations - Ch. 4 Mine Related Pollution 4. Instructions for application for permit 5. Permit or construction approval 6. Sludge disposal - Schedule G 7. Schedule D - Treatment Works 8. Permit for Mine Related Wastes 	<ol style="list-style-type: none"> 1. Air Pollution Control Regulations 2. Instructions for Completion of Permit Applications 3. Application for Permit - APC 200 4. Process Emission Source Form - APC 220 5. Air Pollution Control Equipment APC 260 6. Guidelines for Completion of Air Pollution Episode 7. Air Pollution Episode Action Plan 	<ol style="list-style-type: none"> 1. See No. 1 under mining, also No. 2 and No. 5 	
	<ol style="list-style-type: none"> 1. Flood Control Act 2. Application for Construction in a Floodway 3. Instructions for Application No. 2 4. NPDES Standard Form C - 4 parts and Instructions 	<ol style="list-style-type: none"> 1. Resolution 2. Appendix III 3. Instruction 4. Regulations APC 2, 3, 4-R, 5, 6, 7, 12-R, 13, 14, 15, 16, 17, 18, 19 (Sec. 4), 20, 22 		<ol style="list-style-type: none"> 1. Official guidelines to EIS still not implemented (12-8)
and to be Surface Mined	<ol style="list-style-type: none"> 1. Code Chapter 455A 2. Natural Resources Council (580) - Notice of Intended Action 3. Application for Operation Permit - 2 parts 4. Wastewater Construction and Operation Permits 	<ol style="list-style-type: none"> 1. Air Quality Rules and Regulations 		
amation Act and Reclamation	<ol style="list-style-type: none"> 1. Statutes Pertaining to Water Pollution Control 2. Procedures Relating to Discharge of Wastewaters 3. Water Appropriation Act 4. Application for Permit to Appropriate Water and Instructions 5. KSA 24-126, KSA 82a - 301 to 305 	<ol style="list-style-type: none"> 1. Special Information 2. Air Pollution Emission Control Regulations 	<ol style="list-style-type: none"> 1. See No. 1 under Mining, also No. 2 	

TABLE III-3

STATE DOCUMENTS EXAMINED

SHEET 1 OF 3

STATE	MINING	WATER	AIR	
ALABAMA	<ol style="list-style-type: none"> 1. Surface Mining Act of 1969 2. Application for Strip Mining Permit 3. Surety Bond 	<ol style="list-style-type: none"> 1. Surface Mining Regulations 2. Application for Surface Mining Permit 	<ol style="list-style-type: none"> 1. Alabama Law - Act No. 769 2. Air Pollution Control Rules and Regulations 3. Forms and Instructions - APC 100, 101, 102, 103, 108, 110 	
ALASKA	<ol style="list-style-type: none"> 1. Laws - 2. Leasing ; Location and Devel. 2. Coal Permit Bond 3. Regulations and Statutes pertaining to coal and other leasable minerals 	<ol style="list-style-type: none"> 1. Law - Water, Air and Environment Cons. 2. Water Quality Standards 	<ol style="list-style-type: none"> 1. See 1 under Water 	<ol style="list-style-type: none"> 1. Solid Waste 2. Surface Oil 3. Waste Disposal
ARIZONA	<ol style="list-style-type: none"> 1. Laws - None. Coal is on Indian land and not subject to Arizona law 	<ol style="list-style-type: none"> 1. Rules and regulations 	<ol style="list-style-type: none"> 1. Being revised. Proposed Rule Making 2. Air Pollution Control 3. Air Pollution - 36-770 and 36-1700 4. Taxation of income 5. Permit information - HB 2200, SB 1098 	<ol style="list-style-type: none"> 1. None
ARKANSAS		<ol style="list-style-type: none"> 1. Water and Air Pollution Control Act 2. Arkansas Water Quality Standards 	<ol style="list-style-type: none"> 1. See No. 1 under Water 	<ol style="list-style-type: none"> 1. Open Cut L
CALIFORNIA	<ol style="list-style-type: none"> 1. Law - SB #756, 2. Guidelines - 2 	<ol style="list-style-type: none"> 1. Ordered - haven't arrived 	<ol style="list-style-type: none"> 1. Air Pollution Control Authority 2. Air Resources Board - fact sheet 3. Local Air Pollution Control Officials in California 	<ol style="list-style-type: none"> 1. Land use h 2. California
COLORADO	<ol style="list-style-type: none"> 1. Law - Open Mining Land Reclamation Act 2. Regulations for strip mines 3. License to operate coal mine 4. Permit to operate open mining 5. Operator's notice of activity 6. Application to store, transport, use explosives 	<ol style="list-style-type: none"> 1. Water quality standards 2. Regulations for state discharge permit system 3. Water Quality Control Act 4. Guidelines for control of water pollution 5. Guidelines for mill tailings ponds 6. Standard form C 7. Standard form C - permit and instructions 	<ol style="list-style-type: none"> 1. Air quality control regulations 2. Proposed Amendment to Reg. #3 	<ol style="list-style-type: none"> 1. Solid waste 2. House Bill
ILLINOIS	<ol style="list-style-type: none"> 1. Surface-Mined Land Conservation and Reclamation Act 2. Filing of Proposed Reclamation Plan 3. Application for Surface Mining Permit 4. Surety Bond 5. Reclamation Plan Guidelines 	<ol style="list-style-type: none"> 1. Environmental Protection Act 2. Rules and Regs - Ch. 3 Water Pollution 3. Regulations - Ch. 4 Mine Related Pollution 4. Instructions for application for permit 5. Permit or construction approval 6. Sludge disposal - Schedule G 7. Schedule D - Treatment Works 8. Permit for Mine Related Wastes 	<ol style="list-style-type: none"> 1. Air Pollution Control Regulations 2. Instructions for Completion of Permit Applications 3. Application for Permit - APC 200 4. Process Emission Source Form - APC 220 5. Air Pollution Control Equipment APC 260 6. Guidelines for Completion of Air Pollution Episode 7. Air Pollution Episode Action Plan 	<ol style="list-style-type: none"> 1. See No. 1
INDIANA	<ol style="list-style-type: none"> 1. Guidelines - Includes permits, law 	<ol style="list-style-type: none"> 1. Flood Control Act 2. Application for Construction in a Floodway 3. Instructions for Application No. 2 4. NPDES Standard Form C - 4 parts and Instructions 	<ol style="list-style-type: none"> 1. Resolution 2. Appendix III 3. Instruction 4. Regulations APC 2, 3, 4-R, 5, 6, 7, 12-R, 13, 14, 15, 16, 17, 18, 19 (Sec. 4), 20, 22 	
IOWA	<ol style="list-style-type: none"> 1. Application for Mining License 2. Application for Registration of Land to be Surface Mined 3. Bond 4. Code of Iowa 1975 5. Regulation of Surface Coal Mining 	<ol style="list-style-type: none"> 1. Code Chapter 455A 2. Natural Resources Council (580) - Notice of Intended Action 3. Application for Operation Permit - 2 parts 4. Wastewater Construction and Operation Permits 	<ol style="list-style-type: none"> 1. Air Quality Rules and Regulations 	
KANSAS	<ol style="list-style-type: none"> 1. Mined - Land Conservation and Reclamation Act 2. Rules - Mined - Land Conservation and Reclamation 3. Application for Mining Permit 	<ol style="list-style-type: none"> 1. Statutes Pertaining to Water Pollution Control 2. Procedures Relating to Discharge of Wastewaters 3. Water Appropriation Act 4. Application for Permit to Appropriate Water and Instructions 5. KSA 24-126, KSA 82a - 301 to 305 	<ol style="list-style-type: none"> 1. Special Information 2. Air Pollution Emission Control Regulations 	<ol style="list-style-type: none"> 1. See No. 1

STATE	MINING	WATER	AIR	
KENTUCKY	<ol style="list-style-type: none"> 1. Strip Mining - Ch. 350 2. Surface Mine Regulations 3. Laws and Regs on Explosives and Blasting 4. Workmen's Compensation Request 5. License Application - Surface Mine 6. Blasting Applicant 7. Coal Severance Tax Identification Statement 	<ol style="list-style-type: none"> 1. Water Resources Law 2. Application for Construction Permit 3. Application for Permit 4. 401 KAR 4:030; 401 KAR 4:040; 401 KAR 5:005; 401 KAR 5:035; 401 KAR 5:015; 401 KAR 5:045 5. 401 KAR 5:025 - Water Quality Standards 	<ol style="list-style-type: none"> 1. Permit for Air Contaminant Source 2. Permit Application and Instructions 3. Sec. 14 - Control of Fugitive Emissions (Dust) (Only Sec. 14 covers coal strip mines) 	<ol style="list-style-type: none"> 1. Revegetation
MARYLAND	<ol style="list-style-type: none"> 1. Procedure for Permitting New Coal Mining Oper. 2. Regulations - Bituminous Coal Strip Mine 3. Map Symbols 4. Guidelines on Affected Lands 5. Prospecting Permit 6. Application for License for Open Pit Mining of Coal 7. Application for Open Pit Mining Permit 8. Permit Application for Land Reclamation Comm. 9. Detailed Mining and Reclamation Plan 10. Open Pit Mining Equipment 11. Application for Backfilling Bond 12. Application for Revegetation Bond 13. Open Pit Mining Permit 	<ol style="list-style-type: none"> 1. Regulations on Discharge Permits 2. Use NPDES Form C 	<ol style="list-style-type: none"> 1. Regulations Governing Control of Air Pollution - 4 Parts 2. Application for permit to operate fuel burning equipment - 2 Parts 3. Application for Permit to Operate Process Equip. 4. Application for Processing or Manufacturing Equip. 	<ol style="list-style-type: none"> 1. Combined App (Handled by)
MISSOURI	<ol style="list-style-type: none"> 1. Rights and Duties of Miners and Mine Owners 2. Application for Permit to Operate Surface Mine 	<ol style="list-style-type: none"> 1. Clean Water Law (Senate Bill No. 321) 2. Application for Discharge Permit 3. Instructions for Filling Out Application for Discharge Permit 4. Regulation for Submission of Applications for Discharge Permits 5. Regulations for Public Participation 	<ol style="list-style-type: none"> 1. Air Conservation Law 2. Regulation S-II - Approval of Planned Install. 3. Application Instructions 4. Open Burning Restrictions 5. Reg. S-V - Particulate Matter 6. Reg. S-VII - Particulate Matter - Airborne 7. Reg. S-IX - Emission of Odors 8. Reg. S-XIII - Submission of Emission Information 9. Public Availability of Emission Data 	<ol style="list-style-type: none"> 1. First Bienn Commission
MONTANA	<ol style="list-style-type: none"> 1. Law - Strip and Underground Mine Siting Act 2. Rules and regulations for S.U.M.S. Act (No. 1) 3. Strip Mined Coal Conservation Act 4. Rules and regulations for SMCCA (No. 3) 5. Strip and Underground Mine Reclamation Act 6. Rules and regulations for SUMRA (no. 5) 7. Landowner Notification Act 	<ol style="list-style-type: none"> 1. Water Quality Standards 2. Law - Water Pollution - 69-4801 3. Law - Public Water Supply - 69-4901 	<ol style="list-style-type: none"> 1. Permits, Construction and Operation of Equipment 2. Air quality regulations are being changed, ready in Sept. 	<ol style="list-style-type: none"> 1. No land use 2. Revised Guid
NEW MEXICO	<ol style="list-style-type: none"> 1. Law - Coal Strip Mining 2. Regulations of Coal Surface Mining Commission 	<ol style="list-style-type: none"> 1. Law - Water Quality Act 2. Water Quality Control Commission Regulations 	<ol style="list-style-type: none"> 1. Law - Air Quality Control Act 2. Ambient Air Quality Standards 3. 26 Air Quality Regulations 	<ol style="list-style-type: none"> 1. No land use
NORTH DAKOTA	<ol style="list-style-type: none"> 1. Law - Reclamation of Strip-Mined Lands 2. Proposed rules and regulations 	<ol style="list-style-type: none"> 1. Standards of Surface Water Quality 	<ol style="list-style-type: none"> 1. Air Pollution Control Regulations 	<ol style="list-style-type: none"> 1. No state la
OHIO	<ol style="list-style-type: none"> 1. Strip Mine Law 2. Ohio EPA - Application for Permit to Discharge 	<ol style="list-style-type: none"> 1. Regulation EP 31-01 through EP 31-10 - NPDES Permits 2. Ohio EPA - Application for Permit to Discharge 3. Authorization to Discharge under NPDES 4. Application to Install Wastewater Treatment Works 5. Instructions for Appendix A 6. Application for Permit to Install 	<ol style="list-style-type: none"> 1. Regulation EP-30 - Permits to Install 	<ol style="list-style-type: none"> 1. Application
OKLAHOMA	<ol style="list-style-type: none"> 1. Cover letter 2. Mining Lands Reclamation Act 3. Application for Mining Permit 4. Surety Bond 5. Operator's Reclamation Plan 6. Location Map 	<ol style="list-style-type: none"> 1. Water Quality Standards 2. Water Pollution Control Act of 1955 3. Water Resources Board Rules and Regulations 	<ol style="list-style-type: none"> 1. Regulation No. 14 - Permits Required 2. Regulation No. 9 - Control of Fugitive Dust 3. Regulation No. 1 - Prohibition of Open Burning 4. Installation Permit Application Procedures - H2 5. Application for Permit 	<ol style="list-style-type: none"> 1. See Nos. 2
OREGON	<ol style="list-style-type: none"> 1. Law - Mined Land Reclamation Act 2. Surface Mining Permit - 2 Kinds 3. Rules and Regulations - MLRA (No. 1) 4. Reclamation Plan Guideline 	<ol style="list-style-type: none"> 1. Regulations relating to water quality 	<ol style="list-style-type: none"> 1. Administrative rules - Air quality control 	<ol style="list-style-type: none"> 1. State plann Conservatio (Just start

G	WATER	AIR	LAND	EIS; NOTES
lasting Statement	<ol style="list-style-type: none">1. Water Resources Law2. Application for Construction Permit3. Application for Permit4. 401 KAR 4:030; 401 KAR 4:040; 401 KAR 5:005; 401 KAR 5:035; 401 KAR 5:015; 401 KAR 5:0455. 401 KAR 5:025 - Water Quality Standards	<ol style="list-style-type: none">1. Permit for Air Contaminant Source2. Permit Application and Instructions3. Sec. 14 - Control of Fugitive Emissions (Dust) (Only Sec. 14 covers coal strip mines)	<ol style="list-style-type: none">1. Revegetation Plan	<ol style="list-style-type: none">1. Environmental Protection Law
Mining Oper. rip Mine Pit Mining of Coal Permit umation Comm. Plan	<ol style="list-style-type: none">1. Regulations on Discharge Permits2. Use NPDES Form C	<ol style="list-style-type: none">1. Regulations Governing Control of Air Pollution - 4 Parts2. Application for permit to operate fuel burning equipment - 2 Parts3. Application for Permit to Operate Process Equip.4. Application for Processing or Manufacturing Equip.	<ol style="list-style-type: none">1. Combined Application for Grading Permit, etc. (Handled by counties)	<ol style="list-style-type: none">1. See No. 2 under Mining, also 4, 8, 9, 11, 122. Revised Guidelines for Implementation of Maryland Environmental Policy Act.
ne Owners Surface Mine	<ol style="list-style-type: none">1. Clean Water Law (Senate Bill No. 321)2. Application for Discharge Permit3. Instructions for Filling Out Application for Discharge Permit4. Regulation for Submission of Applications for Discharge Permits5. Regulations for Public Participation	<ol style="list-style-type: none">1. Air Conservation Law2. Regulation S-II - Approval of Planned Install.3. Application Instructions4. Open Burning Restrictions5. Reg. S-V - Particulate Matter6. Reg. S-VII - Particulate Matter - Airborne7. Reg. S-IX - Emission of Odors8. Reg. S-XIII - Submission of Emission Information9. Public Availability of Emission Data	<ol style="list-style-type: none">1. First Biennial Report of the Land Reclamation Commission	
iting Act Act (No. 1) o. 3) tion Act o. 5)	<ol style="list-style-type: none">1. Water Quality Standards2. Law - Water Pollution - 69-48013. Law - Public Water Supply - 69-4901	<ol style="list-style-type: none">1. Permits, Construction and Operation of Equipment2. Air quality regulations are being changed, ready in Sept.	<ol style="list-style-type: none">1. No land use legislation yet2. Revised Guidelines pursuant to MEPA	<ol style="list-style-type: none">1. EIS connected with permit to mine, is reviewed by Dept. of State Lands2. Draft copies of bills (severance tax, etc.) passed by legislation3. Environmental Policy Act
Commission	<ol style="list-style-type: none">1. Law - Water Quality Act2. Water Quality Control Commission Regulations	<ol style="list-style-type: none">1. Law - Air Quality Control Act2. Ambient Air Quality Standards3. 26 Air Quality Regulations	<ol style="list-style-type: none">1. No land use legislation	<ol style="list-style-type: none">1. Reclamation plan is part of permit process. Environmental impact public hearing is held.
unds	<ol style="list-style-type: none">1. Standards of Surface Water Quality	<ol style="list-style-type: none">1. Air Pollution Control Regulations	<ol style="list-style-type: none">1. No state land use planning	<ol style="list-style-type: none">1. EIS not required
to Discharge	<ol style="list-style-type: none">1. Regulation EP 31-01 through EP 31-10 - NPDES Permits2. Ohio EPA - Application for Permit to Discharge3. Authorization to Discharge under NPDES4. Application to Install Wastewater Treatment Works5. Instructions for Appendix A6. Application for Permit to Install	<ol style="list-style-type: none">1. Regulation EP-30 - Permits to Install	<ol style="list-style-type: none">1. Application - Division of Reclamation	
	<ol style="list-style-type: none">1. Water Quality Standards2. Water Pollution Control Act of 19553. Water Resources Board Rules and Regulations	<ol style="list-style-type: none">1. Regulation No. 14 - Permits Required2. Regulation No. 9 - Control of Fugitive Dust3. Regulation No. 1 - Prohibition of Open Burning4. Installation Permit Application Procedures - H25. Application for Permit	<ol style="list-style-type: none">1. See Nos. 2 and 5 under Mining	
	<ol style="list-style-type: none">1. Regulations relating to water quality	<ol style="list-style-type: none">1. Administrative rules - Air quality control	<ol style="list-style-type: none">1. State planning goals and guidelines - Land Conservation and Development Commission. (Just starting on land use at state level)	<ol style="list-style-type: none">1. Oregon Environmental Laws

STATE	MINING	WATER	AIR	
PENNSYLVANIA	<ol style="list-style-type: none"> 1. Surface Mining Conservation and Reclamation Act 2. Guidelines - Negotiable Securities 3. Surety Bond 4. Collateral Bond 5. Application - Surface Mining Operator's License 6. Application for Permit 7. Requirements Accompanying Permits 8. Supplementals A, E, F 	<ol style="list-style-type: none"> 1. Clean Streams Law 2. Application for Permit - discharge of Wastes 3. Method Used to Determine Run-Off (4 p.) 4. Data for Settling Basin Capacity 5. Public and Private Water Supply Information (2 p.) 6. Supplementals B (2 p.), C, D 		
TENNESSEE	<ol style="list-style-type: none"> 1. Surface Mining Law 2. Regulations Pertaining to Surface Mining 3. Permit to Engage in Surface Mining 4. Application for License to Operate a Mine 	<ol style="list-style-type: none"> 1. Water Quality Control Act of 1971 2. General Regulations 	<ol style="list-style-type: none"> 1. Air Pollution Control Regulations and Amendments 2. General Information - Coal Preparation 3. Permit Application - APC 20 	<ol style="list-style-type: none"> 1. Forest Fire 2. Open Burning 3. Notice - La
TEXAS	<ol style="list-style-type: none"> 1. Law - Surface Mining and Reclamation Act (not formally printed, but is law) 2. Report - Surface Mining Operations Study Comm. 	<ol style="list-style-type: none"> 1. Water Quality Act 2. Ready - Reference on Water Pollution Control Leg. 3. Water Quality Board regulates strip mining under Solid Waste Disposal Act, until new law takes effect 4. Water Quality Standards 5. Rules of the Texas Water Quality Board 	<ol style="list-style-type: none"> 1. Regulation I - Control of Air Pollution from smoke 2. Control of Air Pollution by Permits 	<ol style="list-style-type: none"> 1. Solid Waste 2. Subsurface
UTAH	<ol style="list-style-type: none"> 1. Utah Mine Reclamation Act 2. Regulations - Proposed draft 	<ol style="list-style-type: none"> 1. Water Pollution Control Act 2. Waste Disposal Regulations - 5 sections 3. Board of Health - Rules regulations, standards 4. Permits needed - in letter form 	<ol style="list-style-type: none"> 1. Air Conservation Act 2. Air Conservation Regulations 3. Permits needed - in letter form 	<ol style="list-style-type: none"> 1. Solid Waste
VIRGINIA	<ol style="list-style-type: none"> 1. Coal Surface Mining Regulations and Law 2. Plan for Reclamation and Method of Operation 3. Mining Laws 4. Application for License to Operate a Coal Mine 5. General Order #1 - General Rules and Regs 	<ol style="list-style-type: none"> 1. Water Control Law and Amendments 2. Short Form C - Specific Instructions - Mining 3. Short Form C and Addendum 4. Water Control Board Organization Chart 	<ol style="list-style-type: none"> 1. Air Pollution Control Law 2. Clean Air Act 3. Regulations - Control and Abatement of Air Pollution and Supp. 4. Registration - Permit Form 5. Instructions for Completion of Registration Form 	<ol style="list-style-type: none"> 1. See No. 2
WASHINGTON	<ol style="list-style-type: none"> 1. Surface mines Land Reclamation 2. Rules and Regulations - Lands disturbed by surface mining 3. Guidelines for applicants for surface mining permit 4. Operating Permit - Surface Mining 5. County or Municipality Recommendations - Surface Mining 6. Surface Mined Land Reclamation Act 	<ol style="list-style-type: none"> 1. Water Quality Standards 2. Water Pollution Control 3. Compliance with Federal Water Pollution Control Act 4. NPDES Permit System 5. Pollution Disclosure 	<ol style="list-style-type: none"> 1. Washington Clean Air Act 	<ol style="list-style-type: none"> 1. Solid Waste
WEST VIRGINIA	<ol style="list-style-type: none"> 1. Procedure for Obtaining a Surface Mining Permit 2. Surface Mining and Reclamation Act 3. Surface Mining Regulations 4. Procedure to Obtain a Prospecting Permit 5. Application for Prospecting 6. Procedure to Obtain a Surface Mining Permit 7. Procedure to Obtain an SMA File Number 8. Application for Surface Mining 9. Mining and Reclamation Plan 10. Surface Mine Inspection Report 11. Report of Non-Compliance 12. Inspection of Non-Compliance 13. Application Form for Renewal 14. Forfeiture Report 15. Surface Mining Permit 	<ol style="list-style-type: none"> 1. Drainage Handbook for Surface Mining 2. Procedure for Certification of Drainage Systems 3. Certification of Drainage System 4. Water Pollution Control Act 5. Natural Streams Preservation Act 6. Water Quality Regulations 7. Dam Control Act 8. Application for Mine Drainage Water Pollution Control Permit 9. Application for Mine Drainage 10. Application - Dam or Reservoirs 11. Public Water Supply Regulations 12. Water System Design Information and Data Sheet 	<ol style="list-style-type: none"> 1. Air Pollution Control Law 2. Definitions and Abbreviations 3. Example of Legal Advertisement 4. Application for Permit - Stationary Structures 5. Section II List Form 6. Affected Source Sheet 7. Air Pollution Control Device Sheet 8. Emissions Points Data Sheet 9. Registration of Proposed Coal Refuse Disposal 10. Registration Form and Instructions 11. Administrative Regulations - Series I - XIII (Especially I, IV, XIII) 	<ol style="list-style-type: none"> 1. See No. 1 2. Inspector's 3. Final Plan 4. Final Insp 5. Special Use 6. Coal Refuse
WYOMING	<ol style="list-style-type: none"> 1. Wyoming Environmental Quality Act 2. Publication and Notification Requirements 3. Guidelines - Environmental Quality Permits and How to Apply for Them 4. Memo - WEQA - Form and Execution Requirement of Bonds 5. Permit to mine 6. License to mine 7. Surface Landowner's Consent 8. Mining permit district representatives 	<ol style="list-style-type: none"> 1. Water Quality Rules and Regulations - 5 parts 	<ol style="list-style-type: none"> 1. Air Quality Standards and Regulations 	<ol style="list-style-type: none"> 1. Land Qualit

3	WATER	AIR	LAND	EIS; NOTES
clamation Act tor's License	<ol style="list-style-type: none">1. Clean Streams Law2. Application for Permit - Discharge of Wastes3. Method Used to Determine Run-Off (4 p.)4. Data for Settling Basin Capacity5. Public and Private Water Supply Information (2 p.)6. Supplementals B (2 p.), C, D			
Mining a Mine	<ol style="list-style-type: none">1. Water Quality Control Act of 19712. General Regulations	<ol style="list-style-type: none">1. Air Pollution Control Regulations and Amendments2. General Information - Coal Preparation3. Permit Application - APC 20	<ol style="list-style-type: none">1. Forest Fire Laws2. Open Burning Permit3. Notice - Law Regulating Use of Open Air Fires	
on Act Study Comm.	<ol style="list-style-type: none">1. Water Quality Act2. Ready - Reference on Water Pollution Control Leg.3. Water Quality Board regulates strip mining under Solid Waste Disposal Act, until new law takes effect4. Water Quality Standards5. Rules of the Texas Water Quality Board	<ol style="list-style-type: none">1. Regulation I - Control of Air Pollution from smoke2. Control of Air Pollution by Permits	<ol style="list-style-type: none">1. Solid Waste Disposal Act and Amendments2. Subsurface Waste Disposal in Texas	<ol style="list-style-type: none">1. Policy for the Environment
	<ol style="list-style-type: none">1. Water Pollution Control Act2. Waste Disposal Regulations - 5 sections3. Board of Health - Rules regulations, standards4. Permits needed - in letter form	<ol style="list-style-type: none">1. Air Conservation Act2. Air Conservation Regulations3. Permits needed - in letter form	<ol style="list-style-type: none">1. Solid Waste Disposal Regulations	<ol style="list-style-type: none">1. EIS is necessary, Information in regulations for mining.2. Utah prefers that strip mine operators contact Dept. of Environmental Health before moving any earth, so regulations can be explained and mistakes avoided.
d Law Operation a Coal Mine nd Regs	<ol style="list-style-type: none">1. Water Control Law and Amendments2. Short Form C - Specific Instructions - Mining3. Short Form C and Addendum4. Water Control Board Organization Chart	<ol style="list-style-type: none">1. Air Pollution Control Law2. Clean Air Act3. Regulations - Control and Abatement of Air Pollution and Supp.4. Registration - Permit Form5. Instructions for Completion of Registration Form	<ol style="list-style-type: none">1. See No. 2 under Mining	<ol style="list-style-type: none">1. Procedures Manual for Environmental Impact Statements in the Commonwealth of Virginia
urbed by surface mining ace mining permit ions - Surface Mining	<ol style="list-style-type: none">1. Water Quality Standards2. Water Pollution Control3. Compliance with Federal Water Pollution Control Act4. NPDES Permit System5. Pollution Disclosure	<ol style="list-style-type: none">1. Washington Clean Air Act	<ol style="list-style-type: none">1. Solid Waste Management	<ol style="list-style-type: none">1. State Environmental Policy2. Environmental Coordination Procedures Act Master Application Procedures3. Master Application4. Permit Problems ?5. SEPA - Second Draft
Mining Permit t Permit ing Permit umber	<ol style="list-style-type: none">1. Drainage Handbook for Surface Mining2. Procedure for Certification of Drainage Systems3. Certification of Drainage System4. Water Pollution Control Act5. Natural Streams Preservation Act6. Water Quality Regulations7. Dam Control Act8. Application for Mine Drainage Water Pollution Control Permit9. Application for Mine Drainage10. Application - Dam or Reservoirs11. Public Water Supply Regulations12. Water System Design Information and Data Sheet	<ol style="list-style-type: none">1. Air Pollution Control Law2. Definitions and Abbreviations3. Example of Legal Advertisement4. Application for Permit - Stationary Structures5. Section II List Form6. Affected Source Sheet7. Air Pollution Control Device Sheet8. Emissions Points Data Sheet9. Registration of Proposed Coal Refuse Disposal10. Registration Form and Instructions11. Administrative Regulations - Series I - XIII (Especially I, IV, XIII)	<ol style="list-style-type: none">1. See No. 1 under Water2. Inspector's Grading Release Report3. Final Planting Plan Report4. Final Inspection Report5. Special Use Form6. Coal Refuse Disposal Control Act	<ol style="list-style-type: none">1. Sewer should be first, because of 90 day time lag2. Small Sewage and Excreta Disposal System Regulations3. Permit Procedure and Design Requirements for Small Sewage (2)4. Sewage Collection Systems Forms5. Application Instructions6. Application for Permit7. Sewage System Information8. Municipal Package Sewage Treatment9. Memo - Sludge Holding Tanks10. Memo - Air Lift Sludge Return11. Sewage System Information and Design12. Certificate of Supervision of Installation of Sewage Plants
rements Permits and How to equirement of Bonds ives	<ol style="list-style-type: none">1. Water Quality Rules and Regulations - 5 parts	<ol style="list-style-type: none">1. Air Quality Standards and Regulations	<ol style="list-style-type: none">1. Land Quality Rules and Regulations	<ol style="list-style-type: none">1. New laws from 1975

TABLE III-4 GROUPING OF STATES BY COAL PROVINCE

STATE	REGION WITHIN PROVINCE ¹				
	Pacific Coast	Rocky Mtn.	No. Grt. Plains	Interior	Eastern
Alabama	X	San Juan R.		Western	Appalachian
Alaska					
Arkansas	X	San Juan R.		Western	Appalachian
Arizona					
California					
Colorado		Green R. Uinta San Juan R. Raton Mesa			
Illinois				Eastern	
Indiana				Eastern	
Iowa				Western	
Kansas				Western	
Kentucky				Eastern	Appalachian
Maryland				Western	Appalachian
Missouri					
Montana		Bighorn B.	Ft. Union No. Central Powder R.		
New Mexico		San Juan R. Raton Mesa			
No. Dakota			Ft. Union		
Ohio					Appalachian
Oklahoma				Western	
Oregon	X				Appalachian
Pennsylvania					
Tennessee					Appalachian
Texas ¹				S. Western	
Utah		Uinta			
Virginia					Appalachian
Washington	X				
West Virginia					Appalachian
Wyoming		Bighorn B.	Powder R.		

¹Texas region of Gulf Province not shown on chart.

- a) 30 CFR 211 (see Appendix C)
- b) 43 CFR 23
- c) 23 CFR 177 (BIA Regulations)
- d) USGS/BLM Proposed Rules, "Coal Mining Operating Regulations", Federal Register, Vol. 40, No. 173, pp. 41122-41138 (September 5, 1975)

All of the "requirements" determined from review of the state and federal documents are referenced to the paragraph where implied or stated, and exceptions or explanations are footnoted. The format is shown in the next section.

8.4.3 Results of Investigations

To minimize footnoting of exceptions, the most comprehensive listing of requirements was used as a "yardstick" for legal requirements. At the time of this review, the choice was between USGS/BLM "Proposed Rules" and Montana state requirements. The former were chosen.

Summary of State Reclamation Requirements - The states have a very "mixed bag" of requirements for reclamation, as shown on Table III-5. A number of states do not specifically require reclamation of exploration disturbance areas. Arizona has no reclamation law (all coal deposits are associated with federal land). This table is a summary of the detailed requirements found in subsequent tables and Appendix C.

Significant differences are evident among states within the same region of a coal province, e.g., Appalachian, where Alabama, Kentucky, and West Virginia have dissimilar regulations. Examples are in exploration reclamation requirements and time limitation subsequent to mining to complete reclamation.

Formats for Plans and Reports - All of the federal and state mining requirements have been compared in a generic format that could be developed into the following plans and reports

- a) Exploration Plans (Table III-6)
- b) Exploration Operating Report (Table III-7)
- c) Mining Plans (Table III-8)
- d) Mining Plan Maps (Table III-9)
- e) Annual Operating Report (Table III-10)

TABLE III-5

STATE RECLAMATION REGULATIONS

SHEET 1 OF 2

STATE	PERMITTING AGENCY	RECLAMATION BOND		RECLAMATION OF EXPLORATION DISTURBANCE	OVERBURDEN CHEMICAL ANALYSIS	TOPSOIL		HIGHWALL LIMITATION (FEET)	GRADING			VEGETATION ESTABLISHMENT		COVERING OF ACID FORMING OR TOXIC MATERIALS	COMPLETION OF RECLAMATION REQUIRED
		AMOUNT	RELEASE TIME			STOCKPILING	EROSION CONTROL		CONTOUR %	TIME LIMITATION (MONTHS)	TOPSOIL DEPTH (FEET)	SEEDING TIME AFTER GRADING (DAYS)	SUCCESS EVALUATION % COVER		
ALABAMA	DEPARTMENT OF INDUSTRIAL RELATIONS	\$1200 PER ACRE PLUS \$5 ACRESAGE FEE, TOTAL \$1205 PER ACRE, \$10,000 MINIMUM.	3 YEARS						REDUCE PEAKS AND RIDGES TO WIDTH OF 15 FEET AT TOP			ESTABLISHED ONE YEAR AFTER SEEDING/PLANTING	400 TO 450 TREE SEEDLINGS PER ACRE	COVER WITH AT LEAST TWO FEET OF OVERBURDEN OR PERMANENT WATER IMPOUNDMENT	3 YEARS
ALASKA															
ARKANSAS	ARKANSAS POLLUTION CONTROL COMMISSION	\$500/ACRE OF PORTION TO BE AFFECTED	10 YEARS		REQUIRED WHEN SITE SLOPE IS IN CONDITION FOR VEGETATION INCLUDE TEST FOR LIME, FERTILIZER AND MICRONUTRIENTS				GRADE PEAKS AND RIDGES TO ROLLING TOPOGRAPHY, NO SLOPE IS TO BE GREATER THAN 1 VERTICAL TO 3 HORIZONTAL		MAY BE REQUIRED BASED ON RESULTS OF SOIL TEST			COVER ACID FORMING MATERIALS TO DEPTH NOT LESS THAN 3 FEET OF EARTH UNLESS COVERED BY PERMANENT WATER IMPOUNDMENT	2 YEARS
ARIZONA	COAL MINES ON INDIAN LANDS, THEREFORE, SUBJECT TO U.S.G.S. REGULATIONS														
CALIFORNIA	DIVISION OF MINES AND GEOLOGY	DETERMINED BY EACH LEAD AGENCY				INFORMATION TO BE DESCRIBED BY APPLICANT IN RECLAMATION PLAN									
COLORADO	LAND RECLAMATION BOARD	\$50 PLUS \$15 FOR EACH ACRE TO BE AFFECTED	10 YEARS						GRADE RIDGES AND PEAKS TO WIDTH OF 15 FEET AT TOP, COMMENSURATE WITH PROPOSED LAND USE	WITHIN 3 YEARS	2 FEET OVER ACID FORMING OR TOXIC MATERIALS		TREE SPACING 10 BY 10 FEET	COVER TO DEPTH WHICH WILL PROTECT DRAINAGE SYSTEM FROM POLLUTION, IF COVERED WITH WATER MUST BE NO LESS THAN 4 FEET.	WITHIN 3 YEARS
ILLINOIS	DEPARTMENT OF MINES AND MINERALS	\$600 TO \$1,000 PER ACRE	WHEN DEPT. HAS DETERMINED RECLAMATION IS COMPLETED			AT LEAST 18 INCHES TO BE SEGREGATED AND REPLACED			15 TO 30% DEPENDING ON PROPOSED USE OR TO APPROXIMATE ORIGINAL CONTOUR	11 MONTHS	18 INCHES IF ROW CROPS PROPOSED			NOT LESS THAN 4 FEET OF WATER OR COVER WITH MATERIAL CAPABLE OF SUPPORTING PLANT LIFE	WITHIN 3 YEARS
INDIANA	DEPARTMENT OF NATURAL RESOURCES	\$5,000 OR \$600 X NUMBER OF ACRES TO BE AFFECTED, WHICHEVER IS GREATER	WHEN RECLAMATION COMPLETED BY OPERATOR AND APPROVED BY COMMISSION NOT TO EXCEED 15 YEARS		REQUIRED FOR APPROVAL OF REVEGETATION PLAN	STOCK PILING NOT REQUIRED BUT IS COMMON PRACTICE BY HOST OPERATORS		CUT DOWN TO STABLE ROCK FORMATION IF FINAL CUT TO BE FILLED WITH WATER	MAXIMUM SLOPE STEEPNESS: 8% ROW CROP; 25% PASTURE AND HAY; 33 1/3% FOREST OR RANGELAND.	NO LATER THAN 1 YEAR AFTER DEPOSIT OF THE OVERBURDEN	18 INCHES	AS SOON AS PRACTICABLE	COVER ACCEPTABLE IN COMMERCIAL AGRICULTURAL AND FORESTRY OPERATIONS IN INDIANA	COVER TO DEPTH OF 2 FEET WITH EARTH OR NON-TOXIC OVERBURDEN OR BY IMPOUNDED WATER.	
IOWA	DEPARTMENT OF MINES AND MINERALS	EQUAL TO ESTIMATED COST OF REHABILITATING EACH SITE	WHEN RECLAMATION HAS BEEN PERFORMED TO DEPARTMENTS SATISFACTION			MUST BE STOCKPILED IN MANNER PRESCRIBED BY DEPARTMENT; MUST BE CAPABLE OF SUSTAINING VEGETATION	COVER WITH QUICK-GROWING PLANT SPECIES		MAXIMUM OF 1 FOOT VERTICAL FOR EACH 4 FEET HORIZONTAL UNLESS ORIGINAL GREATER THAN 4:1 SPOIL BANK TO BE GRADED TO BLEND WITH SURROUNDING TERRAIN		DEPTH NOT SPECIFIED, BUT MAY BE REQUIRED TO RESERVE A, D, AND C HORIZONS		EQUAL IN EXTENT OF COVER OF NATURAL VEGETATION - INCLUDES CROP	COVER WITH AT LEAST 2 FEET OF EARTH OR SPOIL MATERIAL IF ACID-FORMING MATERIALS ARE NOT COVERED BY IMPOUNDED WATER	WITHIN 12 MONTHS
KANSAS	MINED LAND CONSERVATION AND RECLAMATION BOARD	NOT LESS THAN \$300 NOR MORE THAN \$1,000 PER ACRE MINIMUM OF \$3,000	WHEN BOARD DETERMINES A SATISFACTORY STAND HAS BEEN ESTABLISHED						GRADE TO TOPOGRAPHY IN ACCORDANCE WITH PLANNED USE; NOT TO EXCEED 25%	TO BE COMPLETED NOT MORE THAN 180 DAYS AFTER FINAL PLACING OF THE SPOIL RIDGES	COVER WITH MATERIALS ADEQUATE TO SUPPORT PLANT GROWTH COMPARABLE WITH ORIGINAL	MUST BE ACCOMPLISHED IN ACCORDANCE WITH APPROVED REVEGETATION PLAN FILED WITH BOARD		COVER WITH MATERIAL TO AT LEAST 2 FEET ABOVE SEAM BEING MINED, OR BY A PERMANENT WATER IMPOUNDMENT	WITHIN 12 MONTHS AFTER PERMIT HAS EXPIRED
KENTUCKY	DIVISION OF RECLAMATION	NOT LESS THAN \$500 NOR MORE THAN \$1,500 FOR EACH ACRE AFFECTED, MINIMUM BOND OF \$5,000	MUST ATTAIN STABLE WATER pH OF 5.5 ON 80% OF AREA		TO DETERMINE LIME AND FERTILIZER REQUIREMENTS, MINIMUM OF 1 COMPOSITE SAMPLE PER 10 ACRES DISTURBED SURFACE		MUST BE REDUCED OR BACK-FILLED EXCEPT WHERE COMPOSED OF SOLID ROCK NOT TO EXCEED 25 FEET FROM PERMANENT POOL ELEVATION	CONFORM TO ORIGINAL CONTOUR MAXIMUM SLOPE OF 12% AROUND PERMANENT IMPOUNDMENTS	FOLLOW HIGHWALL MINING BY NOT MORE THAN 15 DAYS; LIMITATION OF 1,000 FEET OF UNGRADED AREA BEHIND HIGHWALL			WITHIN 15 DAYS EXCEPT DURING PERIOD OF OCTOBER 15 THROUGH FEBRUARY 15, WESTERN KENTUCKY WITHIN 45 DAYS	70% GROUND COVER FOR GRASSES AND LEGUMES MINIMUM OF 600 TREES PER ACRE	BURIED UNDER AT LEAST 4 FEET OF CLEAN OVERBURDEN	MUST BE SATISFACTORY BY END OF SECOND GROWING SEASON, IF NOT, SUBJECT TO BOND FORFEITURE
MARYLAND	BUREAU OF MINES	\$400/ACRE FOR AREAS AFFECTED AND \$50 TO \$125/ACRE FOR REVEGETATION		BACKFILLED WITHIN 30 DAYS AND REVEGETATED AS SOON AS POSSIBLE	pH VALUE OF AREA TO BE PLANTED	INCLUDES TOPSOIL, SUBSOIL AND OTHER MATERIAL THAT WILL SUPPORT VEGETATION			APPROXIMATE ORIGINAL CONTOUR WHERE ORIGINAL ANGLE LESS THAN 12 DEGREES	NOT MORE THAN 2 SPOIL RIDGES BEHIND PIT BEING WORKED, 60 DAYS	DEPTH NOT INDICATED	STATE FORESTER MAKES RECOMMENDATIONS WHICH MUST BE STRICTLY ADHERED TO		SEPARATE FROM REST OF SPOIL AND SPREAD ALONG BOTTOM OF PIT AND COVER WITH MINIMUM OF 2 FEET OF CLEAN OVERBURDEN	
MISSOURI	LAND RECLAMATION COMMISSION	NOT LESS THAN \$300 NOR MORE THAN \$700 PER ACRE MINIMUM OF \$2000	WHEN RECLAIMED, APPROVED AND RELEASED BY COMMISSION						ROLLING TOPOGRAPHY ACCORDING TO PLANNED USE; DO NOT NEED TO BE REDUCED TO LESS THAN ORIGINAL GRADE	TO BE COMPLETED NO MORE THAN 180 DAYS AFTER FINAL PLACING OF SPOIL RIDGES		COMMENCE AS SOON AS POSSIBLE AFTER BEGINNING OF STRIP MINING; WITHIN 24 MONTHS	CONSISTENT WITH PLANNED USE	COVER WITH NOT LESS THAN 4 FEET OF EARTH THAT WILL SUPPORT PLANT LIFE OR WITH PERMANENT WATER IMPOUNDMENT	MUST SUPPORT VEGETATION BY SECOND GROWING SEASON
MONTANA	DEPARTMENT OF STATE LANDS	NOT LESS THAN \$200 NOR MORE THAN \$2,500 PER ACRE WITH \$2,000 MINIMUM	PARTIAL RELEASE UPON APPROVAL OF DEPARTMENT; REMAINING BOND WILL NOT BE RELEASED PRIOR TO 5 YEARS FROM INITIAL PLANTING	AS SOON AS POSSIBLE	SOIL AND OVERBURDEN ANALYSES	REMOVAL AND STOCKPILING TO PRECEDE EACH STEP OF MINING OPERATION, TOPSOIL REMOVAL REQUIRED FOR PROSPECTING ACTIVITIES	MAY REQUIRE IMMEDIATE PLANTING OF ANNUAL AND/OR PERENNIAL CROP	NO GREATER THAN 20 DEGREES FROM HORIZONTAL	APPROXIMATE ORIGINAL CONTOUR-NO FINAL GRADED SLOPES TO EXCEED 5 HORIZONTAL TO 1 VERTICAL (5:1)	WITHIN 90 DAYS AFTER DEPARTMENT HAS DETERMINED THE OPERATION IS COMPLETE	APPROXIMATE ORIGINAL	FIRST APPROPRIATE SEASON FOLLOWING COMPLETION OF GRADING AND TOPSOILING	PERMANENT DIVERSE VEGETATION COVER	MAY REQUIRE BURIAL WITH UP TO 8 FEET OF MATERIAL	

TABLE III-5

STATE RECLAMATION REGULATIONS

SHEET 2 OF 2

STATE	PERMITTING AGENCY	RECLAMATION BOND		RECLAMATION OF EXPLORATION DISTURBANCE	OVERBURDEN CHEMICAL ANALYSIS	TOPSOIL		HIGHWALL LIMITATION (FEET)	GRADING			VEGETATION ESTABLISHMENT		COVERING OF ACID FORMING OR TOXIC MATERIALS	COMPLETION OF RECLAMATION REQUIRED
		AMOUNT	RELEASE TIME			STOCKPILING	EROSION CONTROL		CONTOUR %	TIME LIMITATION (MONTHS)	TOPSOIL DEPTH (FEET)	SEEDING TIME AFTER GRADING (DAYS)	SUCCESS EVALUATION % COVER		
NEW MEXICO	COAL SURFACE MINING COMMISSION	COMMISSION MAY REQUIRE OPERATOR TO FILE BOND IN AN AMOUNT SUFFICIENT TO ENSURE COMPLIANCE	UPON SATISFACTION OF COMMISSION		SOIL ANALYSES				GRADING TO PRODUCE A GENTLY UNDULATING TOPOGRAPHY OR CONSISTENT WITH PROPOSED LAND USE	SHALL BE COMPLETED WITHIN A REASONABLE AND PRESCRIBED TIME LIMIT		SHALL BE COMPLETED WITHIN A REASONABLE AND PRESCRIBED TIME LIMIT	DEPENDENT UPON PROPOSED LAND USE	DEPTH DETERMINED IN APPROVED MINING PLAN	
NORTH DAKOTA	PUBLIC SERVICE COMMISSION	\$1,500 FOR EACH ACRE AFFECTED	5 YEARS AFTER TERMINATION OF PERMIT; MAY BE EXTENDED; PARTIAL RELEASE MAY BE EFFECTED UPON COMPLETION OF CERTAIN TASKS		PH, SODIUM ADSORPTION RATIO ELECTRICAL CONDUCTIVITY TEXTURE (BY FEEL)			BACK SLOPED TO ANGLE NOT TO EXCEED 35% FROM HORIZONTAL	APPROXIMATE ORIGINAL CONTOUR UNLESS SPECIFIED BY COMMISSION		2 FEET				PRIOR TO 3 YEARS AFTER TERMINATION OF PERMIT TERM
OHIO	DIVISION OF RECLAMATION	SUFFICIENT TO COVER COST OF RECLAMATION, BUT NOT LESS THAN \$5,000	DETERMINED BY DIVISION AFTER INSPECTION		PH BY STRATA	REQUIRED		NOT GREATER THAN 35 DEGREES	CONTOUR OF TERRACE NOT GREATER THAN 15 DEGREES NEAR WATER BODIES	WITHIN 3 MONTHS AFTER REMOVAL OF OVERBURDEN; TO BE COMPLETED WITHIN 12 MONTHS	MUST NOT CONTAIN ROCKS OR OTHER MATERIALS OF ANY SIZE WHICH WOULD IMPEDE ANY INTENDED FUTURE USE	NEXT APPROPRIATE SEASON FOLLOWING COMPLETION OF BACKFILL, GRADING, AND RESOLLING OPERATIONS	ACCORDING TO RECLAMATION PLAN	BURY UNDER ADEQUATE FILL	
OKLAHOMA	DEPARTMENT OF MINES AND MINING	NOT LESS THAN \$350 NOR MORE THAN \$650 FOR EACH ACRE AFFECTED; MINIMUM OF \$5,000	WHEN APPROVED BY DEPARTMENT; DEPARTMENT MAY RELEASE UP TO 80% FOR EACH ACRE GRADED						GRADE PEAKS AND RIDGES OF OVERBURDEN TO A ROLLING TOPOGRAPHY NOT LESS THAN ORIGINAL GRADE; SLOPE OF RIDGE FROM BOXCUT NEED NOT BE REDUCED TO LESS THAN 25 DEGREES FROM HORIZONTAL	WITHIN 1 YEAR AFTER MINING OF AFFECTED AREA HAS BEEN COMPLETED		FIRST APPROPRIATE TIME FOLLOWING COMPLETION OF GRADING	MAY BE PRESCRIBED BY DEPARTMENT	NOT LESS THAN 3 FEET WITH EARTH THAT WILL SUPPORT PLANT LIFE OR WITH A PERMANENT WATER IMPOUNDMENT	
OREGON	DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES	NOT TO EXCEED \$300/ACRE TO BE SURFACE MINED	AFTER INSPECTION AND APPROVAL OF DEPARTMENT					ENSURE SAFETY OF PUBLIC	PREPARE PERMIT AREA IN BEST PRACTICAL MANNER FOR PLANNED SUBSEQUENT BENEFICIAL USE	AS PROMPTLY AS POSSIBLE			VEGETATION SURVIVAL OF 75%, UNIFORMLY DISTRIBUTED, FOR ONE GROWING SEASON		WITHIN NOT MORE THAN 3 YEARS AFTER COMPLETION OF WORK
PENNSYLVANIA	DEPARTMENT OF ENVIRONMENTAL RESOURCES	AMOUNT SUFFICIENT TO ENSURE COMPLETION OF RECLAMATION PLAN	LIABILITY UNDER BOND SHALL BE FOR DURATION OF OPERATION AND FOR 5 YEARS THEREAFTER		REQUIRED	WHEN CONDITIONS PERMIT; MUST EXPLAIN IN RECLAMATION PLAN IF CONDITIONS DO NOT PERMIT CONSERVATION AND RESTORATION OF TOPSOIL OR SUBSOIL			TERRACED OR SLOPED TO AN ANGLE NOT TO EXCEED ORIGINAL CONTOUR	WITHIN 6 MONTHS AFTER COMPLETION OF MINING		WITHIN ONE YEAR AFTER BACKFILLING; ALTERNATE PROCEDURES REQUIRED TO CONTROL EROSION AND SILTATION IF REVEGETATION NOT POSSIBLE		SUITABLE PLAN MUST BE APPROVED BY DEPARTMENT	
TENNESSEE	DEPARTMENT OF CONSERVATION	NOT LESS THAN \$600/ACRE TO BE AFFECTED	APPROVAL OF COMMISSIONER	NOT REQUIRED IF MINING PERMIT APPROVED WITHIN 6 MONTHS FROM DATE OF PROSPECTING PERMIT; OTHERWISE MUST BE COMPLETED WITHIN 1 YEAR		REQUIRED		ELIMINATE HIGHWALLS MAXIMUM OF 20 FEET	REGRADE STEEP SLOPES TO APPROXIMATE ORIGINAL CONTOUR OR ROLLING TOPOGRAPHY; MUST BLEND WITH ADJACENT LANDS	WITHIN 6 MONTHS FOLLOWING INITIATION OF SOIL DISTURBANCE	MUST BE SUITABLE FOR SUPPORTING VEGETATION	PROPER SEASON FOLLOWING GRADING	6 x 7 FOOT SPACINGS FOR TREES; SURVIVAL 600 ACRE LEGUMES AND PERENNIAL GRASSES REQUIRE 80% GROUND COVER	MUST BE SEGREGATED WITHIN THE PIT; COVERED WITH SOIL TO A COMPACTED DEPTH OF AT LEAST 4 FEET OR WITH A PERMANENT WATER IMPOUNDMENT	
TEXAS	RAILROAD COMMISSION OF TEXAS	DETERMINED BY COMMISSION; TO BE OF SUFFICIENT AMOUNT TO ENSURE RECLAMATION PLAN COMPLETED	LIABILITY SHALL BE FOR THE DURATION OF OPERATIONS AND RECLAMATION AND FOR A PERIOD COINCIDENT WITH THE OPERATORS RESPONSIBILITY			REQUIRED OR BEST AVAILABLE SUBSOIL	COVER WITH QUICK GROWING PLANTS		APPROXIMATE ORIGINAL CONTOUR	PROCEED AS CONTEMPORANEOUSLY AS PRACTICABLE	REPLACE TOPSOIL OR BEST AVAILABLE SUBSOIL		DIVERSE VEGETATIVE COVER NATIVE TO THE AFFECTED LAND WHEN VEGETATION EXISTED PRIOR TO MINING	MUST BE TREATED OR DISPOSED IN A MANNER DESIGNED TO PREVENT CONTAMINATION OF GROUND OR SURFACE WATERS	5 YEARS
UTAH	DIVISION OF OIL, GAS, AND MINING	DETERMINED BY DIVISION	LIABILITY SHALL CONTINUE UNTIL RELEASED BY DIVISION		PH	REQUIRED UNLESS NO SUCH MATERIAL EXISTS; MUST PROVIDE EXPLANATION			TO BE DEVELOPED AS PART OF RECLAMATION PLAN			NOT REQUIRED IF THERE IS NO ORIGINAL COVER; MUST PROVIDE ALTERNATE PROCEDURE TO MINIMIZE OR CONTROL EROSION OR SILTATION. TIME TABLE REQUIRED IN RECLAMATION PLAN		MUST PROVIDE EXPLANATION OF HOW SUCH MATERIALS WILL BE SEGREGATED AND DISPOSED OF IN RECLAMATION PLAN	RETURN LAND CONCURRENTLY WITH MINING OR WITHIN A REASONABLE TIME THEREAFTER TO A STABLE ECOLOGICAL CONDITION COMPATIBLE WITH PAST, PRESENT AND PROBABLE FUTURE LAND USES
VIRGINIA	DIVISION OF MINES	NO LESS THAN \$200 NOR MORE THAN \$1,000 PER ACRE TO BE MINED MINIMUM BOND OF \$2,500	APPROVAL OF DIRECTOR IF RECLAMATION HAS BEEN COMPLETED ON WORK OF PREVIOUS 12 MONTHS	REQUIRED UNLESS AFFECTED AREA IS INCORPORATED INTO RECLAMATION PLAN AS PART OF APPLICATION FOR SURFACE MINING PERMIT WITHIN 3 MONTHS					REGRADE AREA IN A MANNER ESTABLISHED BY RULES AND REGULATIONS; GRADE OVERBURDEN TO REDUCE PEAKS AND DEPRESSIONS BETWEEN PEAKS TO PRODUCE A GENTLY ROLLING TOPOGRAPHY			PLANTING TO BE ACCOMPLISHED WHEN REVEGETATION IS PRACTICABLE			
WASHINGTON	DEPARTMENT OF NATURAL RESOURCES	NOT LESS THAN \$100 NOR MORE THAN \$1,000 PER ACRE	APPROVAL OF DIRECTOR						PEAKS AND DEPRESSIONS OF SPILL BANKS GRADED TO GENTLY ROLLING TOPOGRAPHY; EXCAVATIONS, SIDE SLOPES SHALL BE NO STEEPER THAN 1/4 FEET HORIZONTAL TO 1 FOOT VERTICAL	IN ACCORDANCE WITH PLAN	SHALL BE MADE WITH NON-NOXIOUS, NONFLAMMABLE, NONCOMBUSTIBLE SOILS			COVERED WITH AT LEAST 2 FEET OF CLEAN FILL	REVEGETATION SHALL BE ACCOMPLISHED WITHIN 2 YEARS AFTER COMPLETION OR ABANDONMENT OF SURFACE MINING ON EACH SEGMENT OF THE PERMIT AREA
WEST VIRGINIA	DEPARTMENT OF NATURAL RESOURCES	NOT LESS THAN \$600 NOR MORE THAN \$1,000 PER ACRE, \$10,000 MINIMUM	RELEASED BY DIRECTOR ONCE WORK HAS BEEN SATISFACTORILY PERFORMED	DURING FIRST PLANTING AND/OR SEEDING SEASON	SOIL ACIDITY EXPRESSED AS PH	REQUIRED IN ALL ACID-PRODUCING MATERIALS AND ACID-PRODUCING OVERBURDEN			ALL OUTER SLOPES, WHERE ORIGINAL SLOPE IS 30% OR LESS, SHALL BE GRADED SO AS TO BLEND INTO ADJOINING UNDISTURBED LANDS	GRADING AND BACKFILLING TO FOLLOW MINERAL REMOVAL BY A PERIOD NOT TO EXCEED 60 DAYS	COVER FACE OF COAL AND DISTURBED AREA WITH MATERIAL SUITABLE TO SUPPORT VEGETATIVE COVER	DURING SEASON FAVORABLE FOR SEED GERMINATION AND PLANT SURVIVAL	LEGUMES AND PERENNIAL GRASSES AT LEAST 80% GROUND COVER; WOODY PLANTS SURVIVAL MINIMUM OF 4 FEET OF MATERIAL SUITABLE FOR VEGETATIVE GROWTH	TO BE PLACED BACK INTO PIT AREA BEFORE FINAL REGRADING BEGUN. COVERED WITH MINIMUM OF 4 FEET OF MATERIAL SUITABLE FOR VEGETATIVE GROWTH	
WYOMING	DIVISION OF LAND QUALITY	AMOUNT EQUAL TO ESTIMATED COST OF RECLAIMING AFFECTED LAND. IN NO EVENT WILL BOND BE LESS THAN \$10,000.	75% MAY BE RELEASED WHEN RECLAMATION PLAN COMPLETE FOR AFFECTED LAND. REMAINING PORTION SHALL NOT BE LESS THAN \$10,000. AND SHALL BE HELD FOR AT LEAST 5 YEARS AFTER DATE OF REDUCTION TO ASSURE PROPER REVEGETATION	MUST MEET WITH APPROVAL OF ADMINISTRATOR		TOPSOIL UNLESS NON-EXISTENT; THEN MUST STOCKPILE	PROTECT FROM WIND AND WATER EROSION AND FROM ACID OR TOXIC MATERIALS		APPROXIMATE ORIGINAL CONTOUR	CONDUCT ACCORDING TO APPROVED MINING PLAN	REQUIRED	ACCORDING TO APPROVED RECLAMATION PLAN	COVER OF NATIVE VEGETATION CAPABLE OF SELF-REGENERATION	COVER, BURY OR IMPOUND	RECLAIM AFFECTED LAND AS MINING PROGRESSES IN CONFORMANCE WITH APPROVED RECLAMATION PLAN

EXPLORATION PLAN REQUIREMENTS

REQUIREMENTS		FEDERAL										STATE								
The proposed Federal requirements listed below are revisions of 30 CFR Parts 211, 216 and 43 CFR Part 23, with the addition of Part 3041, as appearing in the Federal Register, Vol. 40, No. 173.		PROPOSED 40 FR 173 SEPT. 5, 1975	EXISTING 30 CFR 211 43 CFR 23	AL	AK	AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND
1. Brief description of geologic, water, vegetation, fish, wildlife, and other physical factors that may be affected by the proposed operation within the exploration area	211.10(b)(1)	A2-1		R4-1, R1-1				A1-1					A2-1		R1-1, R1-2		1.	A1-1, R1-1, R1-2, R1-3, R1-4		
2. A description of the present land use within and adjacent to the area	211.10(b)(2)	A2-2															2.			
3. A narrative description, including:	211.10(b)(3)	A2-3															3.			
a. Method of exploration and types of equipment to be used	211.10(b)(3)(i)	A2-3		R4-2									A2-2				a.	R1-5		
b. Mitigating measures planned, including, but not limited to:	211.10(b)(3)(ii)	A2-4															b.			
1) Fire control		A2-4															1)			
2) Soil erosion		A2-4															2)			
3) Pollution of surface and ground water		A2-4											A2-3				3)	R1-6		
4) Air pollution																	4)			
5) Damage to fish, wildlife and habitat		A2-4															5)	A1-2, R1-7		
6) Damage to other natural resources																	6)			
7) Hazards to public health and safety		A2-4															7)	A1-3		
c. Method for plugging drillholes	211.10(b)(3)(iii)												A2-4		I1-1		c.	A1-4		
d. Method proposed for surface reclamation taking into account the impact on adjacent land uses, and shall include, as appropriate:	211.10(b)(3)(iv)	A2-5		R4-3													d.	R1-8		
1) Reclamation schedule	211.10(b)(3)(iv)																1)			
2) Method of grading, backfilling and contouring	211.10(b)(3)(iv)																2)			
3) Method of soil preparation and fertilizer application	211.10(b)(3)(iv)																3)	R1-9		
4) Type and mixture of shrubs, trees, grasses, or legumes to be planted	211.10(b)(3)(iv)																4)	R1-10		
5) Method of planting, including application rates and spacing	211.10(b)(3)(iv)																5)	R1-10		
4. Estimated timetable for each phase of the work and for final completion of the program	211.10(b)(4)			R4-2											R1-3		4.	R1-11		
5. Five copies of suitable map or aerial photograph showing existing:	211.10(b)(5)	A2-6													R1-4		5.	R1-12		
a. Topographic features		A2-7															a.			
b. Cultural features		A2-7															b.			
c. Drainage features		A2-7															c.			
d. Location of exploration activities, including:													A2-4				d.			
1) Drill holes															R1-4		1)	R1-13		
2) Trenches															R1-4		2)	R1-14		
3) Access roads															R1-4		3)	R1-15		
4) Other items as required by the Mining Supervisor		A2-8															4)			

EXPLORATION PLAN REQUIREMENTS

STATE																											
AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND	OH	OK	OR	PA	TN	TX	UT	VA	WA	WV	WY		
		A1-1					A2-1		R1-1, R1-2		1. A1-1, R1-1, R1-2, R1-3, R1-4						A1-1		R1-1	R1-1,R1-2		R1-1	A1-1	A1-1	R1-1	1.	
											2.												I1-1				2.
							A2-2				3. a. R1-5												I1-2			A1-1	3. a.
											b.																b.
							A2-3				1) R1-6													I1-1	R1-2	1)	
											2) R1-6													I1-2	R1-3	2)	
											3) R1-6														R1-2	3)	
											4)																4)
											5) A1-2, R1-7														R1-4	5)	
											6)													I1-3			6)
							A2-4		I1-1		7) A1-3														R1-5	7)	
											c. A1-4														A1-2	c.	
											d. R1-8														R1-6	d.	
											1)																1)
											2)																2)
											3) R1-9															R1-8	3)
											4) R1-10															A1-4,R1-9	4)
											5) R1-10															R1-9	5)
									R1-3		4. R1-11																4.
									R1-4		5. R1-12																5.
											a.																a.
											b.																b.
							A2-4				c.																c.
											d.																d.
									R1-4		1) R1-13															R1-14	1)
									R1-4		2) R1-14															R1-13	2)
									R1-4		3) R1-15															R1-13	3)
											4)															R1-15	4)

NO STATE REQUIREMENTS. SEE FOOTNOTES.

NO STATE REQUIREMENTS. SEE FOOTNOTES.

STATE																											
AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND	OH	OK	OR	PA	TN	TX	UT	VA	WA	WV	WY		
							A2-4				1.	R1-16			I1-1					R1-6					R1-16	1.	
											2.				A1-1												2.
											3.				A1-2												3.
											4.																4.
							A2-5				5.	R1-17			I1-2										R1-17	5.	
											a.				A1-3											a.	
											b.	R1-18			A1-3											b.	
											c.	R1-19														c.	
											6.															6.	
							A2-6				a.	R1-20			A1-4, I1-3											a.	
											b.	R1-21			A1-5											b.	
											7.	R1-22														7.	
											8.															8.	
											9.	A1-5														9.	
											10.															10.	

NO STATE REQUIREMENTS. SEE FOOTNOTES.

NO STATE REQUIREMENTS. SEE FOOTNOTES.

REQUIREMENTS	FEDERAL																STATE			
The proposed Federal requirements listed below are revisions of 30 CFR Parts 211, 216 and 43 CFR Part 23, with the addition of Part 3041, as appearing in the Federal Register, Vol. 40, No. 173.	PROPOSED 40 FR 173 SEPT. 5, 1975	EXISTING 30 CFR 211 43 CFR 23	AL	AK	AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND	
1. Description of the environment within the mining area, including: a. Geologic conditions and hazards b. Soil types, depths and distribution c. Vegetation types, density and distribution d. Monthly temperature range and precipitation e. Average wind direction and velocity f. Dominant fish and wildlife species	211.10(c)(1)	A2-12		A1-1, A2-1		A1-1	A1-2, G1-1 G1-2, G1-3 A1-3 G1-4 A1-3 A1-3	A1-1 A1-2 A1-3	G1-1 A1-1 A1-2 A1-2	I1-7							1. R1-25, R2-6, A2-1 a. b. R1-26 c. R1-27 d. A1-20 e. A1-21 f. R1-28	A1-1, R1-1 R1-2 R1-3 R1-4 R1-5 R1-6	A1-1 R1-1, R1-2 A1-2, R1-3 R1-4	
2. Describe conditions of the land covered by the mining plan prior to mining, including: a. Current land use b. Capability to support alternative uses, considering: 1) Soil characteristics 2) Annual precipitation 3) Topography 4) Vegetation	211.10(c)(2) 211.10(c)(2)(i) 211.10(c)(2)(ii)						G1-5		A1-3 A1-4		A1-1	A1-1, R1-1 I1-1		I2-1	I1-1		2. A1-22 a. b. 1) 2) 3) 4)	R1-7 R1-7	R1-5, R1-6 R1-7	
3. Proposed post-mining land use a. Proposed use after reclamation b. Compatibility with state and local land use plans and programs	211.10(c)(3)		I2-1			A1-2 A1-2	A1-4 G1-6, A1-5	A1-4 A1-5	A1-5 A1-6	I1-8 G1-3	A1-2	A1-2 R1-2	I1-2	I4-1	I1-2 A1-1		3. R2-7 a. b.	R1-8	A1-3 R1-8 A1-4	
4. Description of achieving post-mining land use, including any necessary support activities and facilities	211.10(c)(4)	A2-13	A1-2	R4-4		A1-3	A1-6	A1-6, I3-1	G1-2			R1-3			A1-2		4.	R1-9		
5. A narrative description, including: a. Nature and extent of the coal deposit, including estimated recoverable reserves b. Mining method, including mining sequence and proposed production rate c. Engineering techniques to be used during mining and reclamation d. A description of the major equipment e. The plan for the control of water drainage and accumulation f. The plan for backfilling, soil stabilization, compacting and grading g. The plan for revegetation h. Estimate of cost per acre to achieve reclamation	211.10(c)(5) 211.10(c)(5)(i) 211.10(c)(5)(ii) 211.10(c)(5)(iii) 211.10(c)(5)(iii) 211.10(c)(5)(iii) 211.10(c)(5)(iii) 211.10(c)(5)(iii)						A1-7 A1-8	A1-7 A1-8	A1-7 A1-8 A1-9	I1-9 I1-10 I1-10 I1-11	A1-3 A1-4 A1-5	I1-2 A1-3 I1-3	A1-12 A1-13	I2-2 I2-3 I3-1 I3-2 R1-5	A1-3 A1-4 A1-5 A1-6 I1-3		5. A1-23 b. R2-8 c. R1-29 d. e. R2-9 f. R1-30 g. A1-24 h. A1-25	R1-10 R1-11 R1-12 R1-13, R1-14	A1-5 R1-9 R1-10 A1-6 R1-10	
6. Statement of operator's plans to comply with requirements set out in Section 211.40(a), "Performance Standards, Operating and Reclamation Standards." a. Conduct mining operations to maximize coal extraction b. Reclaim affected land to as good as or better condition as prior to mining c. Backfill mined-out areas with excess overburden and spoils to the approximate original contour, and: 1) Cover all acid-forming and toxic materials 2) Reshape excess overburden or spoils to prevent slides, erosion and water pollution d. Stabilize and protect all surface areas to effectively control erosion and mitigate air and water pollution e. Remove, stockpile and replace topsoil, and:	211.10(c)(5)(iii) 211.40(a)(1) 211.40(a)(2) 211.40(a)(3) 211.40(a)(3) 211.40(a)(3) 211.40(a)(4) 211.40(a)(5)	A2-17 A2-18 A2-19 A2-19 A2-19		R1-1, R4-5		A1-10	A1-10	A1-11	A1-14	A2-1	A1-8	A1-5	R1-5		A1-7		6. A1-26 a. A3-1 b. A1-27 c. R1-31 1) R1-32 2) A1-28 d. A1-29 e. R1-33	R1-15 R1-16 R1-17 R1-18 R1-19	A1-6 R1-10 A1-7 A1-8 A1-9 A1-10	

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REQUIREMENTS	FEDERAL										STATE									
	PROPOSED 40 FR 173 SEPT. 5, 1975	EXISTING 30 CFR 211 43 CFR 23	AL	AK	AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND	
The proposed Federal requirements listed below are revisions of 30 CFR Parts 211, 216 and 43 CFR Part 23, with the addition of Part 3041, as appearing in the Federal Register, Vol. 40, No. 173.																				
1) Maintain a quick growing vegetative cover to preserve topsoil from wind or water erosion	211.40(a)(5)										A2-4	R1-8	R1-7				1) R1-34			
2) Segregate, preserve and use overburden or sub-soil material if it can be shown to be more suitable for vegetation	211.40(a)(5)								A1-21		A2-4						2) R1-35		A1-11	
f. Create permanent water impoundments provided that:	211.40(a)(6)		A1-7			A1-15	G1-12	A1-14	A1-22	A1-6	R1-1	A1-10	A1-16 ,R1-8		A1-10		f. R1-36	R1-20	R1-11	
1) The impoundment is adequate for its intended purposes	211.40(a)(6)(i)								A1-23				R1-9				1)			
2) The impoundment will be designed and constructed in accordance with sound engineering practices and applicable Federal and State laws	211.40(a)(6)(ii)		R1-3						A1-24	G1-4, I2-1	A2-5	R1-9	R1-10		A1-11		2)	R1-37	R1-12	
3) The impounded water quality will be suitable for its intended use	211.40(a)(6)(iii)								A1-24			R1-10					3)	R1-38	R1-21	
4) Final grading will provide adequate safety and access for proposed water users	211.40(a)(6)(iv)								A1-25		A2-6						4)	R1-39		
5) Water impoundments will not adversely affect water resources utilized by adjacent landowners	211.40(a)(6)(v)		G1-1	R2-1		A1-8 ,R1-4		A1-15, G1-5	A1-26 ,G1-4	A1-7	A2-7	R1-11					5)	R1-21		
g. Cover or plug all auger holes with noncombustible material	211.40(a)(7)													R1-12			g.			
h. Minimize disturbances to the prevailing quality and quantity of surface and ground water on and adjacent to the mine site by:	211.40(a)(8)		A1-8											R1-13	A1-12		h.	R1-40	R1-22, R1-23	
1) Restricting water flow through acid and other toxic-producing materials (may require treatment before discharge)	211.40(a)(8)(i)	A2-14	I2-2, I1-11	R2-2		A1-16	A1-11	A1-16, G1-6	A1-27	I1-10	A1-10	A1-11	A1-17 ,R1-11	R1-5, R1-14	A1-13		1)	R1-41, R1-42	R1-24	A1-12, R1-13
2) Adequately sealing all drill holes, shafts and wells		A1-5											A1-18	R1-15			2)	A1-30		
3) Preventing, to the minimum extent practicable, contributions of suspended solids to stream flow or surface runoff	211.40(a)(8)(ii)	A2-14	A1-9			A1-14	A1-6, G1-7	A1-17	A1-28	I1-15		A1-12	R1-12	R1-5			3)	R1-43	R1-25	A1-12
4) Remove siltation structures after the area has been revegetated	211.40(a)(8)(iii)		R1-4						A1-29				R1-13				4)	R1-44		
5) Preserve the quality and quantity of upstream and downstream surface and ground water resources that support significant valley floor vegetation	211.40(a)(8)(iv)																5)			
i. Stabilize all mine waste piles through construction in compacted layers, and if necessary, by:	211.40(a)(9)			R1-2			G1-10	A1-18	A1-30		A2-2	A1-13					i.		A1-13	
1) The use of incombustible and impervious materials											A2-2			R1-16	A1-14		1)			
2) Shaping to be compatible with the natural surroundings and terrain									A1-25		A2-2	R1-7	A1-19	R1-17	A1-15		2)	R1-45	R1-26	A1-14
3) Cover with topsoil and revegetate									A1-30		A2-2	R1-12		R1-18	A1-16		3)	R1-46	R1-27	A1-15
j. Refrain from surface coal mining within 200 feet of active or abandoned underground mines	211.40(a)(10)													R1-19			j.			
k. All liquid and solid waste impoundments shall be designed and constructed according to sound engineering standards and practices	211.40(a)(11)		R1-5			A1-17			A1-28	A1-8, I2-2	A2-5	R1-13	R1-14		A1-11		k.	R1-39		R1-14
l. Treat or dispose all rubbish and noxious materials in a manner to prevent, and to dispose all coal mining and preparation of solid waste in a manner to prevent to the maximum extent practicable, air and water pollution and fire hazards	211.40(a)(12)			R1-3			G1-10	A1-19	A1-30	A1-9	A2-2	A1-14	A1-20	R1-20, R1-21	A1-17		l.	A1-31		A1-13

SHEET 3 OF 3

REQUIREMENTS		FEDERAL		STATE																
The proposed Federal requirements listed below are revisions of 30 CFR Parts 211, 216 and 43 CFR Part 23, with the addition of Part 3041, as appearing in the Federal Register, Vol. 40, No. 173.		PROPOSED 40 FR 173 SEPT. 5, 1975	EXISTING 30 CFR 211 43 CFR 23	AL	AK	AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND
m.	Conduct all blasting practices according to Federal and State laws and conditions specified by the Mining Supervisor which may include:	211.40(a)(13)							A1-20					R1-15			m.	R1-47		
1)	Adequate advance written notice of the proposed blasting schedule to local governments and residents	211.40(a)(13)(i)													R1-22		1)	R1-48		
2)	Maintain a log of the magnitudes and times of the blasts														R1-23		2)	R1-49		
3)	Limit the size, timing, and frequency of the blasts, as determined by the physical conditions of the site, to prevent personal injury or damage to property.	211.40(a)(13)(ii)							G1-7						R1-24		3)	R1-50		
n.	Construct, maintain and, when no longer necessary, remove roads, pipelines, powerlines, etc., with provisions for environmental safeguards	211.40(a)(14)		A1-10	R3-1		A1-18		G1-8	A1-31	A1-10	R1-2		R1-16	G1-2		n.	R1-51	R1-28	A1-16
o.	Construct all roads or access ways outside of existing stream beds or drainage channels	211.40(a)(15)		G1-2							I2-3, G1-5			R1-17			o.	R1-52		
p.	Establish a diverse, effective and permanent vegetative cover in the reclaimed areas, to include:	211.40(a)(16)	A2-20				R1-5		A1-21	A1-32	G1-6, A1-2 I1-16	A2-8	A1-2, R1-14	R1-18	R1-25	A1-6	p.	R1-53	R1-29	A1-17
1)	Species native to the area	211.40(a)(16)		A1-11			A1-19, A1-5	G1-13	A1-10		G1-7	A2-9 A2-9	R1-15	R1-19		A1-18	1)	R1-54	R1-30	A1-18
2)	Species capable of self-regeneration	211.40(a)(16)								A1-30							2)	A1-32		
3)	Approved use of introduced species as an interim measure to achieve quick cover	211.40(a)(16)										A2-10		R1-20			3)			
q.	Assume responsibility for revegetation for a minimum of 5 years and a maximum of 10 years from the original planting. The minimum period may be waived if rapid growing conditions exist	211.40(a)(17)		A1-12			A1-20		A1-22			A2-11	A1-15, R1-16	A1-21, R1-21		A1-19	q	R1-55, A1-32		A1-19
7.	The anticipated starting and termination dates of each phase of the mining operation and the number of acres to be affected	211.10(c)(5)(iv)		I1-12, I2-3			I2-1, A1-21	A1-12	I1-1	I1-1, A1-33	I1-17		A1-16, I1-5		I2-4	A1-20, I1-4	7.	R1-56, R2-10	R1-31	A1-20, R1-15
8.	The steps taken to comply with applicable air and water quality laws and regulations	211.10(c)(5)(v)	A2-21	R1-6, R1-7 I1-13			A1-22		G1-9	A1-34			R1-17		I4-2		8.			
9.	Proposed measures for insuring the maximum practicable recovery of the coal	211.10(a)(5)(vi)															9.	R3-1		
10.	An estimated timetable for each major step of reclamation	211.10(a)(5)(vii)	A2-13					A1-13, G1-14	A1-23	A1-35, G1-5		A1-11	A1-17	A1-22	I2-5	I1-5	10.	R2-11	R1-9	
11.	The logs and analyses of overburden samples and the method of depositing the spoils based on these samples	211.10(a)(5)(ix)						G1-15		A1-36, G1-6		A1-12		I1-3	I2-6		11.	A1-11		R1-16
12.	The hydrology of the area, including:	211.10(a)(5)(x)		I1-14													12.			R1-17 R1-18
a.	Quantity and quality of water in surface and ground water systems																a.	R1-57		
b.	Water levels and water table measurements																b.			R1-19
c.	Data regarding dissolved and suspended solids under seasonal flow conditions			I1-15										R1-22			c.	R1-58		
d.	An assessment of the probable impacts of the anticipated mining operation upon the hydrology of the area																d.			R1-20

STATE

STATE																										
AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND	OH	OK	OR	PA	TN	TX	UT	VA	WA	WV	WY	
			A1-20					R1-15			m.	R1-47			A1-23			A1-25	R1-20	A1-35						m.
									R1-22		1)	R1-48			A1-24									R1-16		1)
									R1-23		2)	R1-49												A1-14		2)
			G1-7						R1-24		3)	R1-50			A1-25									A1-15		3)
	A1-18		G1-8	A1-31	A1-10	R1-2		R1-16	G1-2		n.	R1-51	R1-28	A1-16	A1-26, I1-9				R1-21	A1-36	I2-9	R1-17		R1-17	R1-40	n.
					I2-3, G1-5			R1-17			o.	R1-52					I1-2		R1-22	A1-37		R1-18	R1-9	R1-18	R1-41	o.
R1-5			A1-21	A1-32	G1-6, A1-2 I1-16	A2-8	A1-2, R1-14	R1-18	R1-25	A1-6	p.	R1-53	R1-29	A1-17	A1-27, I1-10	A1-13	A1-6, R1-19	A1-19	R1-23	A1-38	R1-11	R1-19	R1-3	R1-19	R1-42	p.
A1-19, A1-5	G1-13		A1-10	A1-30	G1-7	A2-9 A2-9	R1-15	R1-19		A1-18	1)	R1-54	R1-30	A1-18	I1-11		R1-20		R1-24 R1-23	A1-38 A1-38	R1-12	R1-20 R1-21	R1-10	R1-20	R1-43 R1-44	1) 2)
						A2-10		R1-20			3)						R1-20			A1-38	R1-8	R1-22		R1-21	R1-45	3)
A1-20			A1-22			A2-11	A1-15, R1-16	A1-21, R1-21		A1-19	q	R1-55, A1-32		A1-19		A1-14, A1-15	R1-21		A1-17	A1-39	A1-3	R1-23, R1-24	R1-11	R1-22	R1-46	q
I2-1, A1-21	A1-12		I1-1	I1-1, A1-33	I1-17		A1-16, I1-5		I2-4	A1-20, I1-4	7.	R1-56, R2-10	R1-31	A1-20, R1-15	A1-28	I1-3	R1-22, I1-3	I1-1	R1-25		I1-2, I2-10	I1-5	A1-17, I1-3	I3-9, I2-2	I1-1	7.
A1-22			G1-9	A1-34			R1-17		I4-2		8.					I1-4		A1-26, R1-10, R1-11	R1-26	A1-40	A1-4		I2-1	R1-23	R1-47	8.
											9.	R3-1								A1-41						9.
	A1-13, G1-14		A1-23			A1-11		A1-22	I2-5	I1-5	10.	R2-11	R1-9		A1-29		R1-23, A1-7	A1-15	A1-18	A1-42	R1-13	A1-13	A1-18		R1-48	10.
	G1-15			A1-35, G1-5		A1-12		I1-3	I2-6		11.	A1-11		R1-16	I1-3		R1-24	A1-27, I2-3	A1-19	A1-43	R1-14				A1-12	11.
				A1-36, G1-6							12.			R1-17 R1-18									A1-19, I2-2	R1-24	R1-49 A1-17, R1-50	12. a.
								R1-22			b.			R1-19											R1-51	b.
											c.	R1-58														c.
											d.			R1-20						A1-44						d.

TABLE III-9

MINING PLAN MAP REQUIREMENTS

REQUIREMENTS	FEDERAL																	STATE				
	PROPOSED 40 FR 173 SEPT. 5,1975	EXISTING 30 CFR 211 43 CFR 23	AL	AK	AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND			
The proposed Federal requirements listed below are revisions of 30 CFR Parts 211, 216 and 43 CFR Part 23, with the addition of Part 3041, as appearing in the Federal Register, Vol. 40, No. 173.																						
1. Five copies of suitable maps or aerial photographs showing:	211.10(c)(6)	A2-9	A1-1	I2-1		I1-1	A1-14, G1-16	R1-1, A1-24	I1-2	G1-1	A1-13, A2-12	A1-18, R1-18	A1-1	R1-26, I2-7	A1-21, A1-22	1.	R2-1, R2-2	R1-32	R1-21, R1-22, R1-23			
a. Topography	211.10(c)(6)(i)	A2-10	R1-1, I1-1			I1-2	A1-15	A1-25	I1-1	I1-1		A1-19	A1-2	R1-27		a.	R2-3	R1-33	R1-24			
b. Cultural features		A2-10					A1-16	A1-26	A1-37	I1-2		A1-20	A1-3	R1-28	A1-23	b.	A1-6		R1-25			
c. Archeological features																c.	R2-4		R1-26			
d. Natural drainages							A1-16	A1-26	A1-38			A1-20	A1-3	R1-28	A1-23	d.	A1-7	R1-34	R1-27			
e. Roads and vehicular trails	211.10(c)(6)(ii)						A1-17, G1-17	A1-26, I3-2	A1-39	I1-3		A1-20, R1-19	A1-3	R1-28	A1-23	e.	A1-7		R1-28, R1-29			
f. Name and location of the watershed	211.10(c)(6)(ii)	A2-11	I1-2						A1-40	I1-4		A1-21	A1-4	R1-29	A1-24	f.	A1-8	R1-35	R1-30			
g. Location of the surface stream into which mine water will be discharged																g.						
2. Cross sections and plan views of land to be affected, including actual area to be mined, showing:	211.10(c)(6)(iii)								I1-3			A1-22		I2-8		2.	A1-9		R1-31, R1-32			
a. Location and elevations of drill holes																a.	A1-10		R1-33			
b. Nature and depth of overburden strata							A1-18, G1-18	A1-27	A1-41				I1-1	I2-9		b.	A1-11		R1-34, R1-35			
c. Information on subsurface water, if encountered, and its quality							G1-18	A1-28								c.	A1-8		R1-36			
d. Nature and thickness of any coal or rider seam above seam to be mined							G1-18		A1-42							d.	A1-11		R1-37			
e. Nature of stratum immediately beneath coal seam to be mined	211.10(c)(6)(iii)						G1-18									e.	A1-12		R1-37			
f. All mineral croplines							G1-18					A1-23	A1-5	R1-30	A1-25	f.	A1-13					
g. Strike and dip of coal to be mined			I1-3				G1-18									g.	A1-14	R1-36				
h. Existing surface mining limits								A1-29	I1-4			A1-24	A1-6	R1-30	A1-26	i.	A1-14					
i. Location and extent of known underground mines and their openings							G1-18									j.	A1-8		R1-36, R1-37			
j. Location of aquifers							G1-18		A1-43							k.	A1-15		R1-19			
k. Estimated elevation of the water table							G1-19						A1-7			l.		R1-37				
l. Locations of:							G1-20	A1-30	A1-41					I2-10		1)	A1-16		R1-38			
1) Spoil piles			I1-4				G1-20	A1-30						I2-10		2)	A1-16		R1-39			
2) Refuse areas			I1-5				G1-20	A1-30						I2-10		3)	A1-16		R1-39			
3) Waste disposal sites							G1-20	A1-30						I2-10		4)	A1-17		R1-38			
4) Topsoil stockpile areas								A1-30								5)	A1-18		R1-40			
5) All impoundments			I1-6				G1-21	A1-30	G1-7	I1-5		R1-20	R1-1	R1-31	A1-27	6)	R1-23		R1-40			
6) Other water treatment facilities			I1-7				G1-21			I1-5			R1-2	R1-31		7)	A1-8, R1-24	R1-35	R1-41			
7) Constructed or natural drainways			I1-8				A1-15, G1-21	A1-26	A1-40			A1-25	A1-8	R1-30	A1-27	8)	A1-8	R1-35				
8) Location of any discharges into any surface body of water on the affected or adjacent lands			R1-1						A1-44			A1-25	A1-8	I2-11	A1-28							
9) Cross sections of anticipated final surface configuration after reclamation						I1-3		A1-31								9)		R1-38	R1-42			
m. Locations of surface structures and facilities	211.10(c)(6)(iv)		I1-9				G1-21		A1-45	I1-6			A1-9 A1-10			m.	R2-5		R1-43			
3. Accuracy of maps shall be certified by a professional engineer, land surveyor, or other professionally qualified person	211.12(f)						G1-22	A1-32, I1-2		A2-1	A1-13, A2-12	A1-26	A1-11, I2-1	I2-12	A1-29	3.	A1-19					

[illegible]

TABLE III-10

ANNUAL OPERATING REPORT REQUIREMENTS

REQUIREMENTS	FEDERAL										STATE									
The proposed Federal requirements listed below are revisions of 30 CFR Parts 211, 216 and 43 CFR Part 23, with the addition of Part 3041, as appearing in the Federal Register, Vol. 40, No. 173.	PROPOSED 40 FR 173 SEPT. 5, 1975	EXISTING 30 CFR 211 43 CFR 23	AL	AK	AZ	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND	
1. Two copies of an up-to-date map of the mine, drawn to a suitable scale, will be submitted annually, and shall show: a. Location with reference to government landmarks or lines (e.g. section, township and range) b. Elevations with reference to mean sea level c. Annual progress of excavations in each separate coal seam d. Mine identification, and may include: 1) Name of mine 2) Name of lessee 3) Lease, permit or license serial number 4) BIA lease or permit contract number, and: a) Tribal name of tribal land b) Allotment number c) Name of reservation e. All lease boundaries f. Surface buildings g. Dip of coal seam(s) h. True north and map scale i. Explanatory legend j. Other information as may be requested by the Mining Supervisor k. Date and extension of each highwall, and a coal section at not less than 100-foot intervals along the highwall l. All areas mined out during previous year m. Stripped coal exposed in pits n. Elevations of the top of the coal beds o. Mining Supervisor may require vertical projects and cross sections to accompany plan views	211.12(a)	A2-22 A2-23 A2-24 A2-25	A1-13			A1-4	G1-23	R1-2, A1-33, I2-1 A1-33 A1-25 I2-2 I2-3	A1-46	I1-18 I1-19 I1-20 I1-21 I1-22 I1-23	A1-14	A1-27, R1-21	A1-23	R1-32	A1-30	1. a. b. c. d. 1) 2) 3) 4) a) b) c) e. f. g. h. i. j.	R1-59 A1-33 A1-33 A1-33 R2-5 A1-34	R1-39 R1-40 R1-41 		

ANNUAL OPERATING REPORT REQUIREMENTS

STATE

Z	AR	CA	CO	IL	IN	IA	KS	KY	MD	MO		MT	NM	ND	OH	OK	OR	PA	TN	TX	UT	VA	WA	WV	WY			
NO STATE REQUIREMENTS. SEE FOOTNOTES.	A1-4	G1-23	R1-2, A1-33, I2-1	A1-46	I1-18	A1-14	A1-27, R1-21	A1-23	R1-32	A1-30	1.	R1-59	R1-39	R1-44, A1-21, R1-45	A1-41	A1-16	G1-13	A1-28	R1-36	R1-21, R1-22	R1-28	R1-35	A1-21	A1-19	A1-29	1.		
			A1-33		I1-19						a.	A1-33												A1-20		a.		
			A1-25								b.	A1-33												A1-21		b.		
	A1-5		I2-2	A1-47	I1-20	A1-15	A1-28				c.	A1-33	R1-40	R1-46	A1-42						R1-29	R1-36	A1-22	A1-22	A1-30	c.		
	I1-2		I2-3		I1-21 I1-22 I1-23						d. 1) 2) 3)											R1-30	R1-37	A1-23		d. 1) 2) 3)		
											4)													A1-24	I2-3	A1-31	4)	
											a) b) c)															a) b) c)		
			I2-4	A1-47	I1-24						e. f. g. h. i. j.	R2-5	R1-41						A1-29			R1-32 R1-27	R1-38	I2-6	A1-23		e. f. g. h. i. j.	
	A1-6			A1-48	I1-25,I1-26 I1-27				I2-13	A1-31, A1-32	j. k.	A1-34		A1-22							R1-38 R1-39	R1-33	R1-39		I4-14 A1-24 I4-15		k.	
	A1-7		I2-2		I1-28	A1-15					l. m. n. o.	A1-35	R1-41				A1-17				R1-40		R1-23		A1-22	A1-22	A1-32	l. m. n. o.
				A1-49							2. a. b. c. d. e.															A1-33	2. a. b. c. d. e.	
	A1-6		A1-34 A1-31	A1-47	I1-30	A1-16		A1-24	R1-33	A1-33	e. f. g. h.	A1-33	R1-42	R1-47		A1-18				R1-41	R1-23	R1-34	R1-40	A1-25	A1-9	A1-34, A1-35	f. g. h.	
			A1-32		A2-1, I1-31		A1-29			I2-12	3. A1-36									R1-42			R1-34				3.	

NO STATE REQUIREMENTS. SEE FOOTNOTES.

The source of the format (left column) is a reorganized version of the USGS/BLM "Proposed Rules" of September 5, 1975. These rules are repetitive and somewhat disorganized as published. Actual submittals should follow the prescribed format of the permit-granting agency. Future work on this project may develop a generic format acceptable for companies requiring in-house reports from more than one state, but it is doubtful that all state or federal agencies will conform to one standard.

Comparisons of Legal Requirements - Inspection of Tables III-6 through III-10 indicates the "density" of footnoted listings found in Appendix J. The stringency of requirements in practice are not altogether measured by how many entries are in a state or federal column. The subject and literal meaning or interpretations of the requirement are also important. Thus, a study of the tables, footnotes, and, finally, the documents is necessary to determine "toughness" of a state. As mentioned before, implementation of the requirements by administrators is another variable beyond the scope of this evaluation.

EIS Requirements - Among the 27 states examined, 9 have some form of EIS requirement that is modeled after NEPA. The following 6 states have statutory mandates for state agencies to comply with a prescribed EIS procedure:

California	Montana	Indiana
Virginia	Maryland	Washington

Utah has EIS requirements under an executive order by Governor Calvin Rampton. Texas has a comprehensive environmental policy recommendation by the governor to agency administrators for voluntary compliance. In Arizona, only the Game & Fish Commission administrator has issued a policy statement similar to NEPA provisions.

8.5 SYNOPSIS OF CHAPTER 8

Chapter 8, Volume III, has been prepared in a format that can be read as a summary of the types of legal controls how they are imposed, trends, and mining regulations in effect as of January, 1976. The Appendices are formatted for updating and determining where a particular rule is found in the federal or state mining regulations.

APPENDIX H

FEDERAL AND WESTERN STATE TRENDS IN LEGISLATION
AFFECTING SURFACE MINING OF COAL

OVERVIEW

This report provides a summary of legislative trends that could affect surface mining of coal, particularly with regard to necessary permits, licenses, compliances, submissions of information, and other requirements of or conditions precedent to formulating a mining plan or commencing a surface mining operation. The summary indicates the type and detail of information and data gathering that may be necessary under certain circumstances. While not directly pertinent to mine planning or operations, other legislative trends are summarized which could directly or indirectly affect surface mining operations.

The term "legislative trends" is more accurate than "pending legislation" since legislation cannot be considered as "pending" unless it has been introduced but not finally acted upon in a current legislative session. Thus only some of the federal legislation analyzed or summarized is, technically, pending. Nevertheless, many of the state bills affecting coal surface mining that were defeated, postponed, or vetoed in the last state legislative sessions can be expected to be reintroduced in the same or similar form.

It is apparent from the summaries of both federal and state legislative proposals that the attention of legislators has concentrated on several major areas affecting coal surface mining:

- o Land use planning, including the authority to designate and regulate development in areas of "critical environmental concern" (or similar language);
- o Energy facility siting, even though surface mines per se are not generally included; and
- o Mined land reclamation.

While the fate of federal land use legislation is uncertain, it is becoming increasingly clear that the Congress is determined to enact some type of mined land reclamation legislation despite

presidential vetoes or threats of vetoes. For example, H.R. 25 -- the "strip mining bill" vetoed by President Ford in May 1975 -- will be reintroduced in the House in the 95th Congress as part of a bill on coal leasing.

At the state level, great emphasis is being placed on the following areas:

- o Wild, scenic, and recreational rivers and stream protection (Montana, Wyoming, Colorado);
- o "Export" policies that would either limit the amount of converted energy transported out of the state or curtail conversion of coal into energy resources for export (Montana and Wyoming); and
- o Requirements for consent of a surface owner prior to mining a severed mineral estate (Montana, Wyoming, North Dakota).

There is also a trend to protect streams or shorelands from any kind of development activity.

By far the most popular trend at the state level with respect to environmental legislation is the enactment of "little NEPA's" that are patterned in various forms after the National Environmental Policy Act (NEPA). Montana enacted a little NEPA in 1971, requiring environmental statements to be filed by state agencies; the Montana Act is almost a precise copy of NEPA. Wyoming enacted its "Industrial Development Information and Siting Act" in the 1975 legislative session patterned at least in part after detailed recommendations contained in a report of the American Bar Association. The legislation requires major developments to supply an exhaustively detailed list of socio-economic and biophysical information. The act has the effect of a little NEPA with respect to requirements imposed on private energy development without employing any of the standard NEPA terminology.

Colorado has been attempting to enact a little NEPA since 1972 but has not yet been successful. The 1975 version would have required environmental statements for "major actions," including those of private firms, corporations and individuals. New Mexico's proposed Environmental Quality Act of 1975 would have been a replacement for an earlier act which was repealed. Unlike Colorado, the actions of private companies would not have been specifically included. North Dakota's Environmental Policy Act passed both houses of the legislature in 1975 but was then killed by the Senate at the request of the Appropriations Committee. It also was patterned very closely after NEPA. The Utah Industrial

Location Act, proposed in 1975 but not enacted, has many characteristics of the siting act which Wyoming passed although some of the permit requirements would have been much closer to the language of NEPA.

There are now at least twenty states that have enacted "little NEPA" legislation although versions vary widely. There is no doubt that this trend will continue and it is predictable that the six Rocky Mountains' states analyzed in this report will eventually each have their own versions.

While the Federal Land Resources Planning Act, the so-called "Jackson Bill," has never been enacted by the Congress, it has already had widespread effect by having established the concept of designating and protecting from certain kinds of development "areas of critical environmental concern." Many other states, including some in the Rocky Mountains region, have adopted this approach by enacting requirements for either state or local governments, or sometimes both, to inventory such environmental components as wetlands, flood plains, wildlife habitat, historic sites, scientific resources, scenic resources, and even ecosystems. This concept was embraced by the Colorado Legislature in 1974 when it enacted H.B. 1041 which includes detailed provisions for identifying and protecting "areas or activities of state interest." While the language varies from bill to bill, legislatures in Montana, New Mexico, and Wyoming consider the same approach in 1975. The Wyoming State Land Use Planning Act was the only one to pass, however, and it defines "areas of critical or more than local concern" as being those "where uncontrolled or incompatible large scale development could result in damage to the environment, life or property, or the short or long term public interest is of more than local significance." Such areas include fragile lands, historic lands, natural hazard lands, renewable resource lands, and new town lands, among others that may be designated.

It should be noted that the Public Land Policy and Management Act ("BLM Organic Act") utilizes the same approach by proposing a national policy of protection of areas of "critical environmental concern" which would include scientific, historical, scenic, ecological, and archeological values.

In terms of the stringency of requirements for surface mining plans and operations, the six western states summarized might be given a "toughness rating" as follows:

- a) Montana
- b) Wyoming
- c) Colorado
- d) North Dakota
- e) New Mexico
- f) Utah

It is of course possible that such a rating will prove to be superficial as the regulations promulgated under the various laws as well as the degree of enforcement become clear.

Given the absolutism of some of the opposition to strip mining which characterize some of the leadership of the environmental community, it is surprising that more legislation is not introduced that would result in a total ban on this mining method. While a half dozen bills introduced but not passed in the 1975 Montana legislative session would have resulted in total or partial bans on strip mining in that state, most state and federal legislation seems to be much more concerned with how surface mining is undertaken rather than whether it proceeds. This can be interpreted as a recognition by the general public, including much of the environmental community, that some surface mining of coal is going to be necessary to meet national energy requirements.

FEDERAL

The four bills having the most significant impact on pre-mine planning are analyzed in this section. Because of the similarity of H.R. 25 (the "strip mining bill") to S. 391 (coal leasing amendments), only the latter is analyzed.

Public Land Policy and Management Act ("BLM Organic Act")

This act has been introduced and has failed to pass in several previous sessions of Congress. The latest print of the Subcommittee on Public Lands, Committee on Interior and Insular Affairs, House of Representatives, dated August 13, 1975, will be introduced in the Second Session of the 94th Congress probably in its present form. Since the bill is a major piece of public land policy legislation, based on some of the recommendations of the Public Land Law Review Commission, it could have widespread effect on all users of lands under the administration of the Bureau of Land Management as well as some lands under the administration of the Forest Service. While it does not amend the Mineral Leasing Act of 1920 with respect to coal surface mining (this is done by S. 391 analyzed later), it does make major amendments to former requirements for obtaining rights-of-way across the public lands for mineral development. Even though the "policy" and "guideline" provisions of the bill do not constitute permit or other requirements for surface mining, the departmental regulations which could flow from the policy statements could have a significant impact.

The declaration of policy in Section 101 would find it in the national interest to inventory and project future uses of the public lands through a land use planning process coordinated with other federal and state planning efforts. It would be the policy that the public lands be managed so as to protect the quality of "scientific, scenic historical, ecological, and archeological values" as well as to preserve and to protect certain lands in their "natural condition". It would also be a policy to provide habitat for fish and wildlife and to provide for outdoor recreation. The Act would call for the prompt development of regulations or plans for the protection of areas of "critical environmental concern". It would be the policy that any permit, license, or other authorization to use the public lands contain specific provisions authorizing revocation or suspension of such authorization.

Section 103 would define "areas of critical environmental concern" as those requiring special management attention, including no development, in order to "prevent irreparable damage to important historic, cultural, or scenic values, or natural systems or processes, or life and safety as a result of natural hazards".

The definition of "multiple use" would include a consideration of long-term needs of future generations for resources including recreation, minerals, wildlife and fish, and natural, scenic, scientific, and historical values.

Section 201 would provide for an inventory of all public lands and resources giving priority to "areas of critical environmental concern." This would also apply to the National Forest System. Land use planning criteria set forth in Section 202 would, like NEPA, require a "systematic interdisciplinary approach" and, again, would give priority to the designation and protection of areas of critical environmental concern. The Secretary of the Interior would be able to revoke or suspend any permit, license, or lease if found in violation of a term or condition, including a failure to comply with applicable state or Federal air and water quality standards.

Section 312 would mandate a review of "roadless areas" of 5,000 or more acres and require a report to the President with a recommendation as to the suitability or non-suitability of such lands for wilderness preservation. Ten years would be allowed for this process to be carried out, according to procedures set forth in the Wilderness Act of 1964. Any wilderness could be designated only by the Congress.

Title V on Rights-of-Way could directly affect surface mining operations. It would affect all rights-of-way across not only lands under the administration of the BLM but also those under the administration of the Forest Service.

- a) Requirements - The applicant would have to submit and disclose all plans, contracts, agreements, or other information related to the use of the right-of-way. The applicant would also have to disclose the identity of the participants in a business enterprise including the name and address of each partner and shareholder and the name and address of each affiliate in the enterprise.
- b) Right-of-Way Corridors - In order to minimize adverse environmental impacts and the proliferations of separate rights-of-way, utilization of common rights-of-way would be required. This means that different companies would be required to cooperate in the utilization of right-of-way "corridors".
- c) Environmental Requirements - With respect to rights-of-way having a "significant impact on the environment", the applicant would be required to submit a plan of construction, operation, and rehabilitation for a right-of-way which would comply with stipulations in the permit. This would include terms and

conditions to protect the environment, assure compliance with applicable air and water quality standards, assure compliance with siting requirements, and protect other lawful users of public lands. The applicant would also be required to protect the interest of individuals who rely on fish, wildlife, and biotic resources for subsistence as well as to minimize damage to scenic and aesthetic values.

Finally, Section 3 of the Act of August 30, 1949 (43 U.S.C. 687 b-2) would be amended to provide that "any person who prospects for, mines, or removes any minerals from any land disposed of under this Act, shall be liable for any damage that may be caused to the value of the land and the tangible improvements thereon by such prospecting for, mining, or other removal of minerals."

Energy Facilities Planning and Development Act of 1975

A number of "siting" bills can be expected to be introduced in the Congress in the near future. Some of them will be specialized bills (e.g., refineries, oil shale, coal gasification plants, nuclear power plants, etc.) and some will attempt to comprehensively cover all major energy facilities. This bill, not yet introduced but being circulated to federal agencies by the Administration, is in the latter category.

This bill would not be directed per se at surface mining operations since these have been addressed in specialized legislation. "Energy facility" would be defined as: electric generating plants; petroleum refineries; synthetic gas plans; oil shale processing plants; coal liquefaction and gasification plants; natural gas conversion facilities; and uranium enrichment facilities. Most of these major facilities would depend on surface mined coal supplies and would frequently be integrated with surface mining operations. Thus it is unrealistic to segregate surface mining operations and many of the energy facilities covered by the Act.

The overall purpose of the bill would be to simplify, consolidate, and expedite energy facilities planning and development. It would call for the preparation of a Natural Energy Site and Facility Plan, a five-to-ten-year national program, as well as State Energy Facility Management Programs to be accomplished within 18 months of the date of enactment. Each state management program would include a detailed environmental assessment. If the states failed to act, the federal government would prepare and promulgate a management program for them.

The Administrator of the Federal Energy Administration (FEA) would be responsible for supervising the overall federal approval and permit process "in order to coordinate, simplify, and expedite the processing of applications to construct energy

facilities. To carry this out, there would be developed a "single composite application" which would be the only federal application required prior to commencement of construction. The Administrator would be authorized to coordinate and expedite the review of applications for facility approval (including permits) and establish appropriate priorities and timetables for the completion of the review process.

There are not many specific requirements for applications spelled out in the Act. However, the Act specifies that a single draft environmental statement would be prepared and circulated which, of course, would affect the type of information prepared by applicants. The applicant would have to file a completed application for approval of the facility with the Administrator at least 18 months prior to commencement of construction.

Federal Coal Leasing Amendments Act of 1975 (S. 391)

It is significant that this bill passed the senate shortly after President Ford vetoed the "strip mining bill", both of which contained some provisions the administration opposes.

Disposition - Passed the Senate on July 31, 1975, by a vote of 84 to 12; must be considered by the House.

Definition of Surface Mining - Section 224(2) (A) defines surface coal mining operations as:

Activities conducted on the surface of lands in connection with a surface coal mine or surface operations and surface impacts incident to an underground coal mine...including such common methods as contour, strip, auger, mountaintop removal, box cut, open pit, and area mining...

Summary - This 124-page bill makes major amendments to the Mineral Leasing Act of 1920 with respect only to coal leasing. It authorizes the Secretary of the Interior to lease federal lands for coal on a competitive basis, either royalty or bonus, providing the leasing program is consistent with a comprehensive land use plan. The land use planning requirement also applies to the Secretary of Agriculture for National Forest lands. An exploration license and exploration plan, including environmental protection provisions, is also provided for.

Title I of the bill provides for lease terms; calls for lease terms; calls for the submission of an exploration plan; requires due diligence to curtail speculation in coal leases; sets lease acreage limits; and establishes the distribution of royalties to local government. Section 108 provides the following principles which are to guide the entire leasing

program: (1) timely and orderly development of federal coal resources; (2) environmental protection; and (3) receipt of fair market value for public resources.

Title II details the permit system, the application requirements, the data needed to be furnished by the prospective lessee, a requirement for bonds, the grounds for approval or denial of permits, and a provision for public notice and hearings. The Environmental Protection Performance Standards are detailed in Section 212. The same title also provides for inspection and monitoring, the fixing of penalties, and provisions for citizens' suits and enforcement. Section 219 provides the criteria for "Designating Areas Unsuitable for Surface Coal Mining." Title II is cited as the "Federal Lands Surface Mining Control and Reclamation Act of 1975" which has already been vetoed by President Ford as previously enacted.

Permit Requirements - Section 203 provides that no person shall engage in surface coal mining and reclamation operations on federal lands without a permit which shall terminate within three years of issuance if the permittee has not commenced operations. A valid permit carries with it a right to successive renewal upon expiration. Specific requirements to be met as conditions precedent to permit renewal are spelled out in the act.

Application Requirements - A vast amount of data is required to be submitted with a permit application, including but not limited to:

- a) Routing names, addresses and other information required in almost any application
- b) A disclosure of previous mining permits on federal or State lands held by the applicant
- c) A description of the type and method of coal mining operation, existing or proposed, including engineering techniques and equipment used
- d) Evidence of the applicant's legal right to enter and commence surface mining
- e) Name of the watershed and location of the surface stream to which water in the mining operation will be discharged
- f) Determination of the hydrologic consequences of the mining and reclamation operations, both on and off the mine site, with respect to the hydrologic regime

and the quantity and quality of water in surface and ground water systems; also a collection of data sufficient so that an assessment can be made of the probable cumulative impacts of all anticipated mining in the area on the hydrology and upon the water availability

- g) The climatological factors which are peculiar to the locality
- h) An accurate map or plan showing all the land to be affected, all types of information to be set forth on topographical maps of a scale of 1:24,000 or larger, including all man-made features and significant known archeological sites
- i) Cross section maps or plans of the land to be affected, including the actual area to be mined showing the pertinent elevation and location of test borings or core samplings depicting the following information:

"...the nature and depth of the various strata of overburden; the location of subsurface water, if encountered, and its quality; the nature and thickness of any coal or rider seam above the coal seam to be mined; the nature of the stratum immediately beneath the coal seam to be mined; all mineral crop lines and the strike and dip of the coal to be mined within the area of land to be affected; existing or previous surface mining limits; the location and extent of known workings of any underground mines, including mine openings to the surface; the location of aquifers; the estimated elevation of the water table; the location of spoil waste, or refuse areas and topsoil preservation areas; the location of all impoundments for waste or erosion control; any settling or water treatment facilities; constructed or natural drainways and the location of any discharges to any surface body of water on the area of land to be affected or adjacent thereto; and profiles at appropriate cross sections of the anticipated final surface configuration that will be achieved pursuant to the operator's proposed reclamation plan..."

- j) A statement of the result of test borings or core samplings from the permit area, including logs of drill holes, thickness of the coal seam found, chemical properties of the coal, sulfur content of any coal seam, chemical analysis of potentially acid or toxic forming sections of the overburden, and chemical analysis of the stratum lying immediately underneath the coal to be mined; and information pertaining to the coal seams, test borings, or core samplings

Reclamation Plan Requirements - These are also extremely detailed and include:

- a) Identification of the entire area to be mined
- b) Conditions of the land to be covered by the permit
- c) The use to which the land is to be put following reclamation
- d) A detailed description of how the proposed postmining land use is to be achieved
- e) Engineering techniques proposed to be used in mining and reclamation including a plan for the control of surface water drainage and a plan for backfilling, soil stabilization, compacting, grading and revegetation
- f) Steps to be taken to comply with applicable air and water quality laws and regulations and any applicable health and safety standards
- g) Consideration which has been given to developing the reclamation plan in a manner consistent with local, physical, environmental, and climatological conditions and current mining and reclamation techniques
- h) Consideration which has been given to insuring the maximum practicable recovery of the mineral resource
- i) A detailed estimated timetable of accomplishment
- j) Consideration which has been given to making the surface mining and reclamation operations consistent with state and local land use plans

- k) All lands, interests, or options held by the applicant
- l) Results of test borings made in the area to be covered by the permit including the location of sub-surface water, and an analysis of the chemical properties of the water including acid-forming properties of the mineral and the overburden
- m) A detailed description of the measures to be taken to protect water quantity and water quality
- n) "Such other requirements as the Secretary shall prescribe by regulation"

Permit Approval or Denial Criteria - Permit granting or renewal would be denied unless the applicant affirmatively demonstrated and the Secretary found that:

- a) All requirements of the Act and the federal lands program had been complied with
- b) It had been demonstrated that reclamation could be accomplished under the reclamation plan contained in the permit application
- c) An assessment of the probable cumulative impact of all anticipated mining on the hydrologic balance had been made to prevent "significant irreparable offsite damage to hydrologic balance"
- d) The area proposed to be mined was not included within an area designated unsuitable for surface coal mining
- e) Proposed surface coal mining operations "would not have a substantial adverse effect on alluvial valley floors underlain by unconsolidated stream laid deposits where farming can be practiced"

Coal Exploration Permit Requirements - Section 209 would provide that "the federal lands program shall include a requirements that coal exploration operations which substantially disturb the natural land surface be conducted under permit issued by the Secretary." (Emphasis added.) The application for a coal exploration permit would have to be supported by numerous technical data including:

- a) A general description of the existing environment
- b) The location of the area of exploration, including a copy of pertinent topographical maps

- c) A description of existing roads, railroads, utilities and rights-of-way
- d) The location of all surface bodies of water
- e) The planned approximate location of any access roads, cuts, drill holes, and necessary facilities that might be constructed in the course of exploration
- f) The estimated time of exploration
- g) The ownership of the surface land to be explored
- h) A statement describing the right by which the applicant intends to pursue his exploration activities
- i) Provisions for reclamation of all land disturbed in exploration

Environmental Protection Performance Standards - These proposed standards cover approximately twenty pages of the bill. At a minimum, the following requirements would apply:

- a) Conduct mining operations so as to maximize conservation
- b) Restore the land affected to a condition at least fully capable of supporting the uses which it was capable of supporting prior to any mining, or higher or better uses of which there is a reasonable likelihood
- c) Backfill, compact, and grade in order to restore the "approximate original contour" of the land with all highwalls, spoil piles and depressions eliminated so as to achieve an "ecologically sound land use" compatible with the surrounding region
- d) Stabilize and protect all surface areas
- e) Remove the topsoil in a separate layer and preserve it from wind and water erosion and keep it free of contamination
- f) Restore the topsoil or the best available sub-soil which is best able to support vegetation
- g) Protect offsite areas from slides or damage

- h) Create permanent impoundments of water on mining sites as part of reclamation activities only under conditions specified in the Act
- i) Seal all auger holes
- j) Minimize the disturbances to the prevailing hydrologic balance by undertaking specific steps detailed in the Act
- k) Stabilize all waste piles in designated areas through construction in compact layers, including the use of incombustible and impervious materials
- l) Refrain from surface coal mining within five hundred feet from active and abandoned underground mines
- m) Design all existing and new coal mine waste piles either temporarily or permanently as dams or embankments
- n) Insure that all debris, acid forming materials, toxic materials, etc., are treated so as to prevent contamination of ground or surface waters
- o) Insure that explosives are used only in accordance with existing state and federal law and under specific regulations detailed in the Act
- p) Insure that all reclamation efforts proceed in an environmentally sound manner and as contemporaneously as practicable with the surface coal mining operations
- q) Insure that the construction, maintenance, and post-mining conditions of access roads will control or prevent erosion, water pollution, damage to fish and wildlife, and public or private property
- r) Refrain from the construction of roads or other access ways up a stream bed or drainage channel so as to seriously alter the normal flow of water
- s) "Establish on the regraded areas, and all other lands affected, a diverse, effective and permanent vegetative cover native to the area of land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area; except, that introduced species may be used in the revegetation process where desirable and necessary to achieve the approved post-mining land use plan"

Section 213 would establish specific requirements for the mitigation of surface effects of underground coal mining operations which are not detailed in this summary.)

Designation of Areas Unsuitable for Surface Mining - Section 219 is critical in that it would provide that the Secretary could disallow coal leasing on lands found unsuitable for certain types of surface mining operations according to the following criteria:

- a) Incompatibility with existing land use plans
- b) Affecting fragile or historic lands where operations could result in "significant damage to important historic, cultural, scientific, and esthetic values and natural systems
- c) Affecting renewable resource lands in which such operations could result in a substantial loss or reduction of long-range productivity of water supply or of food or fiber
- d) Affecting natural hazard lands in which operations could substantially endanger life and property

It should be noted that S. 391 as adopted by the Senate applies only to strip mining on federal lands. However, the entire "strip mine bill" (H.R. 25), as vetoed by President Ford on May 21, 1975, is expected to be reintroduced in the House as a rider to H.R. 6721, the federal coal leasing legislation which is very similar to S. 391. Congressman John Melcher of Montana is reported to be "confident" that Congress will be able to override any new presidential veto.

Land Resource Planning Assistance Act (S. 984)

Disposition - Introduced by Senator Henry Jackson but not reported out at the last session of Congress.

Summary - S. 984 was reported by Senator Jackson to be a "simplified version" of earlier federal land use legislation which passed the Senate in 1972 by a vote of 60 to 18 and in 1973 by a vote of 64 to 21. The so-called "Jackson Bill" has never passed the House.

The legislation would establish a program of voluntary grants, totaling \$800,000,000 over eight years, to assist the states in an inventory of land resources, the retention of competent professional staff, the development of planning and institutional procedures and processes, and the implementation of land resource programs for "critical areas and uses of more than local concern." It is denied by the sponsors that the legislation would authorize federal control over state and local land use decision-making.

The two areas of S. 984 which could directly or indirectly affect coal surface mining, and the data requirements for a mining plan, concern identification by the states of "areas of critical state concern" and Title III which is cited as the "Energy Facilities Planning Act." Areas of critical state concern would be considered to be wetlands, flood plains, wildlife habitats, historic sites, large scale private development, and energy facilities, among others. However, any controls to be asserted in such areas would be asserted by state and/or local government and not by federal government.

Title III would encourage development of state energy facilities planning programs and establish an "expedited" federal energy facility licensing program. The objective would be to establish a "streamlined procedure" for approving or disapproving energy facility licenses and permits. The term "energy facility" would not include surface coal mining operations per se but would include all major coal conversion facilities. Under the bill, an energy facility planning process would include procedures for evaluating the environmental impact of energy facilities and identification of environmental baseline data. The bill would also call for much broader public participation in the energy facility planning process as well as in licensing and permitting.

Effect on Surface Mining - As with much other "siting" legislation, the proposed bill would affect surface mining indirectly through the establishment of a detailed siting process for coal conversion facilities. Where surface mines are integral to the conversion facility ("mine-mouth"), the effect would be more direct.

COLORADO

Over 100 environmentally-related bills, many of them potentially affecting surface mining, were introduced in the 1975 session. However, the bills many environmentalists consider "major" were defeated or postponed indefinitely. Unlike Wyoming and Montana, Colorado did not enact any legislation in 1975 significantly affecting surface mining.

Nevertheless, a number of bills that would affect surface mining can be expected to be reintroduced in similar form in the 1977 session and some will be on the Governor's "call" in the 1976 fiscal session. These could include: stream protection (S.B. 160); energy conservation (S.B. 222); mined land reclamation (H.B. 1033); fossil fuel severance tax (H.B. 1196); regional planning commission powers (H.B. 1506); and an environmental policy act (H.B. 1568).

For the benefit of persons required to submit or review information with applications for permits, licenses, or certifications, the discussions under all state headings will separate the bills into two classes:

- a) Bills that require more information or a new application
- b) Bills that affect surface mining of coal without directly requiring additional information

Bills Requiring Permits, Licenses, Certifications, or Certain Information

(Amending) Colorado Open Mining Land Reclamation Act of 1973 (Section 34-32-103, C.R.S. 1973) (H.B. 1033) -

Disposition

Postponed indefinitely.

Summary

Would increase area around open mines subject to regulation; forbid open mining in environmentally sensitive areas; extend regulation to open mining permits; increase and clarify the operator's reclamation requirements; supply standards for determining amount of operator's bond; empower the Land Reclamation Board to request the Attorney General to enjoin violations; provide for "citizens suits" to encourage enforcement; and provide for an inventory of mining operations. "Opening mining" would include the mining of any mineral, including coal, by removing the overburden lying above the deposit and mining directly from the deposits thereby exposed. The term would include, but not be limited to, open cut mining, open pit mining, and strip mining.

Administering Agency

Would authorize a Land Reclamation Board of seven members including: Executive Director, Department of Natural Resources; Deputy Commissioner of Mines; Chief Inspector of Coal Mines; State Geologist; member of the State Soil Conservation Board; and two persons appointed by the Governor.

Permit Requirements

A permit would be required from the Board to engage in any new open mining.

Application Requirements - The operator desiring to engage in new open mining would have to make written application to the Board for a permit and publish a notice of intent to file an application in a newspaper of general circulation. The application would have to contain the following information: legal description and area of land affected; owner of the surface; owner of the substance to be mined; source of the applicant's legal right to enter and mine the area; office address of the applicant; name of affiliated persons or companies holding other permits; detailed description of the method of operation to be used; size of the area to be worked at any one time; timetable giving the periods of time required for various stages of the operation; results of any test borings or core samplings including the nature and depth of various strata of overburden and topsoil, quantities and location of subsurface water and its quality, and the thickness of any mineral seam; a cross section depicting the thickness and geologic character of all known strata beginning with topsoil; and any other information deemed pertinent by the Board.

In addition to this information, the application would have to be accompanied by a map showing, among other things, the name and location of all creeks, roads, buildings, oil and gas wells and mines, and power and communication lines on the area of land affected. The map would also have to show the topography of the area with detailed contour lines; the type, thickness, and distribution of soil; the type, character, and density of present vegetation cover; the depth and thickness of all minerals and any other similar material or substance of commercial value; the thickness and type of overburden; the expected physical appearance of the area to be mined and the area of land to be affected, correlated with a timetable.

A basic fee of \$50 plus \$15 for each acre or fraction thereof affected by the mining operation would have to accompany the application.

Requirements Once Permit Obtained - The permittee would have to submit a reclamation plan on each permit anniversary date and a map showing the reclamation accomplished; strike off ridges to conform with existing topography; dispose of refuse to control stream pollution and unsightliness; remove and protect topsoil so that it would be maintained in "such condition that it can sustain vegetation of at least the quality and variety of that sustained prior to removal." The operator would be allowed alternative choices of reclamation: reforestation; range; agricultural or horticultural crops; development for homesite, recreational, industrial, or other uses. Reclamation criteria would vary with the alternative selected. All reclamation work would be completed within three years of the date it is commenced. Specific criteria would guide the Board in setting bond.

Denial of Permit

"The Board shall not approve the application for an open mining permit where the area of land described in the application includes land having special, exceptional, critical, or unique characteristics or when mining in that area would adversely affect the use or fundamental character of neighboring land having special, exceptional, critical, or unique characteristics." (Similar to Montana's laws.) These terms are not defined and could be broadly or narrowly interpreted.

Enforcement

Would require written notice of violation to operator and provide for a hearing before the Board to answer chargers. Orders would be at the discretion of the Board and injunctions would be authorized.

Penalties

No specific penalties provided.

Concerning The Environment and Authorizing Environmental Assessments (Originally "Colorado Environmental Policy Act") (Amending "Article 68 of Title 24, C.R.S. 1973") (H.B. 1568) -

Disposition

Postponed indefinitely.

Summary

This bill was introduced as one of many versions of a Colorado "little NEPA" introduced in this and previous sessions. It would declare a policy to minimize adverse environmental consequences of proposed "major actions", including those of private firms,

corporations, and individuals; declare that "no person has an absolute right or privilege to use property in the manner that would degrade the environment of others"; require the preparation and public disclosure of an analysis of the foreseeable environmental consequences of a proposed major action; include strip mining, reservoirs with capacities in excess of 5,000 acre feet, waste water disposal capacity in excess of 100,000 gallons per day, coal gasification plants, and certain pipelines and slurries within the definition of "major action"; provide for environmental Policy Act to be submitted to the appropriate local government and to the Colorado Land Use Commission (LUC); provide for a public hearing under certain circumstances; prohibit major actions not preceded by a "declaration" of proposed major action or an environmental assessment; and allow the LUC to issue cease and desist orders with the consent of the Governor or seek an injunction.

Administering Agency

Concurrent authority would be granted to the local government in whose jurisdiction the major action was to occur and the LUC both of which would review "declarations" of proposed major actions and either of which could require an environmental assessment. Also, either could reject an environmental assessment.

Permit Requirements

No formal permit would be required. In lieu of a permit, any proposer of a "major action" would be required to submit a "declaration" for determination by the local government or the LUC of the need for an environmental assessment.

Environmental Assessment Requirements

Would generally follow the outline of NEPA but also includes an assessment of any effects on the economy of the state and the local area, including effects on business, employment, public revenues, and governmental cost. An environmental impact statement prepared under Section 102 of NEPA could be accepted in lieu of a separate environmental assessment unless determined by the local government of the LUC to be inadequate. Preparation of the environmental assessment would be at the expense of the person filing the declaration of a proposed major action. A public hearing on the proposed action would be mandated if the local government or the LUC determined such hearing "desirable" or if at least 100 qualified electors requested it in writing. Either the local government or the LUC could reject any environmental assessment if the environmental coverage was found to be inadequate. "No action may proceed for which a declaration . . . or environmental assessment is required . . . if such declaration or assessment has not been accepted . . ."

Enforcement

Either the local government or the LUC could issue cease and desist orders. However, the LUC would have to receive the written consent of the Governor. (Apparently, this would not be required of the local government). Also, the local government or the Commission could request the appropriate legal authorities to bring an action for an injunction.

Penalties

Although the amended version of the bill does not provide for specific penalties, the original version provided for a penalty of not more than \$2,500 per day for each day of violation of a cease and desist order or an injunction.

Revision To The "Air Pollution Control Act Of 1970" (Section 25-7-103, C.R.S., 1973) (H.B. 1569) -

Disposition

Passed the House; postponed indefinitely in the Senate.

Summary

This was proposed as a major revision to the "Air Pollution Control Act of 1970" with regard to permit requirements, enforcement, hearings, and penalties. The bill would require the owner or operator of any air contamination source to prepare and maintain reports; install and maintain monitoring equipment; record or sample emissions; and provide other information. A permit system would be established for new air contamination sources and new indirect air contamination sources. A "Compliance Board" would be created to replace the variance board. Stiff civil and criminal penalties would be provided.

Administering Agency

Division of Administration, Department of Health; newly created Compliance Board; Air Pollution Control Commission.

Permit Requirements

A permit would be required from the Division for the construction or substantial modification of any building, facility, structure, or installation, except single family dwellings, or the installation of any machine, equipment, or other device. The controlling criterion would be the determination of whether or not the structure or device would "constitute a new air contamination source or a new indirect air contamination source." The Commission would be empowered to establish rules, regulations, and procedures for the issuance or denial of permits.

Application Requirements - It would be up to the Division to determine what plans, specifications, air quality data, and other information would be necessary to be filed with the application for the permit. Notice of a proposed project or activity would be given by the Division if so designated by either the Commission or the Division. If public notice were given, the Division could hold a public hearing.

Permit Criteria - The Division would have to grant the permit "unless it determines that the proposed project or activity would not meet applicable emission control regulations" or "would interfere with the attainment of the then existing federal or state ambient air standards."

Denial of Permit - If a permit were denied, the applicant may request within thirty days, a hearing to review the Division's decision before the Air Pollution Control Commission.

Enforcement

The Compliance Board would be newly created for the purpose of conducting hearings on alleged violations. Injunctions would be available as an enforcement mechanism.

Penalties

Civil and criminal penalties could be severe. Civil penalties could run as high as \$12,500 per day for each day of violation. Knowingly, intentionally, recklessly or with criminal negligence causing an emission without a permit would be considered a misdemeanor, punishable by a fine of not more than \$25,000 per day of pollution or imprisonment for six months, or both. Any person convicted of this second or subsequent violation would be guilty of a felony punishable by a fine of not more than \$50,000 per day of violation, by imprisonment of five years, or both. "Open burning" without a permit would be considered a class two petty offence subject to a penalty of \$100 per day for each day of violation. (Amending) "Colorado

(Amending) "Colorado Land Use Act Of 1974" (Article 65.1 of Title 24, C.R.S. 1973) (H.B. 1006) -

Disposition

Postponed indefinitely.

Summary

This act would amend H.B. 1041 passed in 1974, primarily with respect to new communities. It would also provide criteria for administration of activities of state interest and would

make certain provisions for permits for developments of "major impact." This would include certain surface mining activities since a "mineral resource area" was included as an activity of state interest in the original bill.

Administering Agency

Colorado Land Use Commission.

Permit Requirements

Developments in an area or activity of state interest would require a permit from the local government in whose jurisdiction the development or activity was to take place. This is a requirement of H.B. 1041. Under the new "criteria for administration of activities of state interest," several requirements which could apply to surface mining operations would be added: a development of major impact would have to be developed in conformance with a local or regional master plan; a plan for a development of major impact would have to project that the net public cost of providing public services would not exceed the revenues generated by the development; and, in a development of major impact, services and facilities would have to be provided in a manner which "compliments and does not detrimentally affect similar existing facilities in the region."

Administration

Under the new amendments, the LUC would: develop procedures, guidelines, and methods for identifying developments of major impact; conduct a continuous evaluation of the criteria applicable to developments of major impact; develop and continue to update analytical methods and procedures to be employed by local governments; and develop and publish model guidelines for administration for use by local governments.

Bills Affecting Surface Mining

Change In The Cost Of Air Pollution Permit Fees (Section 25-7-112 C.R.S. 1973) (H.B 1463) -

Disposition

Passed House; Senate delayed indefinitely.

Summary

Would provide for an increase in the cost of air pollution permits issued by the Division of Administration of the Department of Health under the "Colorado Air Pollution Control Act of 1970."

Administering Agency

Division of Administration of the Department of Health.

Permit Requirements

Permit requirements would not be changed by this amendment. The change would be from a fee of \$200 that would be collected under the original legislation to a "graduated annual fee" not to exceed \$300.

Protection Of Fishing Streams (Amending "Section 33-5-101, C.R.S. 1973) (S-B 160) -

Disposition

Postponed indefinitely.

Summary

Would extend protection of fishing streams to apply to actions by municipalities, counties, and other persons.

Administering Agency

Wildlife Commission of the Division of Wildlife, Department of Natural Resources.

Requirements

The bill would require that no person could obstruct, damage, diminish, destroy, change, modify, or vary the natural existing shape or form of any stream, or its banks or tributaries by any type of construction without first notifying the Commission of such planned construction. Notice would have to be submitted to the Commission not less than 90 days prior to the date of commencement of planned construction. The notice would include detailed plans and specifications of the project as would or could affect any stream. (Note: The only significant change between this bill and the existing legislation is that it adds "other persons" and, therefore, would affect surface mining where before it did not.)

Preservation Of Commerical Mineral Deposits (Amending "Section 34-1-304, C.R.S. 1973") (H.B. 1516) -

Disposition

Passed House; postponed indefinitely in Senate.

Summary

This bill would require that the County Commission, in preparing a master plan for extraction, consider in addition to those things already in the act the following: "the potential recreational, scenic, archeological, and wildlife preservation uses of the area."

Providing For A System Of Development Rights (H.B. 1643) -

Disposition

Postponed indefinitely.

Summary

Would authorize local governments to establish "development rights" areas.

Administering Agency

Municipal or county planning commissions.

Effects On Surface Mining

"Development right" means a percentage of interest in a category of rights to development. Municipal or county planning commissions could create a development rights district master plan for part of or all the area under their jurisdiction.

The effect of this type of system on a surface mining coal operation would be that, in order to establish an on-going operation, mining operators would have to establish that they had sufficient development rights prior to the issuance of any permit. In effect, if the amount of land where the development would take place did not have sufficient development rights, such rights would have to be acquired from other land owners in the district. Such a sale or transfer of development rights would be regulated by the Real Estate Commission.

Land Use Planning And Urban Service Area Act Of 1975 (Adding Article 22 to 73 C.R.S. 29) (H.B. 1092) -

Disposition

The bill lost on third hearing in the House.

Summary

Would set up a procedure to establish urban service areas, the purpose of which would be to provide for planned and orderly growth throughout the state.

Administering Agency

The LUC would have the authority to approve of county and municipality comprehensive plans. Once the plans had been enacted, the local government would determine compliance.

Effect on Surface Mining

In the procedure for designating urban service areas, a comprehensive plan for each area would have to be prepared, outlining the planned growth and development of that area. Once the plan had been completed by the local government, it would have to be approved by the LUC. Any extraction and processing of natural resources within an urban services area would be required to comply with the comprehensive plan. In areas outside of urban services areas, uses such as extraction and processing of natural resources would be uses of right subject only to county or other applicable restrictions.

MONTANA

The Montana legislature has, during the past several years, established a trend by enacting a large volume of environmental legislation, much of it directly or indirectly affecting the surface mining of coal. In fact, it can be generally observed that Montana has the most stringent legislative and regulatory environmental quality control requirements of any state in the Rocky Mountains or Northern Great Plains regions. It can be further observed that environmental quality legislation introduced but defeated in neighboring states is often enacted into law in Montana.

This trend is expected to continue as indicated by the number of bills relevant to this study that were passed by the forty-fourth Montana legislature in 1975 and signed by the Governor. Some examples: an act providing for "conservation easements" (H.B. 341); major revisions to state water pollution control laws (H.B. 370); an act revising the provisions governing coal mining on state lands (H.B. 533); a bill requiring the filing of an "educational impact statement" prior to the opening of any new strip mine (H.B. 535); major qualification and general revision of the metal and non-metallic mine safety laws (H.B. 551); a bill requiring the written consent of the surface owner prior to the issuance of a strip mining permit (H.B. 569); major amendments to the Montana Utilities Siting Act of 1973 (H.B. 581); and a major land use bill creating a state Land Use Commission to designate areas of state concern requiring regulation of development within such areas (S.B. 391). These are only a few examples. The following are bills that were not passed in the last session but are expected to be reintroduced in the next session, either in their present form or with slight modifications.

Bill Requiring Permits, Licenses, Certifications, or Certain Information

(Amending) The Strip Mining and Reclamation Act to Protect Agricultural Lands on Alluvial Valley Floors (Amending Section 50-1042, R.C.M. 1947) (H.B. 349) -

Disposition

Referred to conference committee.

Summary

Would deny the application for a strip mining permit unless the applicant could affirmatively demonstrate, and the department make a written finding, that the mining operation would not have a substantial adverse effect on crop lands overlying "alluvial valley floors" which would be defined in

the Act. The new requirement would not apply to strip mining permits already issued or to successive permits issued to the same operator.

Comment

This adds "alluvial valley floors" to lands having "special, exceptional, critical, or unique characteristics." Protection of alluvial valley floors was offered as an amendment to the federal surface mining legislation (H.R. 25).

Montana Shoreland Protection Act (H.B. 153) -

Disposition

Postponed indefinitely in Senate.

Summary

Would establish policy, make plans, and require counties to adopt shoreland zoning permit regulations to protect ponds, lakes, and reservoirs and lands under, abutting or lying close thereto; would control building sites, placement of structures, and land uses; would identify "environmentally critical shoreland areas" with important agricultural, esthetic, cultural or historical values.

Administrative Agency

Board and Department of Natural Resources and Conservation.

Permit Requirements

Counties would be responsible for zoning all environmentally critical shoreland areas and for establishing a permit system for unincorporated areas within 500 feet of the normal low-water elevation. If the county did not act, the state would act for it.

Enforcement

The Department of Natural Resources would establish minimum standards, regulations and guidelines, including criteria for building setbacks, preservation of shore cover, conservancy uses for lowlying lands, and regulation of siting and construction of structures. Possible effects on coal lands abutting or lying close to ponds, lakes, and reservoirs are obvious.

Pollution Disclosure Act of 1975 (H.B. 186) -

Disposition

Died in committee.

Summary

Would establish a systematic program of self-monitoring and self-disclosure by any industry which emits, discharges, or disposes of potentially critical materials which are defined as those materials which have a substantial potential to adversely affect a quality of the environment.

Administering Agency

Department of Health and Environmental Sciences.

Requirements

Any person conducting any industrial or commercial process to discharge any critical materials into the water or air of the state would have to file a report at least annually setting forth detailed information on discharges, emissions, or disposals including: (1) the nature of the course of the discharge; (2) a list of the materials used in industrial operations; and (3) the estimated annual total gallons of liquid, gaseous or solid waste, and levels, concentrations, or quantities of emissions of air pollutants and discharges of water pollutants anticipated. Also required would be the measured or calculated annual and average daily gallons or pounds of liquid, gaseous, or solid waste, and the levels, concentrations, or quantities of air pollution emissions and water pollutant discharges. The Department of Health and Environmental Sciences would be permitted to enter any of the premises of an industrial operation and examine any aspect of the operation and have access to any records to documents.

Enforcement and Penalties

Violators would be enjoined from operation and would be considered guilty to a misdemeanor subject to a fine of not more than \$1,000.

(Amending) The Montana Surface Mining and Reclamation Act to Include Additional Permit Requirements (Amending Sections 50-1039, R.C.M. 1947) (H.B. 379) -

Disposition

Died in committee.

Summary

In addition to the numerous permit requirements imposed upon a proposed strip mining operation, this would add a requirement that the applicant offer proof that: a reliable market exists for the coal; energy conservation measures would be instituted in the market area; adverse social and economic effects of marketing

the coal on existing mining operations in the United States would be insubstantial or mitigated; and that "every feasible effort has been made to analyze and mitigate any disruptive social and economic impacts in the geographical area of the mining activities." The applicant would also be required to show that federal and state environmental standards in the states in which the coal was to be utilized would not be violated.

Comment

This is an example of legislation which, if enacted, would work to eliminate surface mining of coal altogether. Such a burden of proof would be impossible to meet.

(Amending) The Strip Mine Siting Act to Require Proof of National Need (Amending Sections 50-1607 and 50-1608, R.C.M. 1947) (H.B. 380) -

Disposition

Died in committee.

Summary

In addition to numerous other requirements, an operator desiring a mine site location permit would have to include in the application "decisive proof that there is a compelling national necessity, consistent with current environmental statutes, rules, policies, plans, and standards that the coal was mined for use within the United States." The permit would be denied unless this requirement could be fully satisfied "at the burden of the mining applicant."

Administering Agency

Department of Natural Resources and Conservation.

Comment

As with H.B. 379 above, Representative Dorothy Bradley, a well-known environmentalist, was the principal sponsor of this bill. Both bills were also sponsored by Representative Kimball, Huennekens, and Meloy. Proving "national necessity" probably would be an impossible burden for the applicant to bear.

Revising the Penalty Provisions of the Montana Strip Mining and Reclamation Act (Amending Sections 50-1050 and 50-1056, R.C.M. 1947) (H.B. 664) -

Disposition

Killed in Senate on third reading.

Summary

Would prohibit the issuance of a mining or mine site location permit to an operator who had repeatedly been in noncompliance or violation, defined as two or more "willful" noncompliances or violations within a three-year period. Civil penalties would be adjusted downward from a minimum of \$250 to \$100 and from a maximum of \$2,500 to \$1,000. Penalties for willful violators would be raised from a minimum of \$500 to \$1,000 and from a maximum of \$5,000 to \$10,000 for each day of violation.

(Amending) The Utility Siting Act to Provide for Public Debate (Section 70-803, 70-806, 70-807, R.C.M. 1947) (H.B. 280) -

Disposition

Killed in Senate committee.

Summary

Would assure opportunity for "public debates," defined as the presentation of views by at least two recognized non-agreeing parties through radio, television, newspaper, or other medium on applications for industrial facilities.

Administering Agency

Board and Department of Natural Resources and Conservation.

Requirements for Certification

An applicant for certification would have to stipulate in the application that public debates and post-application advertising would be carried out and that representatives of opposing interests would have an opportunity to engage in public debate. Any advertising by the applicant promoting the facility would be prohibited unless the time or space, to be paid for completely by the applicant, was divided equally between the applicant and at least one opponent.

Providing for a Severance Tax on Coal and Revising the Taxation of Coal Production (H.B. 115) -

Disposition

Referred to conference committee.

Summary

Would provide for severance taxes on coal production to remain a constant percentage of the price of the coal as a revision to "simplify" the structure of coal taxation in Montana; would

impose a severance tax on each ton of coal produced in the state in accord with a formula which would consider heating quality (Btu rating) and whether the coal was produced from a surface or an underground mine.

Administering Agency

Department of Revenue; State Bureau of Mines and Geology to test coal production.

Requirements

This legislation would not establish another permit system. It would require coal mining operators to file an annual statement with the Department of Revenue of the gross yield from each coal mine owned or operated and the value thereof. Other information to be included in the statement would be detailed in the legislation. The State Bureau of Mines and Geology would be empowered to test coal production and promulgate rules governing the collection of test data.

Penalties

The failure, neglect, or refusal to file a statement on mine production would be classified as a misdemeanor and subject to a fine of \$1,000, imprisonment for six months, or both.

Bills Affecting Surface Mining

Wild, Scenic, and Recreational River Areas Act (H.B. 59) -

Disposition

Passed the House; killed in the Senate.

Summary

Would preserve designated freeflowing rivers from certain dams and reservoirs as well as certain highways, structures or channel modification where such river and adjacent lands are deemed to have an agricultural, water conservation, scenic, fish, wildlife, historic, or recreation value.

Administering Agency

Board and Department of Natural Resources and Conservation.

Effects on Surface Mining

Areas deemed to have the values set forth above would include lands adjacent to "free-flowing rivers of sufficient width to preserve the natural character of such areas up to and including

any lands within 1,000 feet of the "normal water lines" of the river. While some development would be allowed in "recreational river areas" as opposed to "wild river" or "scenic river" areas, development in all classified areas could be rigidly controlled. It is possible that this would eliminate surface mining completely from some Montana river valleys. This bill does not involve any kind of permit system.

Adding Certain Pipe Lines and Railroad Tracks to Facilities Regulated Under the Utility Siting Act (Amending Section 70-803, R.C.M. 1974) (H.B. 62) -

Disposition

Postponed indefinitely in Senate.

Summary

This would add major electric generating stations, coal gasification plants, and coal liquefaction plants, along with associated facilities, to those types of energy developments being regulated under the Utility Siting Act. It would also include certain electric transmission lines. Specifically included would be railroad tracks more than 30 miles in length which are not within the purview of the Strip Mine Siting Act.

Effects on Surface Mining

While many regulations of coal-fueled energy facilities effect the extent of surface mining, surface miners will necessarily be more concerned with the Strip Mine Siting Act than with some aspects of the Utility Siting Act. Mining operations which export coal to major customers long distances could be affected by the railroad track inclusion although this will require some legislative interpretation.

Making The Public Interest a Criteria for Issuance of Certain Permits to Appropriate Water (Amending Section 89-885, R.C.M. 1947) (H.B. 491) -

Disposition

Killed in Senate committee.

Summary

This would provide that applicants for issuance of water appropriation permits involving the use of at least 10,000 acre-feet per year would have to show that the proposed use was in the

"public interest." To determine the "public interest," the Department of Natural Resources and Conservation would consider these criteria: effects on economic activity; effects on fish, wildlife, recreation; and, the effect of the loss of alternative uses of water.

Effect on Surface Mining

Even though many surface mining operations would not use 10,000 acre-feet of water per year or more, some surface mining could be curtailed if such legislation imposed a prohibition on energy conversion facilities in Montana utilizing the surface-mined product.

Restricting the Construction of New Utilities Facilities to Those Providing Energy for the Citizens of Montana (Amending Section 70-802 and 70-803, R.C.M. 1947, The Utilities Siting Act) (H.B. 511) -

Disposition

Died in committee.

Summary

This amendment to the Utilities Siting Act would prohibit any power or energy conversion facility from being constructed or operated within the state without a showing that a significant proportion of the design capacity would not be exported out of the state except on an occasional or emergency basis. The energy product would have to be used primarily within the State of Montana.

Effect on Surface Mining

Restricting energy use to Montana could severely curtail surface mining operations depending on energy producing facilities which export a significant proportion of their design capacity out of the state. This would result in a severe curtailment of coal conversion facilities.

Declaring that State Lands be Managed to Yield a Broad Range of Monetary and Nonmonetary Benefits to Present and Future Generations of Montanians (Amending Section 81-103 and 81-2401, R.C.M. 1947) (H.B. 600) -

Disposition

Postponed indefinitely in Senate.

Summary

This amendment would provide that state lands are to be held in trust for the people of Montana and that they must

be administered consistent with the policies and regulations of the state including those concerned with environmental quality. The amendment would allow only "legitimate" development of state lands so as to benefit both the economy and the environment. State lands would not only be managed to secure reasonable financing return but also "to attain other worthy objects."

Effect on Surface Mining

Such a policy, if rigorously enforced, might give low priority to surface coal mining as a use of public lands. Such legislation might also provide a legal cause of action for surface mining opponents.

Requiring Owners of Land Bordering Navigable Waters to Obtain a Permit to Build Docks and Wharves (Amending Sections A9-601 and A9-603, R.C.M. 1947; and Repealing Section 89-605, R.C.M. 1947) (H.B. 665) -

Disposition

Killed in Senate committee.

Summary

Would require a permit to build docks and wharves on navigable waters from the Department of Natural Resources and Conservation which could establish rules for such a permit system. The Department would have the authority to revoke such a permit any time.

Effect on Surface Mining

Applicable to surface mining operations only if storage or other facilities are required to be constructed over, across, or upon "lands under water." Overall, the effect would be inconsequential.

Providing for a Suspension of Action on Siting Applications Pending Development of Comprehensive Energy Policies (H.B. 667) -

Disposition

Killed in the House.

Summary

This is one of several bills introduced that would result in a moratorium on energy development. Action on certain siting applications (including strip mine siting) would be suspended

pending the adoption of comprehensive, long-term national energy policies in addition to development of a state policy to substantially reduce the state's reliance on fossil fuels.

Administering Agency

Department of State Lands.

Comment

This bill, which was killed on second reading in the House, is similar in many respects to H.B. 453 which was signed by the Governor and which provides for the suspension of action on applications for certain certificates of environmental compatibility and public need pending formulation of a comprehensive Montana energy policy and plan. The legislation specifically restrains energy conversion facility siting.

Establishing Statewide Growth Policies and Identifying Areas of Critical State Concern and Providing for the Promotion of Coordinated Statewide Land and Resource Conservation and Development (H.B. 675) -

Disposition

Killed on third reading in House.

Summary

Would establish a process for obtaining information that could be translated into growth policies and guidelines; establish a Montana Growth Policy Commission; conduct a statewide land and water resources inventory; establish criteria for growth policy formulation, including quality of life, resource development, industrial development, conversion of land from agricultural uses, development of alternative energy sources, and maintenance of the agricultural base; determine that local planning and land use control regulations comply with state growth policy; and provide for designation of areas of critical state concern. In substance, this bill would be a comprehensive and far-reaching land use and growth policy act.

Administering Agency

Montana Growth Policy Commission.

Effect on Surface Mining

Although surface mining would not be specifically addressed in the proposed legislation, it would be directly affected by a statewide growth policy, and the designation of areas of critical state concern. It would also be affected by a stronger state

land use planning role and a lessening of local government self-determination.

Special Comment

A unique characteristic of the bill is that the legislature would have to consider the implementation of a program for compensation to owners of lands within the state for the value they might lose resulting from imposition of "any zoning, subdivision, or other ordinance regulating or restricting the use of such lands." Possible sources of such compensation are not identified.

Requesting a Study of the Feasibility of Programs by which Montana Might Preserve and Protect Prime Agricultural and Recreational Lands (H.J.R. 17) -

Disposition

Died in Senate Rule Committee.

Summary

Would enable a study of the feasibility of classifying prime agricultural and recreational lands "for their relative importance to retaining the essential character of Montana" and to consider programs for maintaining traditional agricultural or recreational uses.

Effect on Surface Mining

Obvious.

Relating to the Strip Coal Mines License Tax (Amending Section 84-1302, 84-1303, 84-1306, and 84-1308, R.C.M. 1947, in repealing Section 84-1309) (S.B. 144) -

Disposition

Died in the House Taxation Committee.

Summary

A strip coal mines license tax has been imposed in Montana since 1921. This act would amend the existing legislation by empowering the State Department of Revenue to impose a 10 percent penalty on delinquent taxes. The bill would also provide that all tax, penalty, and interest due be a lien upon any and all real property and the person or company owing the tax.

Authorization of Citizens to Complain About Environmental Degradation and to seek Judicial Relief (S.B. 203) -

Disposition

Vetoed by the Governor.

Summary

Would allow any individual, group, association, corporation, trust, administrative agency, or other "person" to intervene in administrative proceedings where damage to the environment might be at issue and to have standing to maintain an action in District Court. The bill would also authorize "class actions" in addition to "citizen suits."

Effect on Surface Mining

Any citizen could seek administrative or judicial relief by alleging "damage to the environment" which would include air pollution, water pollution, noise, damage or impairment of rivers, damage to water resources, etc. Surface mining proposals would be one of the more obvious targets.

NEW MEXICO

A very small number of bills were introduced in the 1975 session of the New Mexico Legislature that would directly, or even indirectly, affect surface mining. A few bills were passed that might be said to have a "tertiary" affect on surface mining. The only really significant bills introduced were the Environmental Quality Act (H.B. 148), new and indirect source amendments to the Air Quality Control Act (H.B. 227), and certain amendments to the Water Quality Control Act (H.B. 429). A few other bills are analyzed herein which could be interpreted to "affect" surface mining. However, none of the bills with any real impact potential on coal surface mining passed.

Bills Requiring Permits, Licenses, Certifications and Certain Information

Environmental Quality Act (H.B. 148) -

Disposition

Failed in the House.

Summary

The proposed Environmental Quality Act of 1975 would have been a replacement for an earlier Environmental Quality Act which was repealed. It would have been part of the growing trend to enact "little NEPA's". The bill would establish a Council on Environmental Quality, impose certain additional environmental quality duties on state agencies, require state agencies to file environmental impact statements or negative declarations, and otherwise follow the overall pattern of the National Environmental Policy Act. Unlike the proposed Colorado legislation, private actions would not be included unless, of course, they required a state permit, license, certification, or other "major state action". Also, unlike a number of other "little NEPA's", a number of criteria would be set forth to determine whether or not the action is "major". Criteria would also be established to help determine whether or not a major action would have a "significant effect" on the quality of the human environment. An environmental statement prepared pursuant to the requirements of NEPA could be used to satisfy the impact statement requirements. A "reasonable fee" could be imposed upon an applicant for an agency action requiring an impact statement. If the Council on Environmental Quality found that the impact statement indicated "a major adverse change in the environment or conflicts concerning alternative uses of available natural resources" it would present the finding to the Governor for review and a final decision on the appropriate action. Citizen suits would be provided for.

(Amending) The Air Quality Control Act (Amending Section 12-14-2, N.M.S.A. 1953 (H.B. 227) -

Disposition

Died on adjournment.

Summary

The bill would define "source" as any "building, structure, facility, project of construction, installation or series of installations which directly or indirectly result or may result in the emission or any air contaminant." An application for a permit would be deemed to have been filed only after the Environmental Improvement Agency or other appropriate administrative agency had received from the applicant all the information requested to be filed with the application. The "new source" legislation and consequent regulations would apply to any source and not merely stationary sources.

(Amending) The Water Quality Act (Amending Section 75-39-2, N.M.S.A. 1953 (H.B. 429) -

Disposition

Did not pass.

Summary

The primary thrust of the proposed amendments was to obtain approval from the Federal Environmental Protection Agency to administer the National Pollutant Discharge Elimination System (NPDES) permit program of the Federal Water Pollution Control Act. It also proposed certain amendments with respect to variances from any regulation of the Water Quality Control Commission. The specific conditions under which a variance could be granted would be spelled out in the act. (It is beyond the scope of this analysis to detail the permit requirements of the extremely complex NPDES permit system.) Stringent penalties would also be imposed.

Bills Affecting Surface Mining

Natural Resource Research and Development Act (H.B. 16) -

Disposition

Died on adjournment.

Summary

The purpose of the act would be to provide for wise research and development of natural resources including developing recovery

techniques for existing fossil fuel reserves, research and development of natural resources including fossil fuels, and research and development of techniques for the extraction and use of natural resources so that the effect upon the natural environment and the use of energy involved would be minimized.

Land Information System Act (S.B. 158) -

Disposition

Died on adjournment.

Summary

This act would create a New Mexico land management system for the purpose of providing state and local government and the private sector with comprehensive, useable information describing natural resources, ecological characteristics, demographic information, land use and ownership patterns, and other information pertaining to land-related resources. There would be created within the Natural Resource Conservation Commission a Division of Land Information Services and a Land Information System Advisory Committee.

Effect on Surface Mining

The creation of such a system would have a positive effect in that it would expedite information collection for the purpose of preparing environmental analyses and would thereby tend to decrease the cost of environmental impact statements. It would also be useable in other respects.

Planning and Conservation Act (S.B. 225) -

Disposition

Did not pass.

Summary

Apparently, this act was intended to comply with and implement the National Land Use Policy Act ("The Jackson Bill") which did not pass the Congress. The purpose would be to establish certain goals with respect to the conservation and beneficial use of land, provide for a planning process for state and local government, develop systematic methods for the acquisition and analysis of data, and provide financial assistance to local governments. A number of planning goals, some of which would be inconsistent with surface mining goals, would be outlined in the legislation. Elements of the "planning process" would also be detailed. Restrictions on development, including suspension of the development, would apply to "significant resource areas", defined as: fragile

or historic lands; natural hazard lands; renewable resource lands; non-renewable resource lands; and areas significantly effected by or having a significant effect upon an existing or proposed key facility. A permit system would be established for such areas.

Comment

This is what was proposed as a comprehensive land use bill with some of the characteristics of H.B. 1041, passed by the Colorado Legislature in 1974, and directed particularly at the Jackson Bill. It is notable that there was only one sponsor.

NORTH DAKOTA

The current trend of the North Dakota Legislature in dealing with surface mining of coal and reclamation began in 1969 when the Forty-first Legislature passed a reclamation act (S.B. 2095). Since then, the Legislature has created a Reclamation Division in the Public Service Commission (1973) and in 1975 it made the Commission the administrator of Energy Conversion Plant Siting and Transmission Facility Siting (S.B. 2050).

The 1975 Legislature passed the following legislation which significantly affects surface mining of coal and reclamation: the duties of a mine operator in reclaiming land are set out in S.B. 2095; H.B. 1062 requires written notice and approval from surface owners before a permit to strip mine is issued; any person aggrieved by a violation of an environmental law, rule or regulation may bring suit to compel enforcement of that law (H.B. 1059); persons proposing to dispose of certain solid wastes are required to submit a plan of disposition (H.B. 1056); a flat-rate coal severance tax of fifty cents per ton is in effect (S.B. 2031). The following bills were introduced in the 1975 legislature. Although not passed, some are expected to be reconsidered in the next session in a modified form.

Bills Requiring Permits, Licenses, Certifications, and Certain Information

Control of Soil Erosion and Sediment Damage Resulting From Land-Disturbing Activities (S.B. 2308) -

Disposition

Posponed indefinitely.

Summary

Would require the filing and approval of plans for the control of soil erosion and sediment damage in connection with land-disturbing activities.

Administering Agency

On the state level, the State Soil Conservation Committee; on the local level, the Soil Conservation District.

Requirements for Surface Mining

Prior to engaging in any land-disturbing activity, a soil erosion and sediment control plan would have to be approved by the District or the Committee. No agency would be authorized to issue grading, building, or other permits for activities involving

land-disturbing activities unless the permit application included a soil erosion and sediment control plan approved by the District or the Committee.

Contents of the Plan

Would have to comply with conservation standards of the District and the Committee guidelines.

Scenic Easements Upon Land Adjacent to Certain State Property (S.B. 2198) -

Disposition

Postponed indefinitely.

Summary

Would regulate outdoor advertising devices, buildings, and other structures located on lands adjacent to and within 200 yards of any state park which would detract from the recreational, historical, or esthetic qualities of a park, recreation area, campground, or reserve.

Administering Agency

Director of State Parks.

Permit Requirements

No commercial, business, or industrial building could be erected upon scenic easement lands without first obtaining a permit from the Director of State Parks.

Application Requirements

Information required would be that deemed necessary by the director consistent with the Act and with rules and regulations promulgated by him.

Obtaining a Permit to Strip Mine Land (Amending Section 38-14-04, N.D.C.C. (1973 Supp.)) (S.B. 2135) -

Disposition

Postponed indefinitely.

Summary

There would be no new strip mining permits issued nor would existing permits be amended to cover additional land after

January 1, 1976. Permits with time remaining would be allowed to run until their expiration date, but could not be extended.

Administering Agency

Public Service Commission.

Coordination of Some Problems Surrounding Operations for Supplying Energy (H.B. 1248) -

Disposition

Postponed indefinitely.

Summary

Would require the submission of plans for operations relating to the supply of coal and other supplies of energy; would require the periodic filing of reports and information surrounding such operations.

Administering Agency

North Dakota Public Service Commission.

Requirements

An energy distributor, defined as one who sells or otherwise distributes coal, would be required to file with the Commission an initial information statement plus an annual and other periodic or special reports. Such reports would include: forecasts of demand for coal; identification of general capacity to be utilized in meeting demand; inventory of major facilities; and any other additional information required by the Commission. The Commission could also require information related to sources of supply, firm commitments, projected demand, price changes from the supplier, and price maintenance practices by the supplier. The Commission would be given the authority to inspect the premises of every supplier. The Act would provide for civil penalties for failure to provide information and penalties for violation of rules or orders of the Commission.

Under the Act, the Governor could proclaim a state of emergency during severe energy shortage and designate the Commission as the Emergency Energy Coordination Agency authorized to do as follows: (1) direct that energy resources, including coal, be furnished for human needs; and (2) direct that certain uses of energy be curtailed.

Bills Affecting Surface Mining

Duties of a Surface Mine Operator (Amending Subsection (8) of Section 38-14-05 (S.B. 2352) -

Disposition

Postponed indefinitely.

Summary

Would set out new duties of surface mine operators.

Effects on Surface Mining

Mine reclamation plans and approval thereof would be based upon the advice and technical assistance of various state agencies such as the State Soil Conservation Committee, Game and Fish Department, State Forester, and others having experience in re-foresting and reclaiming surface mined lands. Also, owners of the land could indicate preference for a specific reclamation plan. In the case of state-owned land, the plan would have to provide that fifty percent of the total state-owned mined land be reclaimed to provide areas suitable for habitation and propagation of wildlife except where directly conflicting with surrounding land uses.

Act to Create a State Department of Health and Environment from Existing Divisions and Offices of the Health Department (S.B. 2283) -

Disposition

Postponed indefinitely.

Summary

Creates the State Department of Health and Environment from the existing divisions and offices of the Health Department. Creates the Division of Environment.

Administering Agency

State Department of Health and Environment and the State Health and Environment Council.

Effects on Surface Mining

The Council would be mandated to establish rules and regulations necessary to prevent and minimize the effects of noise resulting from construction equipment, motor-powered vehicles, or other devices and activities. The Act would designate the State Department of Health and Environment as the agency to administer

and coordinate a statewide program on air pollution control. It would establish an air pollution control advisory council. There would be established a State Water Pollution Control Board.

Mineral Interests Which Have Been Severed from the Surface be Filed for Record (S.B. 2084) -

Disposition

Postponed indefinitely.

Summary

Would establish a method whereby mineral interests which have been severed from the surface estate would be readily identifiable and clarified for purposes of development and taxation.

Effect on Surface Mining

Every owner of a fee simple interest in minerals which is owned separately from the fee title to the surface of the property, referred to as "severed mineral interests", would record the instrument of conveyance or reservation in the office of the Register of Deeds in the county in which the severed mineral interest was located. If not filed in the appropriate manner and place, the mineral interest would be forfeited to the state.

North Dakota Coal Lease Disclosure Act (S.B. 2485) -

Disposition

Postponed indefinitely.

Summary

Would set up a system whereby coal lease provisions would be clearly disclosed to the lessor.

Effects on Surface Mining

A coal lease could be cancelled by the lessor within 30 days from the date of execution of the lease if the lessor had not been furnished with a proper disclosure statement. The disclosure statement would set forth the following: amount of bonus; time of payment of royalty; amount of royalty in terms of the lease; and renewal terms along with other provisions.

Environmental Policy Act ("Little NEPA") (H.B. 1058) -

Disposition

Passed both houses but reconsidered in the Senate at request of Appropriations Committee Chairman. The Committee recommended

that the bill be killed and the full Senate concurred.

Summary

Would establish requirements for preparing and distributing environmental impact statements by state agencies.

Administering Agency

Department of Health.

Effect on Surface Mining

All state agencies would be required to prepare an environmental statement for every project (all surface coal mining operations) that could foreseeably have a significant adverse effect upon the natural environment. The statement would reflect the following: (1) the impact of the proposed project on the natural environment; (2) the adverse environmental effects that cannot be avoided if the proposed project is implemented; and (3) feasible alternatives to the proposed project which would minimize the environmental impact. Agencies would also be required to prepare draft environmental impact statements as early as possible in the formulation of a proposal or plan for a project.

(Note: Projects which were subject to the National Environmental Policy Act would be exempt from the state act. Also, applications for a discharge permit under the North Dakota Water Pollution Control Act or an omission permit under the North Dakota Air Pollution Control Act would also be exempt. The act would allow any state resident to bring an action in District Court compelling an agency to comply with the Act.)

Limitation on the Acreage Which Would Be Surface Mined in Any Year
H.B. 1513) -

Disposition

Postponed indefinitely.

Summary

This Act would provide a new section, Section 38-14-04.2, to the North Dakota Century Code. The bill in its entirety reads as follows: "LIMITATION. The Commission shall not authorize an increase in the total acreage under permit of more than 30% from the preceding calendar year."

Assessment of Mineral Interests in Coal Under Lease (Amending
Section 57-02-24 and Section 57-02-25, N.D.C.C. (Supp. 1973)
(H.B. 1613) -

Disposition

Second reading, failed to pass.

Summary

A tax on mineral interests in coal under lease would be imposed on the lessee.

Effect on Surface Mining

A lessee of an interest in minerals on or under the lands of another would be assessed and taxed for the value of such property, taking into account, in determining the value, the royalty interest of the lessor.

UTAH

In comparison to neighboring Rocky Mountain states, the 1975 Utah Legislature considered even fewer bills than New Mexico that would directly or indirectly affect surface mining of coal. However, there were three significant bills enacted: The Mine Land Reclamation Act (H.B. 323), Amendments to the Air Pollution Control Act (S.B. 84), and the Resource Development Act (S.B. 256).

Bills Requiring Permits, Licenses, Certifications and Certain InformationUtah Industrial Location Act (H.B. 232) -Disposition

Defeated in committee.

Summary

Would require that a permit be obtained from the Board of Industrial Promotion prior to construction of a new major facility. A major facility would be defined as one which poses such potential adverse impacts on the human environment that an environmental evaluation would be required and one which falls within the regulatory jurisdiction of the Industrial Promotion Board. Surface mining would come under the jurisdiction of the Act in two respects: (1) by requiring substantial transportation systems for raw materials; and (2) by occupying or removing large tracts of state surface land or threatening to disturb surface areas in a manner that reclamation would be necessary.

Administering Agency

Board of Industrial Promotion

Permit Requirements

A permit application would have to be submitted six months prior to anticipated commencement of construction. In general, the application would have to include the following:

- a) Basic information about the applicant
- b) Description of location and facility
- c) Major area environmentally impacted
- d) Preliminary environmental assessment of the proposed project

- e) Proposals to minimize adverse impact, details on alternative sites and reasons for choosing the present site
- f) Statement describing present and expected use of adjacent lands
- g) Any other information the applicant or the Board considered relevant

A fee of \$1,000 plus what the Board estimated as cost for further studies would be submitted. In evaluating the application, the Board would base its evaluation on the following six requirements:

- a) Identification and evaluation of environmental impacts
- b) Evaluation of prospects for mitigation, enhancement, and rehabilitation
- c) Explanation of unavoidable environmental effects
- d) Identification of irreversible or irretrievable commitments of resources
- e) Evaluation of local short-term uses of environment vs. long-term productivity
- f) Explanation of alternative sites

Additionally, the Board, in evaluating the proposed projects' effects, would have to consider a number of factors under two major categories: (1) biological and physical, and (2) social and cultural.

Unless the following are established, the permit would not be issued:

- a) The facility must represent the minimum adverse environmental impact
- b) When considering environmental and economic values, the advantages must outweigh the disadvantages
- c) The developer has the financial capacity and proven technical ability
- d) The facility conforms to statewide growth policies and
- e) The location of the facility conforms to state and local laws, regulations and policies.

The applicant would also have to submit an affidavit agreeing to comply with the requirements of the Act. He would be required to obtain a performance bond.

Bills Affecting Surface Mining

Water Pollution Amendments (Amending the State Water Pollution Control Act, Section 73-14-1 et seq.) (S.B. 80 LU 1973) -

Disposition

Lost in third reading.

Summary

Would increase the requirements to be met upon discharge of pollutants into waters; would provide increased penalties; and would alter certain appeal procedures. The effects of the new provisions would only indirectly affect surface mining.

WYOMING

The 1975 Wyoming Legislature considered many bills that significantly effect surface mining coal and mined land reclamation. Some of these bills were enacted while others were narrowly defeated and are expected to be seen again next year in a modified form. A "hot issue" before the Legislature dealt with a proposed state policy to export coal rather than converting it to energy in Wyoming.

Several highly significant bills were passed. Such action is indicative of what to expect in the future. The "Industrial Development Information and Siting Act" (House Enrolled Act No. 108) regulates all energy conversion facilities, uranium enrichment plants, and industrial facilities with construction costs greater than \$50 million dollars. Amendments to the Environmental Quality Act (Senate File No. 68) allows ranchers and farmers to refuse stripmining of coal beneath their land. Mining companies must disclose the source and quantity of water they will use. A mining permit is required before constructing buildings. Also required is a detailed timetable for reclamation. Other major bills passed were a Land Use Planning Act (H.B. 321) and mineral taxation bills adding an additional severance tax on coal.

The bills discussed below were not passed but are likely to be seen again next session.

Bills Requiring Permits, Licenses, Certifications, and Certain InformationWyoming Mining Operations Act (H.B. 205) -Disposition

Not available.

Summary

The regulation of coal mines and other mines would be placed under the same statute. It would abolish the coal mine examining board and transfer its duties to the Board of Mines. It would provide that safety standards be set by regulation rather than statute. The major purpose of the act would be to establish uniform standards for mining operations.

Administering Agency

An "inspector of mines" would be appointed by the Governor. His responsibilities would be to supervise the inspection of all mining operations within the state. Coal mining operations would be inspected every two months.

The bill would establish a Board of Mines consisting of twelve members. The Board's major responsibilities would be to establish rules and regulations governing mining operations. No authority would be given to the State Department of Environmental Quality under the bill.

Requirements of Mine Operations

A mine operator would be required to notify the mine inspector's office of any accident that caused a fatality or serious injury. The inspector of mines would have to be notified thirty days before any intentional abandonment or closing down of a mining operation. Mine operators employing five or more individuals would have to submit an annual report to the inspector of mines before January 31 of each year. Also, the inspector of mines would have to be notified of any change in ownership or operation of a mine.

Penalty

A violation of any of the provisions of the bill or any of the rules and regulations resulting therefrom would constitute a misdemeanor punishable by a fine of not less than \$10 nor more than \$100 and/or imprisonment in a county jail for a period of not more than six months.

Protection of Stream Channels (S.F. 47) -

Disposition

Died on Senate General File.

Summary

Would protect stream channels and require a permit prior to the alterations of such channels.

Administering Agency

State Engineer.

Permit Requirements

Any person proposing to alter a stream channel would have to receive a permit from the State Engineer. The application would have to be submitted not less than 60 days prior to construction. The permit could be rejected on the grounds that the alteration would be detrimental to fish and wildlife habitat, aquatic life, recreation, esthetic beauty, water quality or would erode the stream channel.

Penalties

A violation of the act or any permit condition would constitute a misdemeanor and would be punishable by a fine of not more than \$500. The State Engineer could also seek a temporary injunction and could require that the stream be restored to near its original condition.

Water Application Approvals (H.B. 170) -Disposition

Passed House and died in Senate Committee.

Summary

Would require that applications for an amendment to a water appropriation be approved by the State Board of Control before being approved by the State Engineer.

Effect on Surface Mining

An appropriation application in excess of 5 cfs or 5000 acre-feet of storage, or any amendment thereto, would first be submitted to the State Board of Control for approval prior to being approved by the State Engineer.

Facility Siting - Environment (H.B. 387) -Disposition

Died in House Committee.

Summary

Would require the obtaining of a certificate of approval prior to the construction of any facility which when operable would result in emissions or discharges. "Facility" would mean any energy generating or producing plant and any major industrial facility as provided by rules and regulations of the Council. The issuing state agency would be required to prepare an environmental impact statement relative to the action or the certificate.

Administering Agency

The bill refers to a council, a director and a department, none of which are defined.

Certificate Requirements

A certificate of approval would have to be obtained prior to commencement of construction of a facility which would, if

operating, result in emissions or discharges. In addition to routine general information, the application would contain the following: estimated construction costs; copies of any studies which have been made on the environmental impact; inventory of estimated discharges; inventory of estimated emissions and proposed methods of control; inventory of estimated solid wastes and proposed disposal program; procedures proposed to avoid environmental impact; and any other relevant information required by the Director. A fee would be required not to exceed 1 percent of the estimated construction costs of the facility up to \$5 million plus a percentage of the construction costs over that figure. In reviewing the application, an environmental impact statement would be prepared relative to whether or not a certificate should be granted.

Bills Affecting Surface Mining

Consumption of Energy in Wyoming (H.B. 457) -

Disposition

Passed House amended; died on Senate General File.

Summary

Before a permit could be issued for construction of an energy facility, the Plant Siting Council would decide whether or not 25 percent of the production of that facility would be consumed in Wyoming.

(Note: This bill is directed only at facilities for conversion of energy so it would only indirectly affect a coal surface mining operation.)

Wyoming River Protection System (S.F. 46) -

Disposition

Died on Senate General File.

Summary

Would establish a Wyoming River Protection System classifying certain rivers into three categories: primitive, scenic, and recreational. Depending upon the classification, certain restrictions on use of the river and surrounding the river could be imposed, e.g., maintaining minimum stream flow, constructing roads or railroads parallel to the river, and modifying construction of bridges and other crossings.

Administering Agency

Wyoming River Protection Council and River Protection.

Effect on Surface Mining

Further appropriations of water from classified rivers could be restricted. Construction of facilities or transport corridors adjoining a classified river would be restricted.

Regional Planning Commission (H.B. 410) -

Disposition

Unknown.

Summary

Cities and counties could join together to form a regional planning commission. One of its functions would be to make and adopt a regional plan for the physical development of the region.

Effect on Surface Mining

Any surface mining operation would have to comply with the regional plan.

Wyoming Energy and Conservation Act (H.B. 54) -

Disposition

Died in House Committee.

Summary

Would assess trends in the consumption of energy and analyze the social, economic, and environmental consequences of these trends.

Administering Agency

Council for Energy Conservation and Development.

Effect on Surface Mining

The Council would be mandated to collect information with respect to forecasts of future supplies and consumption of all forms of energy. Information on future energy or fuel production and transporting facilities would be obtained from industry. The Council, in its report to the Governor, would be required to assess energy resources available to the state along with the demand.

(Note: The bill contains an interesting section:

CERTIFICATION OF FACILITIES

Within four (4) months after date of certification of any new facility, the Council shall review and revise the recommended plans based on additional new capacity attributed to any such facility. The Council shall, after one (1) or more public hearings, review the plans at least every five (5) years from the approval of the initial plan.

Policy to Favor Shipment of Coal Out of State and Discourage In-State Conversion (H.J.R. 22) -

Disposition

Failed to pass.

Summary

This joint resolution, which had sixteen sponsors, would establish that it would be the policy of the State of Wyoming to "discourage additional conversion of coal to other forms of energy. . . . for the benefit of energy consumers located elsewhere and to favor the shipment of coal out of the state." This policy would have been enacted to avoid "an unwarranted transfer of harmful impacts from the more densely populated areas of the United States to Wyoming" and to protect water and air resources.

Effect on Surface Coal Mining

An export policy could work to curtail coal surface mining since transportation cost to out-of-state conversion facilities would in some cases be prohibitive.

Underground Water ("Pure Water Act") (H.B. 435) -

Disposition

Died in House Committee.

Summary

Underground water containing less than 500 ppm of dissolved solids would be restricted to domestic, stock watering, municipal or agricultural uses. In other words, water of such purity would not be allowed to be used for industrial purposes such as surface mining.

Effect on Surface Mining

Obvious when applied to new permits for the withdrawal of underground water.

Bills Seeking Repeal of the "Slurry Pipeline Law" (S.F. 2, S.F. 21, and S.J.R. - no number) -

Disposition

S.F. 2, Killed in Senate Committee as a whole.

S.F. 21, Died in Senate Judiciary Committee.

S.J.R. (no number), not passed.

Summary

Would repeal the legislative approval of the proposed appropriation of underground water by Energy Transportation Systems, Inc., and amend the section regarding applications for use of water outside the state. Would also repeal the "Slurry Pipeline Law" section which approved the use of underground water outside the state by the Energy Transportation Systems, Inc. A Senate Joint Resolution (unnumbered) requests the Governor to conduct appropriate legal research and court proceedings regarding the constitutional validity of the contract between the State of Wyoming and Energy Transportation Systems, Inc., as set out in the Slurry Pipeline Law.

Effect on Surface Mining

The above bills, if enacted, would indirectly affect the marketability of coal sold outside the State of Wyoming and transported via the slurry pipeline.

APPENDIX I

EASTERN STATE TRENDS IN LEGISLATIONAFFECTING SURFACE MINING OF COALOVERVIEW

Two states were chosen to typify legislative activities in the eastern states. Ohio had very little legislation passed or introduced in the 1975 General Assembly, which may be indicative of either a pro-development attitude or of effective existing regulation. The reader may refer to state comparisons in Section 8.4 to make his own judgement of the status of Ohio's regulations.

West Virginia is obviously continuing to introduce and pass legislation which places various degrees of prohibition on surface mining of coal and taxation of coal extraction in general. This appendix briefly reviews legislation introduced in Ohio and West Virginia that directly or indirectly affects surface mining.

OHIO

In 1975, the Ohio General Assembly considered a number of bills which would affect surface coal mining. Two of these bills, House Bill No. 584 and House Bill No. 191, were enacted and others are still pending. H.B. No. 191 is directed specifically at coal strip mining in that it requires a license to engage in coal strip mining in addition to permits to strip mine. The act replaces the former one-year license system for conducting a strip mining operation with a system requiring the operator to obtain both a three-year permit and a one-year license. No coal strip mine permit may be issued unless the operator holds a valid license. H.B. No. 584 creates an Ohio Energy and Resource Development Agency which is to administer a program to meet state-wide energy needs, award grants and contracts for energy and resource experimental development demonstration facilities, issue energy and resource development revenue bonds, give priority to assisting in the construction of coal conversion plants, and provide a 30-year personal property and franchise tax exemption for coal conversion facilities constructed prior to 1983. The act also grants the governor energy emergency powers.

Governor James A. Rhodes placed before the Ohio voters at the November general election a constitutional amendment that would affect the coal industry. The amendment would authorize the issuance of bonds and notes up to \$2,750,000,000. One of the purposes of this money would be for capital improvements including energy facilities.

Bills Requiring Permits, Licenses, Certifications, or Certain Information

There were no known bills left pending in the 1975 session that required new applications, licenses or more information.

Bills Affecting Surface Mining

The following are bills affecting surface mining that were not passed in the last session but are expected to reappear in the 1976 session.

Interstate Mining Compact Act (H.B. 330) -Disposition

Favorably passed by the House and reported favorably by the Senate Commerce and Labor Committee.

Summary

Would make Ohio a party to the Interstate Mining Compact which operates through an Interstate Mining Commission consisting of the governors of the party states. Each party state is required to formulate a program for the conservation and use of mined land, including protection of the public and land owners from damages to property from the conduct of mining or the abandonment or neglect of land formerly used for mining. The bill would also require the development of programs of restoration and rehabilitation of mined lands, and prevention, abatement, and control of pollution from past, present, or future mining.

Administering Agency

Interstate Mining Commission plus an advisory body in each state.

Effects on Surface Mining

The commission would collect information, conduct studies, and make recommendations to the party states. Party states must establish programs for conservation and use of mined land which would include protection of the public and land owners, methods of handling mine waste, restoring and rehabilitating mine lands, and preventing and controlling pollution from past and future mining.

Revising the Mining Health and Safety Laws (2 bills - H.B. 931 and H.B. 857) -

Disposition

Both bills were referred to a sub-committee of the House Energy Environment Committee.

Summary

H.B. 931 revises Ohio's mine health and safety law with respect to surface mining coal operations as follows:

- a) Increases the number of deputy mine inspectors
- b) Revises mine safety inspection requirements
- c) Allows diesel equipment to be employed in coal mines
- d) Changes existing penalties for violation of mine health and safety laws

H.B. 857 revises Ohio's mine health and safety law with respect to surface mining coal operations as follows:

- a) Establishes new certified positions of general mine foreman
- b) Sets procedures for revoking a miner's certificate
- c) Sets extensive equipment, material and work standards to protect miners
- d) Sets mine construction and maintenance standards
- e) Increases criminal penalties for violation of mine health and safety law

Regulating Electric Companies Fuel Adjustment Clauses (H.B. 579) -

Disposition

Passed the Senate; not considered by the House.

Summary

This bill would have only a small effect on surface mining operations such as requiring the Public Utilities Commission to issue a rule setting up incentives for the implementation and use of efficient fuel procurement and utilization practices by electric companies.

WEST VIRGINIA

Presently, almost half of the counties in West Virginia have a moratorium on coal surface mining. The 1975 session of the legislature considered numerous bills affecting surface mining, the following of which were enacted: Senate Bill No. 316 to allow an exemption from gross income derived from any demonstration, pilot or research project for the gasification or liquifaction of coal when the same is totally or partially funded by public funds from the business and occupation tax; H.B. 649 to prohibit the issuance of new permits for the surface mining of coal in any county excepting those where such mining existed in 1970; H.B. 1298 to allow for the continuation of the West Virginia Commission on Energy, Economy and Environment; S.B. No. 153 to provide for the continuation of the Coal Research Bureau's investigations and research concerning uses of coal, mine safety and development of the mineral industry; S.B. No. 285 to impose an additional tax upon the privilege of engaging in the business of mining coal for profit.

Bills that were not enacted but are expected to be reconsidered in the next session are discussed below.

Bills Requiring Permits, Licenses, Certifications, or Certain Information

Act Relating to Reclamation and Surface Mining (Amending Present Statute Relating to Reclamation and Limitations on Surface Mining Article 6, Chapter 20, C.W.Va, 1931) (S.B. 266) -

Disposition

Sent to the Natural Resources Committee.

Summary

The proposed bill is directed at surface mining and reclamation, places limitations on surface mining, requires a permit, a reclamation mining pre-plan, provides for a special reclamation tax, and establishes a Reclamation Board of Review setting forth its powers and duties.

Administering Agency

Department of Natural Resources would issue permits, and also establish a Reclamation Board of Review.

Requirements for Surface Mining

This bill would amend the existing Surface Mining Reclamation Act. The reclamation and mining plan would be submitted

with an application for a surface mining permit and would have to include:

- a) A statement of the highest and best use of the land prior to mining
- b) The use proposed after reclamation
- c) The manner in which topsoil and subsoil would be conserved and restored
- d) The manner in which compaction of the soil and fill would be accomplished
- e) A complete planting program
- f) A timetable for accomplishment of each major step in the reclamation plan
- g) A full explanation of the conditions which do not permit contouring and other alternatives
- h) Written consent of the landowner to enter upon the land for a period of five years after completion of operations
- i) Methods for diverting surface water from draining into the mine

(Note: No approval would be granted unless the plan provided a method for avoiding acid mine drainage and preventing avoidable siltation or other pollution.)

The application for a permit would also be accompanied by a detailed map or plan setting forth, in addition to those things expected to be found on such a map or plan, the following: names and addresses of the owners and present occupants of the land; miner mineral owners, results of test boring; analysis of any coal; the mineral seam overburden; aerial photographs; method by which acid bearing spoil would be suitably prepared for revegetation and stabilization.

It would also be required that, within ninety days after commencement of the mining operations and every ninety days thereafter, the operator would file in triplicate an operation and progress report and also a monthly report on the mineral produced, the number of employees, and the days worked. Other reports, e.g., all fatal and non-fatal accidents; current status of the reclamation work performed, and other information desired by the Department of Natural Resources, would be required. Operators would have to furnish annually a new map updating the map submitted with the application. An additional amendment

would allow a reclamation inspector to immediately close down the entire operation where overburden had escaped the boundary of the disturbed area. The bill also sets forth the makeup of the Reclamation Board of Review whose basic authority would be to act as an appeals board for those wishing to appeal refusal to issue a permit.

A very important aspect of the bill is set forth in a section entitled "Limitations on the issuance of new permits for surface mining". This section restricts surface mining in the following manner:

- a) Starting on March 13, 1975 and ending on March 12, 1980, no new permits would be issued for surface mining in any county where no surface mining of coal existed during 1970.
- b) No new permits would be issued for surface mining through the auger method where the seam of coal to be mined sloped upward from the bench.
- c) Surface mine applications would be accompanied by a detailed statement prepared by the Department of Natural Resources which would include, basically, the same requirements that are set out in the National Environmental Policy Act such as: (1) environmental impact; (2) adverse environmental effects; (3) alternative methods; (4) relationship between local short term use and long term productivity; and (5) irreversible and irretrievable commitment of resources. Comments from other state and federal agencies would be required. The new provision would also provide for a hearing upon request and would allow for the institution of civil action by any person.

Prohibiting Issuance of New Permits for Surface Mining (Amendment to West Virginia Surface Mining Reclamation Act Section 1, Article 6-A, Chapter 20, Code of West Virginia 1931) (S.B. 262) -

Disposition

Referred to the Natural Resources Committee.

Summary

This bill would prohibit issuance of new permits for surface mining after the effective date of the amendment. Where a permit had been applied for prior to January 1, 1971, the application would be processed and granted or refused as though this section did not exist.

Prohibition Against Engaging in the Surface Mining of Coal After July 1, 1976 (Amendment to Article 6-A, Chapter 20 of the Code of West Virginia 1931) (S.B. 190) -

Disposition

Submitted to the Natural Resources Committee.

Summary

This bill would make it unlawful for any person to engage in the surface mining of coal after July 1, 1976. It would also prohibit the issuance of new permits for the surface mining of coal after June 30, 1975 and provide that no more than one renewal or extension of a then valid permit for the surface mining of coal would be issued or granted subsequent to June 30, 1975, and that any such renewal or extension would be valid only until July 1, 1976. Penalties for violations are provided. The bill also would provide and create a temporary placement and training program for displaced surface mine workers.

Coal Refuse Disposal Control Act (Amendment to Article 6-C, Chapter 20 of the Code of West Virginia 1931) (S.B. 277) -

Disposition

Submitted to the Mines and Mining Committee.

Summary

Sets forth a method of coal refuse disposal and control including a requirement for a coal refuse disposal permit and a requirement that a reclamation pre-plan be submitted with the application for the permit.

Administering Agency

Department of Natural Resources.

Requirements for Surface Mining

Prior to engaging in a surface mining coal operation the operator would have to obtain a permit from the Director of Natural Resources setting forth a detailed plan for disposal of all wastes and refuse and ultimate sealing and abandonment of the operation in a manner approved by the Director. The application for a coal refuse disposal permit would contain, in addition to the normal information, the names and addresses of owners of the surface area within five hundred feet of any coal refuse pile so as to allow such owners to be notified of such permit application and be given a ten-day period in which to file written objections.

In addition, the applicant would have to include an insurance policy covering all coal refuse disposal piles and affording personal injury protection in an amount not less than \$100,000 and property damage protection in the amount of not less than \$300,000. Upon issuance, a permit would be valid for one year from the date of issuance and would have to be renewed annually. In addition to the requirements for the application, the operator would also prepare a complete coal refuse disposal and reclamation plan to be submitted with the application. The coal plan would include proposed methods of operation, backfilling, soil preparation, mining and planting and such other proposals as may be necessary to develop the complete coal refuse disposal and reclamation plan. The plan would also take into consideration reasonable measures to eliminate damages to members of the public from erosion, subsidence, water pollution, air pollution, and any other hazards. The plan would also be accompanied by a detailed map.

Prior to the beginning of a coal refuse disposal operation, the operator would complete and maintain a drainage system to direct surface water runoff from above an area where coal refuse could be deposited above ground, and any drainage from a backfilling operation or above-ground disposal area would be collected. The bill sets forth penalties for failure to comply with any of its provisions. The bill also would require that within 60 days of the effective date of the bill existing operations would have to apply for a coal refuse disposal permit. Before any permit could be issued, the applicant would pay to the Director a special reclamation tax as determined by the Reclamation Commission.

Act Affecting the Method of Reclamation (Amending Article 6, Chapter 20 of the Code of West Virginia 1931) (S.B. 214) -

Disposition

Submitted to the Natural Resources Commission.

Summary

This bill would require surface mine operators to restore land disturbed by surface mining to its approximate original contour with all high walls, spoil piles, and depressions eliminated. It would prohibit spoil banks on slopes of twenty degrees or greater, eliminate the present bench width limitation, and give the Director the authority to waive drainage system requirements where the operator retains and treats the water. The bill would provide a notice requirement for an application for a permit seeking comments from city and county government and

other state agencies on the environmental effects. In addition, it would also provide a means for a public hearing on the application.

Administering Agency

Department of Natural Resources and the Reclamation Commission.

Requirements for Surface Mining

In addition to those permit requirements already set forth in the statute, this bill would establish detailed requirements for notification of applications for a permit. The bill would also provide a means for public hearings on the application by any person with a valid legal interest in the development.

The bill would also add a new section directed at reclamation requirements which would bring about a more desirable land use. This section would require the operator to execute contracts and post bond and to meet the following requirements:

- a) Utilize overburden as a barrier to slides and erosion
- b) Stabilize reclaimed areas
- c) Build inward drains from the outcrops
- d) Preserve natural water courses

Bills Affecting Surface Mining

Requiring Reclamation of Land Where Surface Rights are Owned by Others (Amends Article 6, Chapter 20 of the Code of West Virginia 1931) (S.B. 299) -

Disposition

Submitted to the Natural Resources Committee.

Summary

This bill would require that the operator have the same obligation to reclaim land as if he owned the land but where in fact the surface rights are owned by another person.

Reclamation and Rehabilitation of Areas Damaged by Deleterious Mining Practices (Amendment to Chapter 20 Code of West Virginia 1931) (S.B. 141) -

Disposition

Submitted to the Natural Resources Committee.

Summary

This bill would require the Director of the Department of Natural Resources to establish and implement a comprehensive state program for the reclamation and rehabilitation of those areas in the state which have been damaged by deleterious mining practices. Such a program would be designated "operation coal waste clean-up". The Director would be authorized to prevent, control, and eliminate mine drainage pollution, burning gob piles, underground mine fires, mine subsidence, and other land and water scars created by coal mine practices. The Director would also have authority, with the written approval of the Governor, to sell reclaimed land. This bill would not place any requirements on mine operators.

Creating A Department of Environmental Control (Amendment to Chapter 16 Code of West Virginia 1931) (S.B. 107) -

Disposition

Sent to the Natural Resources Committee and the Finance Committee.

Summary

This bill would create a Department of Environmental Control to exercise authority regarding the regulation and control of water and air pollution. This new department would absorb existing departments, agencies, and commissions which now exercise authority under the Water Resources and Water Pollution Control and Air Pollution Acts. This act would not directly establish requirements for surface mining coal operation.

Interstate Environmental Compact (Amendment to Chapter 29 Code of West Virginia 1931) (S.B. 106) -

Disposition

Passed the Senate. Sent to the House Judiciary Committee.

Summary

The purpose of this bill would be to adopt the Interstate Environmental Compact. The compact would authorize the party states to participate in a cooperative or joint undertaking for the protection of the interstate environment and authorizes the party states to enter into supplementary agreements for the purpose of controlling interstate environmental problems. This bill would only indirectly affect surface mining operations.

Use of Reclamation Tax for Surface Mining Reclamation (Amends Section 17, Article 6, Chapter 20 Code of West Virginia 1931) (S.B. 281) -

Disposition

Sent to the Natural Resources Committee.

Summary

The purpose of this bill would be to authorize the Director of Natural Resources to prepare plans and expend special reclamation funds on older strip lands that need additional reclamation work.

Amendment to the State's Air Pollution Control Act (Amendment to Article 20, Chapter 16, Code of West Virginia 1931) (S.B. 300) -

Disposition

Rejected by the Senate.

Summary

This bill would amend the State Air Pollution Control Act to generally conform with the Water Pollution Control Act and authorize the exercise of the power of eminent domain. The bill would allow an owner of a polluting source to acquire land determined by the Air Pollution Control Commission to be reasonably necessary for the acquisition, construction, installation, extension and modification of, or addition to, equipment or operating methods in order to comply with rules, regulations or orders of the commission.

Retention of the State Air Pollution Control Implementation Plan (Amends Section 5, Article 20, Chapter 16 Code of West Virginia 1931) (S.B. 205) -

Disposition

Sent to the Judiciary Committee.

Summary

This bill would require the West Virginia Air Pollution Control Commission to keep the State Air Pollution Control Implementation Plan and all rules, regulations and standards incorporated therein from being any more stringent than necessary to achieve air quality standard established pursuant to the "Clean Air Amendments of 1970" Act and from specifying emission limitations for existing sources which are more stringent than the emission limitations heretofore promulgated by the United

States Environmental Protection Agency applicable to new sources.

West Virginia Commission For Coal Development and Research (Amends Chapter 22, Code of West Virginia 1931) (S.B. 551) -

Disposition

Sent to the Judiciary Committee.

Summary

The purpose of this bill would be to create a Commission for Coal Research and Development to promote the utilization and marketability of West Virginia coal.

Continue the Commission on Energy, Economy and Environment (Repeals Section 9 and 10, Article 17, Chapter 5 and Amends Sections 2, 3, and 9 of Said Article Code of West Virginia 1931) (S.B. 5449) -

Disposition

Sent to the Judiciary Committee.

Summary

The purpose of this bill would be to continue the Commission on Energy, Economy and Environment and to provide that the Governor appoint the citizen members of the commission.

Excise Tax on Mining Minerals (Amends Chapter 11, Code of West Virginia 1931) (S.B. 29) -

Disposition

Sent to Finance Committee.

Summary

This bill would impose on producers of minerals a severance tax for the privilege of severing, extracting, or producing minerals from any mineral property located within the state. This tax would be equal to five percent of the "gross income of the property" as such term is defined in the Internal Revenue Code for purposes of the federal percentage depletion allowance.

Department of Environmental Protection and Control (Repeals Articles 5, 5a, b, d, 6, 6a, b and c, Chapter 16, Chapter 20 and Adding a New Chapter Designated Chapter 20-a, Code of West Virginia 1931) (S.B. 464) -

Disposition

Sent to the Natural Resources Committee and the Finance Committee.

Summary

The purpose of this bill would be to consolidate various state commissions, boards, agencies, and divisions which now have environmental control responsibility into one department to be known as the "Department of Environmental Protection and Control". The department would be headed by a commissioner appointed by the Governor. The bill would provide for the appointment by the Governor of a five-member independent board to be known as the "Environmental Protection and Control Board". The Board would review rules and regulations promulgated by the Division and hear and review appeals. The Department would be responsible for water resources, including water pollution control, husbandry of water areas, and natural streams preservation; air pollution control; surface mining control and reclamation; coal refuse disposal; administration of the Interstate Mining Compact; and dam control.

Solid Waste Management Act (S.B. 184) -Disposition

Introduced in the Senate - Failed in the House.

Summary

Would establish a solid waste authority as a legal entity to administer the collection, storage and disposal of solid waste generated throughout the state by municipal, residential, and commercial sources.

West Virginia Pollution Control Coordinating Act (Amending Chapter 29 of the Code of West Virginia 1931) (W.B. 117) -Disposition

Passed by the Senate - Failed in the House.

Summary

This bill would be directed at environmental protection and pollution control and create the West Virginia Pollution Control Coordinating Board and West Virginia Department of Pollution Control.

APPENDIX J

FOOTNOTES FOR COMPARISON OF LEGAL
REQUIREMENTS, TABLES III-6 THROUGH III-10

Key to Footnotes

Document
Identity -

Title of reference cited

A - Acts, Statutes, Laws, etc.

R - Rules, Regulations, Codes, etc.
pursuant to A

G - Guidelines promulgated by state
agencies

I - Instructions to forms, licenses,
permits, applications, etc.

Note
Number

Section, paragraph, subparagraph, etc.,
of cited reference

Example:

A2-

Code of Federal Regulations, Title 43,
Part 23 (as ammended at 34 FR 852,
January 18, 1969); cited as 43 CFR 23

2

Section 23.7, Paragraph (c), subparagraph
(1)

Thus, the existing federal requirement, noted as A2-2 in
Table III-6, which is similar or equivalent to the
currently proposed federal requirement appearing in the
Federal Register, Volume 40, Number 173, September 5, 1975
is located at:

43 CFR 23.7 (c) (1)

FEDERAL

A1- Code of Federal Regulations, Title 30, Part 211 (as amended at 38 FR 10001, April 23, 1973); hereinafter cited as 30 CFR 211.

- 1 30 CFR 211.16(a) Lessee shall submit detailed reports upon completion of any prospect borehole, prospecting operation, or geologic investigation.
- 2 30 CFR 211.16(a) Implied
- 3 30 CFR 211.19 Showing position, dip and thickness of each coal bed.
- 4 30 CFR 211.16(a)
- 5 30 CFR 211.16(b)

A2- Code of Federal Regulations, Title 43, Part 23 (amended at 34 FR 852, January 18, 1960); hereinafter cited as 43 CFR 23.

- 1 43 CFR 23.5(a)(1) Technical examination shall be made in consideration of the need for the preservation and protection of other resources and the environment.
- 2 43 CFR 23.7(c)(1) A description of the area within which exploration is to be conducted.
- 3 43 CFR 23.7(c)(3)
- 4 43 CFR 23.7(c)(4)
- 5 43 CFR 23.10(c,d) Approved exploration plans may provide for annual reports to be filed for grading and backfilling, and planting.
- 6 43 CFR 23.7(c)(2) Two copies of a suitable map or aerial photograph.
- 7 43 CFR 23.7(c)(2)
- 8 43 CFR 23.7(c)(3) Implied
- 9 43 CFR 23.8(b)(2) Two copies of a suitable map or aerial photograph.
- 10 43 CFR 23.8(b)(2)
- 11 43 CFR 23.8(b)(2) Drainage plan away from area to be affected.
- 12 43 CFR 23.8(b)(1) A description of the location and area to be affected by the operations.
- 13 43 CFR 23.8(b)(7) Proposed manner and time of performance of work to reclaim areas disturbed.
- 14 43 CFR 23.8(b)(5)
- 15 43 CFR 23.8(d)
- 16 43 CFR 23.8(c) When revegetation is required by permit, lease, or contract.
- 17 43 CFR 23.5(a)(1) Technical examination shall be made for area of surface mining operations regarding effects on the environment, and shall consider the need for the preservation and protection of other resources.

- 18 43 CFR 23.5(b) Based upon the technical examination, the district manager shall formulate the general requirements the applicant must meet for the protection of non-mineral resources during the mining operations. The general requirements will be made known in writing to the applicant, and upon acceptance thereof by the applicant, shall be incorporated in the permit, lease or contract.
- 19 43 CFR 23.5(a)(1) Implied
- 20 43 CFR 23.8(c)(2,3) Plan shall show types and mixtures of shrubs, trees, seedlings, grasses or legumes to be planted; types and methods of planting, including amounts/acre, the number and spacing of trees or seedlings, or combinations of trees and grasses.
- 21 43 CFR 23.5(e) Plan must not violate Federal Water Pollution Control Act.
- 22 43 CFR 23.10(b) Operations report to be submitted within 30 days after end of calendar year or 30 days after cessation of operations.
- 23 43 CFR 23.10(b)(1) Identify location of operation.
- 24 43 CFR 23.10(b)(2) Description of the operations performed during the report period.
- 25 43 CFR 23.10(b)(1) Identification of permit, lease or contract.
- 26 43 CFR 23.10(b)(4-6) (4) Statement as to the number of acres disturbed and the number of acres reclaimed; (5) Description of reclamation method and results; (6) Statement and description of reclamation work remaining to be done.

ALABAMA

A1- Alabama Surface Mining Act of 1969, Sections I-XVIII; hereinafter cited as ASMA.

- 1 Property description to 1/16th of a Section, or 40 acres, including a description of access to the area from the nearest-public highway.
- 2 ASMA V(E)
- 3 ASMA VII(A) (4)
- 4 ASMA VII(A) (2)
- 5 ASMA VII(B)
- 6 ASMA VII(A) (3) Cover with minimum of two feet of overburden material or water impoundment.
- 7 ASMA VII(C) Provided that lakes will not interfere with underground or other mining operation or cause damage to adjoining property.
- 8 ASMA VII(A) (4) Divert water from the mining operation in manner designed to reduce damage to streams and natural water courses.
- 9 ASMA VII(A) (4) Divert water to reduce siltation and erosion.
- 10 ASMA VII(D) Construct fire lanes or access roads not less than 12 feet wide or more than 1/4 section apart at their nearest point.
- 11 ASMA VII(B) Native commercial species.
- 12 ASMA VII(B) (2) Operator not required to revegetate affected land as long as the chemical and physical characteristics of the soil of such affected land are toxic, deficient in plant nutrients, composed of sand, gravel, shale, or stone to such extent as to seriously inhibit plant growth. Where natural weathering and leaching of any such affected land over a period of 10 years from expiration of the permit period fail to remove the toxic and physical characteristics inhibiting plant growth, or at any time after 3 years from permit expiration the Department determines that any of such affected land is and during the remainder of said 10 years period will be unplantable, the operator will be relieved of revegetation obligations.
- 13 ASMA VII(A) (1) Submit within 90 days after expiration of permit a map or aerial photograph showing location of operation by section, township, range, and county, and showing number of acres of affected land and reclamation to be made.
- 14 ASMA VII(A) (1)

R1- Surface Mining Regulations Adopted by the Alabama Water Improvement Commission (June 14, 1974); hereinafter cited as SMR.

- 1 SMR 3(B) (3)
- 2 SMR 3(B) (4)

- 3 SMR 3(B)(7) Shall be designed by professional engineer competent in dam design.
 - 4 SMR 6(C) No earthen sedimentation basin shall be abandoned without permission of Alabama Water Improvement Commission.
 - 5 SMR 3(B)(7) Plans must be prepared by a registered professional engineer.
 - 6 SMR 5(A) Operator must obtain permit by Alabama Water Improvement Commission before beginning mining operations.
 - 7 SMR 3(a) Surface mine operators must submit Pollution Abatement and/or Prevention Plan to Commission.
- G1- Guidelines for Minimizing the Effect of Surface Mining on Water Quality, Alabama Water Improvement Commission (June 14, 1974).
- 1 Facilities (2) Construct basin bottoms so as to prevent pollution of the water table.
 - 2 Roads (4)
- 11- Alabama Water Improvement Commission, Application for Surface Mining Permit; hereinafter cited as SMP.
- 1 SMP 17 Require topographic map, scale 1:20,000
 - 2 SMP 17(H)
 - 3 SMP 17(A) Location of areas being actively mined or to be mined within 5 years.
 - 4 SMP 17(F)
 - 5 SMP 17(F) Implied
 - 6 SMP 17(B,J) Settling basins and dams.
 - 7 SMP 18 Implied
 - 8 SMP 18(H,I)
 - 9 SMP 18(C,G) Preparation plants, wastewater treatment facilities.
 - 10 SMP 19(A) Method and plan for diverting surface water runoff from operational area and mineral and refuse storage piles.
 - 11 SMP 18 Include plans and specifications of proposed treatment facilities.
 - 12 SMP 16
 - 13 SMP 7,10 Requires NPDES permit.
 - 14 SMP 19(C) Before and after treatment including flow, suspended solids, total iron and pH.
 - 15 SMP 19 (C) Implied
- 12- Alabama Department of Industrial Relations, Applications for Strip Mining Permit and Plan of Reclamation; Form DIR-ASM-1 & 2.
- 1 DIR-ASM-1 & 2
 - 2 DIR-ASM-1 & 2 Describe handling method on application for permit.
 - 3 DIR-ASM-1 & 2 Indicate on application.

ALASKA

A1- Alaska Statutes, Title 38, Sections 38.05.135 through 38.05.150 (as ammended 1972); hereinafter cited as AS 38.05.

- 1 AS 38.05.150(c) If prospecting permittee submits a satisfactory mining plan, the permittee shall be entitled to a lease.

A2- Alaska Statutes, Title 46, Sections 46.03.010 through 46.03.900, Environmental Conservation (as ammended 1973); hereinafter cited as AS 46.03.

- 1 AS 46.03.040(c) Department formulates and reviews annually a state wide environmental plan for the management and protection of the quality of the environment and natural resources of the state.

R1- Alaska Administrative Code, Title 18, Chapter 60, Solid Waste Management, Sections 60.010 through 60.130 (1973); hereinafter cited as 18 AAC 60.

- 1 18 AAC 60.030(c) Permittee responsible for restoring area by grading, contouring and seeding in accordance to plans approved by the department.
- 2 18 AAC 60.050(3)
- 3 18 AAC 60.050(1-13)

R2- Alaska Administrative Code, Title 18, Chapter 70, Water Quality Standards, Sections 70.010 through 70.110 (1973); hereinafter cited as 18 AAC 70.

- 1 18 AAC 70.080 If best practicable control technology currently available for industrial wastes is inadequate to achieve water quality criteria, higher levels of treatment will be required.
- 2 18 AAC 70.020 Chemical constituents may not exceed concentration found to be of public health significance.

R3- Alaska Administrative Code, Title 18, Chapter 75, Oil Pollution Control, Sections 75.010 through 75.070 (1973); hereinafter cited as 18 AAC 75.

- 1 18 AAC 75.010 Any hard surface road constructed with petroleum base products as a dust retardant requires surface oiling permit.

R4- Alaska Administrative Code, Title 11, Chapter 84, Other Leasable Minerals, Sections 84.100 through 84.170 (1974); hereinafter cited as 11 AAC 84.

- 1 AAC 84.115 Detailed plan to be submitted to Div. of Lands. Plan to include description of:
 - 1) Method to be used
 - 2) Area to be covered
 - 3) Type of equipment to be used
 - 4) Estimated time schedule for the operations
 - 5) Any other info the director may require
- 2 11 AAC 84.115
- 3 11 AAC 84.115 Implied
- 4 11 AAC 84.115 Extended from prospecting permit to the coal lease conditions.

- 5 Telephone Conversation with Division of Lands, Minerals Information Section: Reclamation plan required to be submitted for prospecting permit and to become part of coal lease if mining occurs. No guidelines or regulations available.
- I1- Alaska Department of Natural Resources, Division of Lands, Application for Coal Prospecting Permit, Form DL-70 (1960).
 - 1 DL-70 Township, range, meridian and acreage to be indicated on application.
- I2- Alaska Department of Natural Resources, Division of Lands, Coal Lease, Form DL-71 (1960).
 - 1 DL-71 Maps and plans required prior to issuing of lease by division. Maps and report requirements are written into lease agreement. Details of map and report requirements are not specified.

ARIZONA

Arizona does not have any state regulations regarding the mining of coal since all known coal deposits are located on Indian lands. Therefore, all coal mining activities are performed in accordance with federal mining regulations.

ARKANSAS

- A1- Arkansas Open Cut Land Reclamation Act (Act 236 of 1971); hereinafter cited as 236.
- 1 236.6(h) The Commissions approval of the operator's reclamation plan shall be based upon the advice and technical assistance of State Highway Commission, State Soil and Water Conservation Commission, Game and Fish Commission, State Forester, Agriculture Extension Service, Pollution Control and Geology Commissions, etc.
 - 2 236.6(h)
 - 3 236.6(h) Which part shall be reclaimed for forest, pasture, crop, horticulture, homesite, recreational, industrial or other uses.
 - 4 236.6(g) A map, suitable to the Commission, shall be submitted no later than the first day of September during each year of permit.
 - 5 236.6(g) Describe to identify the land affected.
 - 6 236.6(g)
 - 7 236.6(g) During permit term, Implied.
 - 8 236.6(f) Implied
 - 9 236.6(a,d)
 - 10 236.6(i) All reclamation shall be carried to completion prior to the expiration of two years after termination of the permit term, except no planting required to be made within depressed haulage roads or final cuts or any other area where pools or lakes may be formed. Reclamation period may be extended from year to year for a period of ten years where weathering and leaching affect land.
 - 11 236.2 Land shall be restored to "productive use".
 - 12 236.6(a) All sites will be reduced to terraces or rolling topography with adequate drainage.
 - 13 236.6(f) Not less than 3 feet cover.
 - 14 236.6(e) Implied
 - 15 236.6(b) May construct dams in accordance with sound engineering practices.
 - 16 236.6(f)
 - 17 236.6(b)
 - 18 236.6(c) Reasonable fire lanes or access roads of at least ten feet in width through land to be reforested.
 - 19 236.6(j) Stock of desired tree species from the state nurseries.
 - 20 236.6(i) Where natural weathering and leaching prevents revegetation to be completed within approved period, extension is granted from year to year for a period of ten (10) years.
 - 21 236.5(a) Acreage to be affected during next five years.

- 22 236.6(f) Must conform with water pollution criteria.
- R1- Minute Order No. 72-12; (February 11, 1972); hereinafter cited as MO 72-12.
 - 1 MO 72-12(1) No final slope steeper than one vertical to three horizontal.
 - 2 MO 72-12(2)
 - 3 MO 72-12(1) No final slope will be steeper than one vertical to three horizontal.
 - 4 MO 72-12(4) pH of 6-8 must be maintained.
 - 5 MO 72-12(2) Species recommended by Commission.
- I1- Instructions for Implementation of the Open Cut Mining Law for Administrative Purposes, Arkansas Pollution Control Commission (June 1, 1971).
 - 1 Maps In simple situations, one copy each of size (16"x20"):
 - a) A county map with mine location marked in red.
 - b) A small scale map (1"=500') with mine location marked in red and indicating spoil areas and areas to be reclaimed.In complex situations:
 - a) A county map with mine location marked in red.
 - b) An area map (scale 1"=2,000', for instance) divided into sections.
 - c) Section maps (1"=500'), one for each section.
 - d) One or more of (c) section maps marked to show proposed area to be mined.
 - e) One or more of (c) section maps marked to show the plan for reclamation.
 - f) A map showing contours of the mining and reclamation areas, or typical cross sections; maps to be serially numbered and carry operator's name in bold letters.
 - 2 Maps
 - 3 Maps Implied: as an aid in presenting the proposed reclamation plan.
- I2- Application for Permit to Engage in Open Cut Mining in the State of Arkansas; hereinafter cited as Application.
 - 1 Application

CALIFORNIA

- A1- Senate Bill Number 756, adding Chapter 9, Sections 2710 through 2793, to Division 2 of the California Public Resources Code effective January 1, 1976, known and cited as the Surface Mining and Reclamation Act of 1975; citations are to individual sections of Chapter 9.
- 1 2714(b) Provisions of Act do not apply to prospecting if less than 1000 cubic yards are removed at any one location of one acre or less. However, Section 2735 defines prospecting and exploratory activities as "surface mining operations" and it is presumed that a complete mining and reclamation plan would be required if prospecting activities exceeded those specified in Section 2714(b).
 - 2 2773 Implied; the reclamation plan shall be based upon the character of the surrounding area and such characteristics of the property as type of overburden, soil stability, topography, geology, climate, stream characteristics, and principal mineral commodities.
 - 3 2773 Implied
 - 4 2772(g) Description of the proposed use or potential uses and evidence that all owners of a possessory interest in the land have been notified of the proposed use or potential uses.
 - 5 2728 The city or county which has the principal responsibility for approving the surface mining and reclamation activities acts as the lead agency.
 - 6 2772(h)
 - 7 2772(b,d) Anticipated quantity and type; of minerals, and the maximum anticipated depth of the surface mining operation.
 - 8 2772(f) A description and plan for the type of surface mining to be used, including a time schedule for the completion of surface mining on each segment of the mined lands.
 - 9 2772(h)
 - 10 2756 State policy shall apply to the conduct of surface mining operations and shall include, but not limited to, measures to be employed by local governments in specifying grading, backfilling, resoiling, revegetation, soil compaction and other reclamation requirements, and for soil erosion control, water quality and watershed control, waste disposal, and flood control.
 - 11 2772(h) Describe how contaminants will be controlled.
 - 12 2772(c) Proposed dates for initiation and termination of operations.
 - 13 2772(f) Implied
 - 14 2772(e) A topographic map required; numbers of copies and scales not specified. Map also to show names and addresses of surface and mineral rights owners, and all boundaries.
 - 15 2772(e)
 - 16 2772(e) Within and adjacent to area in which surface mining is to be conducted.
 - 17 2772(e) Including all proposed access roads.

- 18 2772(e) Map to show detailed description of the geology in the area in which surface mining is to be conducted.
- G1- California Division of Mines and Geology, Department of Conservation, Recommended Guidelines for Preparing Mine Reclamation Plans, CDMG Note Number 45 (1975); hereinafter cited as CDMG 45.
- 1 CDMG 45 Guidelines prepared to provide adequate review of reclamation plans in order to prevent detriment to the environment.
 - 2 CDMG 45(11) Describe the surface and subsurface geology, geometric pattern of the mineral deposit, ground water conditions, and slope stability.
 - 3 CDMG 45(1) Geologic portions of the plan must be written and signed by a geologist registered in California.
 - 4 CDMG 45(10) Describe present types and densities of vegetation and the effect of its removal on the environment.
 - 5 CDMG 45(9) A general description of the present land use, and the effect that proposed mining and reclamation may have on the adjacent land use must be discussed.
 - 6 CDMG 45(14) Plan should be compatible with the General Plan, local ordinances, and State Regulations.
 - 7 CDMG 45(18)
 - 8 CDMG 45(15) Procedures should follow UBC chapter 70 (1973) or more rigorous grading ordinance when required.
 - 9 CDMG 45(16)
 - 10 CDMG 45(17) Implied
 - 11 CDMG 45(17, 18) Implied
 - 12 Note: Contact California Division of Safety of Dams for design parameters and criteria.
 - 13 CDMG 45(16) Recommended vegetation should be compatible with the site.
 - 14 CDMG 45(4) The staging (or phasing) of reclamation with mining operations shall be explained in detail.
 - 15 CDMG 45(17) A discussion on the disposal of mining and stripping wastes.
 - 16 CDMG 45(11) Surface and subsurface geology, geometric pattern of mineral deposit, groundwater conditions and slope stability should be shown on maps.
 - 17 CDMG 45(8) Location of all access and haul roads, and other facilities shall be shown on a map.
 - 18 CDMG 45(11) Implied
 - 19 CDMG 45(7) Location and size of excavation(s) including areal extent, geometry and depth at various time schedules should be included.
 - 20 Note: Although not specifically mentioned, the attitude of the CDMG 45 Guidelines imply that locations would be required to be shown on a map.

- 21 CDMG 45(8) Implied by term "other facilities".
- 22 CDMG 45(1) Maps shall be prepared by a professional (e.g. landscape architect, civil engineer) with specialized knowledge of mine reclamation. Geology maps shall be prepared by a registered geologist.
- 23 Note: Unable to determine if required.

COLORADO

- A1- Colorado Revised Statutes 1963, Sections 92-13-1 through 92-13-18 (1969 and 1973 Supp., as amended), known and cited as the "Colorado Open Mining Land Reclamation Act of 1973"; citations are to individual sections.
- 1 92-13-5(2)(b) Legal description and area of land to be affected.
 - 2 92-13-5(3)(i) Indicate on application map.
 - 3 92-13-5(3)(j) Indicate on application map.
 - 4 92-13-6(1)(g)
 - 5 92-13-6(1)(g) Board to confer with local board of county commissions and board of supervisors of soil conservation district before approval.
 - 6 92-13-6(1)(b) Explain all general requirements for the type of reclamation chosen.
 - 7 92-13-5(3)(k) Indicate depth and thickness on application map.
 - 8 92-13-5(2)(h) Detailed description of mining method.
 - 9 92-13-6(1)(c)
 - 10 92-13-6(1)(h,k,l) Implied; species to be determined primarily by recommendations from agricultural experiment stations.
 - 11 92-13-6(1)(b) Operator shall submit a reclamation plan, and map of reclaimed areas on or before July 1 each year.
 - 12 92-13-6(1)(c) In all cases, an even or gently undulating skyline will be a major objective.
 - 13 92-13-6(1)(e) Cover with earth or spoil material to a depth which will protect the drainage system from pollution (guidelines say 2 feet), or with at least 4 feet of water.
 - 14 92-13-6(1)(d) If impoundments will not interfere with mining operations or damage adjoining property.
 - 15 92-13-6(1)(d) Implied
 - 16 92-13-6(1)(e,f) Implied
 - 17 92-13-6(1)(f)
 - 18 92-13-6(1)(f) All refuse shall be disposed of in a manner that will control stream pollution, unsightliness, or deleterious effects from such refuse.
 - 19 92-13-6(1)(f) Implied
 - 20 Note: Rules and regulations regarding blasting are presented in the Colorado Revised Statutes 1953, Chapter 92, Article II, "Explosives and Blasting".
 - 21 92-13-6(1)(k) Implied
 - 22 92-13-6(1)(n)(iii) No planting required on land too toxic or deficient in nutrients to be feasibly treated and natural weathering and leaching within a ten-year period will not make land plantable, operator may substitute other lands for reclamation.

- 23 92-13-5(2)(j) Timetable giving the periods of time required for the various stages of the operation.
 - 24 92-13-5(3)(a) Two copies of an accurate map; scale not less than 1"=100' and not greater than 1"=660'.
92-13-5(3)(i) Indicate general type, thickness and distribution of soil over the area in question.
92-13-5(3)(j) Show type, character, and density of present vegetation covering the area in question.
 - 25 92-13-5(3)(h) Contour lines to be in sufficient detail to portray direction and rate of slope.
 - 26 92-13-5(3)(f) Within 200 feet of all boundaries of the area.
 - 27 92-13-5(3)(k) Thickness and type of overburden to be removed.
 - 28 92-13-5(3)(k) Depth and thickness of the coal.
 - 29 92-13-5(3)(d) Including adjacent surface owners.
 - 30 92-13-5(3)(g) Implied by definition of "affected land".
 - 31 92-13-5(3)(l) Show the expected physical appearance of the area to be mined and the area of land affected, correlated to the required timetable.
 - 32 92-13-5(3)(b) Map shall be made and certified to by a registered land surveyor, professional engineer registered in Colorado, or a qualified person.
 - 33 92-13-6(1)(b) Maps shall show quarter section, section, township and county lines within scope of map, a meridian, and access from the nearest public road, name and address of operator, map scale, name of who prepared the map, the date, and the township, range and county. Maps shall show all information as required for maps submitted with application for mining permit.
 - 34 92-13-6(1)(b)
- R1- Land Reclamation Board, Department of Natural Resources, Rules and Regulations Pursuant to the Colorado Open Mining Land Reclamation Act of 1973 (1973); citations are to individual regulations.
- 1 Rule 103(B)(5) Three copies of all permit applications and related data shall be submitted to the Board.
 - 2 Rule 104 Operator shall file a reclamation map and a plan on or before July 1 of each year.
- G1- Land Reclamation Board, Dept. of Nat. Res., Guidelines for Land Stabilization and Reclamation Agreement; citations are to individual guideline clauses.
- 1 Guidelines M1-5, ST1-3
 - 2 Guideline M1 Backfill areas affected beginning at or beyond the top of the highwall and sloped to the top of the spoil bank at a maximum angle not to exceed the approximate original contour of the land.
 - 3 Guideline R2 Implied

- 4 Guideline R1
 - 5 Guideline W6 Operator shall prevent undesirable seepage.
 - 6 Guideline W1 Discharge into a waterway requires a permit from the Colorado Water Quality Control Commission.
 - 7 Guidelines B1, 2 Blasting to be conducted during daylight hours only, and in a manner to curtail shock and concussion nuisance by controlling the size of the blast. All blasting may be monitored with a seismograph to accumulate data for determining a standard.
 - 8 Guideline W3 Operator will control erosion on or along haul roads by the use of drainage ditches, culverts, or check dams.
 - 9 Guidelines A1, 2, W1 Operator must meet standards set by the Colorado Air Pollution Control Commission and the Colorado Water Quality Control Commission.
- I1- Land Reclamation Board, Dept. of Nat. Res., Application for Permit to Operate Open Mining (undated), Form LRB-1.
- 1 LRB-1 Date for which permit approval is sought, and number of acres to be affected.
 - 2 LRB-1
- I2- Land Reclamation Board, Dept. of Nat. Res., Application for Renewal Permit to Engage in New Open Mining (undated), Form LRB-5.
- 1 LRB-3 Two copies are required.
 - 2 LRB-3 Indicate area to be mined and area affected.
 - 3 LRB-3 Identify the area which corresponds with the application.
 - 4 LRB-3 Implied; all cultural features within 200 feet of all boundaries.
- I3- Land Reclamation Board, Dept. of Nat. Res., Operator's Plan of Reclamation (undated), Form LRB-5.
- 1 LRB-5
 - 2 LRB-3 Roads and access to the area from the nearest public road.

ILLINOIS

- A1- Surface-Mined Land and Conservation and Reclamation Act (as amended 1975); hereinafter cited as SMLCRA.
- 1 SMLCRA 5(e)(6) Implied by Act's definition of "overburden".
 - 2 SMLCRA 5(e)(3) Character and composition.
 - 3 SMLCRA 5(g) The department shall consider the short and long term impact of the proposed mining on vegetation, wildlife, fish, land use, land values, local tax base, the economy of the region and the State, employment opportunities, air and water pollution, soil contamination, noise pollution, and drainage.
 - 4 SMLCRA 5(g) The department shall consider feasible alternative uses for which reclamation might prepare the land to be affected and shall analyze the relative costs and effects of such alternatives.
 - 5 SMLCRA 5(e)(14) Proposed uses to be shown on a reclamation map.
 - 6 SMLCRA 5(g) Advisory Council on reclamation is consulted by the Department of Mines and Minerals.
 - 7 SMLCRA 5(e)(15) Nature and depths of coal seam to be extracted.
 - 8 SMLCRA 5(e)(9) Implied
 - 9 SMLCRA 5(e)(9)
 - 10 SMLCRA 5(e)(11), 6(b)
 - 11 SMLCRA 6(a,c,j,k,n)
 - 12 SMLCRA 5(e)(14) Implied
 - 13 SMLCRA 5(e)(5) The current assessed valuation of the lands to be affected and the assessed valuation shown by the two quadrennial assessments next preceeding the currently effective assessment.
 - 14 SMLCRA 5(a)(14)(i), 5(g) Provide timely compliance with all duties set forth in Section 6 of this Act, and provide a statement of plans to comply with requirements approved by the Department of Mines and Minerals in accordance with the Surface-Mined Land Conservation and Reclamation Act.
 - 15 SMLCRA 5(g), 6(j) Restoration for the proposed post-mining use as approved by the Department. Operator not required to create a soil condition better than what existed prior to surface mining.
 - 16 SMLCRA 6(j) To approximate original grade when reclamation is to be for row-crop agriculture purposes.
 - 17 SMLCRA 6(c) With not less than 4 feet of water on other material.
 - 18 SMLCRA 6(a,c,j)
 - 19 SMLCRA 6(k) Implied

- 20 SMLCRA 6(j) All on part of darkened surface soil shall be segregated and replaced as a final cover in the required grading. (At least 18 inches of surface soil but not less than 8 inches).
- 21 SMLCRA 6(j) The operator shall not be required to create a soil condition better than that which existed prior to surface mining.
- 22 SMLCRA 6(b) Dams to be constructed in accordance with sound engineering practices; intended post-mining use needs Department approval.
- 23 SMLCRA 6(b) If to be used for fish life, impoundment shall have minimum depths in accordance with State standards.
- 24 SMLCRA 6(b) Implied
- 25 SMLCRA 6(a)
- 26 SMLCRA 6(b) Or damage adjoining property.
- 27 SMLCRA 6(b,c)
- 28 SMLCRA 6(b)
- 29 SMLCRA 6(e) Implied
- 30 SMLCRA 6(d)
- 31 SMLCRA 6(a) Implied
- 32 SMLCRA 6(f)
- 33 SMLCRA (5)(a)
- 34 SMLCRA 6(g) Must comply fully, during mining, reclamation and after reclamation, with all requirements of the Environmental Protection Act.
- 35 SMLCRA 5(e)(14)(i)
- 36 SMLCRA 5(e)(13) If requested by the Department.
- 37 SMLCRA 5(e)(12) Existing and proposed.
- 38 SMLCRA 5(e)(10) All streams, creeks, bodies of water and underground water resources.
- 39 SMLCRA 5(e)(8)
- 40 SMLCRA 5(e)(11)
- 41 SMLCRA 5(e)(6)
- 42 SMLCRA 5(e)(7) Estimated depth to which coal deposit will be mined.
- 43 SMLCRA 5(e)(10) Implied
- 44 SMLCRA 5(e)(11) And away from the land to be affected including directional flow of water.
- 45 SMLCRA 5(e)(12)

- 46 SMLCRA 6(i) Operator shall submit to the Department no later than September 1, showing location of pit or pits by section, township, range, and county.
 - 47 SMLCRA 6(i) Implied
 - 48 SMLCRA 6(i) Showing number of acres of affected land.
 - 49 SMLCRA 6(i)
- G1- Illinois Department of Mines and Minerals Land Reclamation Division, Reclamation Plan Guidelines (undated); hereinafter cited as Guideline.
- 1 Guideline 1 Description of the area, current land uses, topography, crops, vegetation, soil types and other general information.
 - 2 Note: Outlined by guidelines.
 - 3 Guideline 3(d)(3) Include species and reasons for choice, rates of application and spacing.
 - 4 Guideline 2(d)(3)
 - 5 Guidelines 2(b)(1), (d)(2)
 - 6 Guideline 3(a)(1, 2) Describe each strata above coal seam and include chemical and physical nature; describe method of spoil placement.
 - 7 Guideline 3(c)(1)(a,d) Implied
- II- Illinois Department of Mines and Minerals, Application for Surface Mining Permit, Form MLCR 1
- 1 MLCR-1
 - 2 MLCR-1 Two copies of a U.S. Geological Survey Topographic Map (scale not specified); indicate section, township, range, and county. Map also to show a) ownership and addresses of the lands to be mined and ownership and addresses of the minerals to be mined, and b) the character and composition of the vegetation and wildlife on lands to be affected.
 - 3 MLCR-1 Indicate affected area on map.
 - 4 MLCR-1 Current and past uses to which the lands to be affected have been put for five years preceeding this application.

INDIANA

- A1- House Enrolled Act No. 1789 (as amended, 1974), Surface Mining Act; hereinafter cited as 1789.

 - 1 1789(6) (a)
 - 2 1789(6) (e)
 - 3 1789(6) (a) Grading according to the approved land use objective.
 - 4 1789(6) (b) Where not covered by impounded water, cover it to a depth of not less than two feet with earth or non-toxic overburden.
 - 5 1789(6) (a) Describe type of structures, such as sediment basins, that are planned for erosion control and give their location.
 - 6 1789(6) (b) Construct earth dams in final cuts of all operations to create lakes for water impoundment provided they do not interfere with other mining operations or damage adjoining property.
 - 7 1789(6) (b)
 - 8 1789(6) (b) Dams shall be constructed in a manner satisfactory to the Director.
 - 9 1789(6) (d) All debris, refuse, metal, and lumber shall be buried or removed from the affected area.
 - 10 1789(6) (c) Including fire lanes.
- A2- Senate Enrolled Act No. 66 to amend IC 1971, 13-4-6 concerning surface mining, Acts of 1974; hereinafter cited as 66.

 - 1 66(1) (b) (7) The application for a permit shall include the proposed method of operation, grading work and reclamation plan for the affected area, which shall meet the rules of this chapter and the rules and regulations adopted pursuant thereto.
 - 2 66(2) (c) Map to be certified by registered land surveyor.
- G1- Indiana Department of Natural Resources, Division of Reclamation Guidelines Respecting the Administration of Chapter 344 of the Acts of 1967 as Amended (Ed. 4, 1974).

 - 1 Guideline 5 Three copies of map showing proposed area to be affected, three copies of Permit Application (Form R-501), and Plan of Reclamation (Form R-501-A), with two copies notarized.
 - 2 Guideline 9 If the land use objective is other than row crop, pasture and hay, forest or rangeland.
 - 3 Guideline 9 Commission to approve alternative specifications.
 - 4 Guideline 12 Earth dams shall be in accordance with Chapter 318 of the Acts of 1945 as amended.

- 5 Guideline 10 Access roads to be constructed according to Division's "Standards for Surface Mine Grading".
 - 6 Guideline 14 Establish suitable vegetation as approved by the Division.
 - 7 Guideline 17 The approval for revegetation by the Director shall be contingent upon the physical and chemical condition of the cast overburden and acceptability of the species.
- II- Indiana Dept. Nat. Res., Div. of Reclamation Forms:
- R-501 Application for a Permit
 - R-501-A Plan of Reclamation
 - R-502 Report of Affected Area
 - R-503 Plan of Revegetation
 - R-504 Report of Reclamation
- 1 R-501-A Indicate type of topography on form.
 - 2 R-501 The boundaries of the area to be affected; names of surface owners within 500 feet of any part of the area; all utilities and other easements on the area to be affected.
 - 3 R-501 Proposed locations.
 - 4 R-501 Drainage plan away from land to be affected.
 - 5 R-501-A Describe on form.
 - 6 R-501-A Describe location of processing equipment.
 - 7 R-501-A Area and minerals to be mined including the type of topography, entire acreage of the prior use or uses of the area; describing briefly where the parting, or material between the veins, will be placed in the spoil if two or more veins of coal will be mined.
 - 8 R-501-A
 - 9 R-501-A Give average depths of the overburden and the percentage each of unconsolidated material, shale and rock.
 - 10 R-501-A Number, size and kind of equipment to be used to remove the overburden. Method of coal processing and marketing.
 - 11 R-501-A Type, location and approximate size of impoundments. Explain prevention and control of acid drainage.
 - 12 R-501-A
 - 13 R-501-A Describe types and method of vegetation.
 - 14 R-501-A Kind, rates and method of application of soil conditioners, such as lime and/fertilizer if to be used.
 - 15 R-501-A Describe structures planned for erosion control.

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- 16 R-503 Plan of Revegetation to be submitted 60 days prior to initiation of planting of seeding.
 - 17 R-501 Indicate on application.
 - 18 R-502 Two copies of a map or maps and a Report of Affected Area to be submitted within 60 days after expiration of permit.
 - 19 R-502 Section, township, range, and county.
 - 20 R-502
 - 21 R-502 Pit name or number.
 - 22 R-502 Name of operator.
 - 23 R-502 State Permit Number.
 - 24 R-502 Implied
 - 25 R-504 Report of Reclamation is to be submitted within 60 days following completion of reclamation.
 - 26 R-502 Location of all roads and ditches inside and outside of the affected area.
 - 27 R-502 Location of pit entrance roads and pit entrance roads that were graded and their distance advanced in feet.
 - 28 R-502 Total number of acres affected during permit year.
 - 29 R-504 Reclamation map required with reclamations report.
 - 30 R-504
 - 31 R-502 Surveyor's name and registration to be shown on maps.
- I2- Indiana Dept. Nat. Res., Instructions for Making Application for Approval of Construction in a Floodway (undated), with respect to the administration of Chapter 318 of the Acts of 1945, as amended (undated).
- 1 Dams Specifications and design plans must be submitted with application.
 - 2 Dams Plans and specifications must accompany application for construction in a floodway.
 - 3 Commission approval required for any construction in a floodway.

IOWA

Al- Code of Iowa, Chapter 83A, Sections 83A.1 through 83A.30 (as amended by Senate File 314, 1975); citations are to individual sections.

- 1 83A.13(1) A description of the tract or tracts of land where the site is located. The description shall include the section, township, range and county, and shall otherwise describe the land with sufficient certainty to determine the location and to distinguish the land to be registered from other lands.
- 2 83A.13(2)(c) Implied; rehabilitation plan to provide the final configuration of affected land.
- 3 83A.13(2)(a) Character and thickness of ores, or mineral solids, and overburden to be disturbed.
- 4 83A.13(2)(b) Implied; method of redistribution of the overburden.
- 5 83A.17(2)
- 6 83A.17(1) Grade spoil banks to slopes having a maximum of one foot of vertical rise for each four feet of horizontal distances except where original topography was steeper - then spoil bank shall be graded to blend with surrounding terrain.
- 7 83A.23 Department will estimate cost but may require applicant to supply data.
- 8 83A.13(2) Application to register mine site shall be accompanied by a mine and rehabilitation plan which shall include the following:
 - a) The character and thickness of the ores, or mineral solids, and overburden to be distributed.
 - b) The method of redistribution of the overburden.
 - c) The final configuration of the affected land.
 - d) Samples of the overburden.
 - e) Data upon which the mine plan is based.
- 9 83A.17(4) At least two feet of non-toxic soil.
- 10 83A.17(2) Implied; Note: Discharge permit required from Department of Environmental Quality Water Quality Management Division. Permit application lists analysis required. Water Quality Commission may require waste water construction and operation permits.
- 11 83A.19 Operator shall rehabilitate land within 24 months after filing a progress report indicating that the mining of any part of a site has been completed.
- 12 83A.13(a)(b,d) Rehabilitation plan shall include method of redistribution of the overburden and samples of the overburden.
- 13 83A.13(2)(a-e) Implied
- 14 83A.18 Operator shall file a periodic report within twelve months after original registration of the site and prior to the expiration of each subsequent twelve-month period thereafter. Forms on which periodic reports are to be filed shall be provided by the Department. This section implies that maps are required although map requirements are not specifically stated.

- 15 83A.18(2) Implied; report shall show the extent to which removal of mineral products from all or part of the affected land has been completed.
 - 16 83A.18(1) Implied; report shall show the location and extent of all land on the site affected by surface mining during the period covered by the report.
- A2- Iowa Senate File 314, Sections 1 through 10, An Act Relating to the Regulation of Surface Coal Mining (May, 1975); hereinafter as SF 314.
- 1 SF 314(2)(2) Implied
 - 2 SF 314(2)(4)
 - 3 SF 314(2)(3) Must be kept from contamination by acid or toxic material from other strata or drainage.
 - 4 SF 314(2)(3)
 - 5 SF 314(2)(5)(a) Construction shall be designed to achieve necessary stability, and at a minimum, shall be compatible with that of structures constructed under Public Law 83-566 (Title 16, U.S. Code, Sec. 1006).
 - 6 SF 314(2)(5)(a) Implied
 - 7 SF 314(2)(5)(b) Leachate will not pollute surface or ground water.
 - 8 SF 314(2)(2) Plant succession shall be equal in extent of cover to the natural vegetation.
 - 9 SF 314(2)(2)
 - 10 SF 314(2)(2) May be used where necessary to achieve rehabilitation work required by Department.
 - 11 SF 314(2)(2) If effectiveness of revegetation cannot be determined within 12 months expiration period, department shall extend time for rehabilitation as necessary to meet requirements.
 - 12 SF 314(2)(1) This section imply that mining and reclamation maps are required. Note: The Department of Soil Conservation, Division of Mines and Minerals, has stipulated that maps are required and the Department should be contacted to determine the required information to be shown on the maps. The Department also requires that the maps be prepared by a registered professional engineer.
- R1- Iowa Natural Resources Council, Proposed Rules, Chapters 1 through 12, Rules 580-1.1 through 580-12.16 (July 30, 1975); citations are to individual rules.
- 1 580-5.3(1)(c)(455A) Permit required from Iowa Natural Resources Council if impoundment will store more than 18 acre-feet of water.
 - 2 580-5.1(455A) Must have approval of Iowa Natural Resources Council if constructed in a floodway or on a flood plain.

KANSAS

- Al- Kansas Statutes Annotated, Sections 49-401 through 49-424 (1968 Supplement), known as the "Mined-Land Conservation and Reclamation Act"; citations are to individual sections.
- 1 49-406(d) Application for a mining permit shall be accompanied by a plan of reclamation.
 - 2 49-409 Implied; revegetation shall conform to the approved land-use objectives as stated in the approved plan of reclamation.
 - 3 49-406(c)(8) A verified statement by the operator containing the proposed method of operation, grading, reclamation and conservation plan for the area to be affected.
 - 4 49-406(c)(7) Drainage plan on and away from area to be shown on map.
 - 5 49-406(c)(8) A verified statement by the operator that the operations will meet the requirements of this act, or any rule or regulation promulgated hereunder.
 - 6 49-408 All land affected by surface mining shall be graded to rolling topography with a maximum of 25 percent grade.
 - 7 49-408(a) Cover with at least two feet of compacted non-acid bearing and non-toxic materials, or with a permanent water impoundment.
 - 8 49-408(f)
 - 9 49-408(d) Implied
 - 10 49-408 Water impoundments are encouraged.
 - 11 49-408 Acid mine drainage shall be sealed or impounded if encountered.
 - 12 49-408(c) Implied
 - 13 49-408(f) Implied
 - 14 49-408(e) Remove or bury all metal, lumber, and other refuse resulting from the operation.
 - 15 49-413 Planting report to be filed on a form furnished by the board when planting of a permit area is completed.
 - 16 49-406(a) Permit valid for one year from date of issuance.
 - 17 49-406(c)(8) A verified statement by the operator containing the proposed method of operation, grading, reclamation and conservation plan, including dates and approximate time of completion shall be submitted.
 - 18 49-406(b)(1), (c)(1-3) Two copies of a U.S.G.S. topographic map locating the land to be affected, the name of the applicant and date, shall be submitted. Also, an enlarged U.S.G.S. topographic map with a scale not less than 400 feet to the inch or larger than 660 feet to the inch identifying the area, showing boundaries and names of surface owners of land to be affected and boundaries and names of surface owners within 500 feet of the area to be affected.

- 19 49-406(c)
 - 20 49-406(c)(4) On and within 500 feet of the area to be affected.
 - 21 49-406(b)(1) U.S.G.S. topographic map shall show the course which would be taken by drainage from the affected area to the nearest stream or streams to which such drainage would normally flow.
 - 22 49-406(c)(5) Enlarged plan view of area to be affected and the total number of acres involved.
 - 23 49-406(c)(5)
 - 24 49-406(c)(2)
 - 25 49-406(c)(7) Drainage plan on and away from land affected shall show directional flow of water, constructed drainways, natural waterways used for drainage, and streams or tributaries receiving the discharge.
 - 26 49-406(c) The enlarged U.S.G.S. topographical map shall be prepared and certified by a professional engineer.
 - 27 49-415 Reclamation report to be submitted within 60 days after expiration date of permit stating the exact number of acres affected by the operation. A copy of the map filed with the application showing any revisions necessary as a result of the operations shall accompany the report.
 - 28 49-406(a) Within 30 days after the end of the calendar year, the operator shall file an annual statement setting forth the full amount of coal mined from each source or deposit and to identify the specific source or deposit from which taken.
 - 29 49-406(c) It is assumed that the reclamation map, included in the yearly reclamation report, would be required to be prepared and certified by a professional engineer since the amount of bond released to the operator depends upon this report.
- A2- Kansas Statutes Pertaining to Water Pollution Control, Bulletin No. 1-14.2, Department of Health and Environment (July, 1974); citations are to individual sections of the statutes.
- 1 55-128 No exploration plan or permit required, however, a notice of intent to drill exploration holes shall be submitted to the state corporation commissioner prior to drilling. Notice of intent shall include a description of the area to be explored, the type of drilling contemplated, and such other information as the commission may require. The corporation commission shall determine the amount of pipe necessary to protect all useable water, and shall notify the submittee of the notice of intent before drilling is commenced.
 - 2 55-128
 - 3 55-128 It shall be the duty of the party responsible for drilling to plug the drill holes in such a manner as to properly protect all water bearing formations.

- 4 55-128 Within 30 days after plugging drill holes, the party responsible therefor shall file an affidavit with the corporation commission setting forth the date of drilling, location of the drill holes, and the method used in the plugging of such holes. In the case where numerous holes have been drilled within a specified area, such affidavit need not be filed until 60 days after the holes within the specific plotted area have been completed.
 - 5 55-128 Implied
 - 6 55-128 Implied; holes in such specific plotted area.
- R1- Mined-Land Conservation and Reclamation Board of Kansas, Rules of Practice and Procedure, Regulations 47-1-1 through 47-3-3 (as amended 1975); citations are to individual regulations.
- 1 47-3-1(3)(a) Reclamation plan shall include information and data showing pre-mining conditions as to soil horizons and soil structures.
 - 2 47-3-3(4)(a)(1) For the purpose of the revegetation plan, proposed land use shall be categorized as grassland, cropland, woodland, and water impoundment.
 - 3 47-3-1(3)(b) Specify in detail the manner in which the requirements of the act pertaining to reclamation will be met, subject to the inclusion of the revegetation plan described in the regulations.
 - 4 47-3-3(2) Section lists grading specifications for rolling type terrain.
 - 5 47-3-3(4)(a) Before November 30 of the year preceding planting, a revegetation plan for each permit area will be submitted to the Board for approval, and when approved, shall become part of the reclamation plan.
 - 6 47-3-3(3) Surface soils shall be capable of sustaining vegetation of at least the variety and quality of that sustained prior to mining operations.
 - 7 47-3-3(3) Implied
 - 8 47-3-3(3) Surface materials shall be guarded from erosion and pollution.
 - 9 47-3-3(5)(d) Conformity with the regulations of the Chief Engineer, Division of Water Resources, State Board of Agriculture, shall be required.
 - 10 47-3-3(5)(b) Undesireable seepage into and seepage control measures required, away from the impoundment shall be prevented.
 - 11 47-3-3(5)(b) Implied
 - 12 47-3-3(3)
 - 13 47-3-3(5)(d) Implied
 - 14 47-3-3(4)(a) Approval of revegetation plan is contingent upon inspection and Board's approval of grading, backfilling and drainage, and the receipt of the results of sufficient and representative soil samples to indicate that the proposed revegetation is adaptable to existing soil conditions (based on chemical and physical properties of the soils).

- 15 47-3-3(4)(a)(2) Revegetation plan shall include detailed plan, including species, numbers, rates, preparation, method and timing of seeding and planting.
 - 16 47-3-3(4)(c) An inspection by the Board shall be made to evaluate the extent of the vegetative cover after the vegetation has survived at least one growing season and one winter.
 - 17 47-3-1(2) Copies of permits to alter water courses, roads, and utilities must be submitted with application.
 - 18 47-3-1(1), (1)(a,b) Maps shall be U.S.G.S., 7-1/2 minute topographic quadrangles, if available, Kansas State Highway Commission maps at a scale of not less than 1 inch to the mile prepared within the last 5 years may be substituted when U.S.G.S. maps are not available. The enlarged U.S.G.S. map may be substituted by similar scale maps prepared by photogrammetric methods from aerial photographs of the U.S.G.S. map is not available, map size shall be 24 inches by 36 inches, and color coded symbols are stipulated by the Board.
 - 19 47-3-1(1)(b)(3) Including proposed access and haulage roads.
 - 20 47-3-1(1)(b)(4)
 - 21 47-3-3(4)(a), (a)(1) Revegetation plan shall be submitted before November 30 of the year preceding planting and shall contain a revegetation map which shall conform to the requirements of the enlarged map accompanying the mining permit application. The map shall be color coded as stipulated by the Board and shall show permit boundaries, roads left in the area, proposed areas for grassland, cropland, woodland, and proposed water impoundments and drainages.
- II- State Corporation Commission, Mined-Land Conservation and Reclamation Board of Kansas, Application for Mining Permit (undated); no form number.
- 1 Indicate acreage of current land use on application.
 - 2 Indicate principal seam(s) and thickness(es) on application.
 - 3 Indicate various operational procedures on application.
 - 4 Indicate acreage to be reclaimed as terraces, approximate original contour, and water impoundments on application.
 - 5 Indicate total acreages for operations and access roads on application.

KENTUCKY

- Al- Kentucky Revised Statutes, Chapter 350, Strip Mining
(19__); hereinafter cited as KRS 350.
- 1 KRS 350:060(3) Two copies of enlarged USGS topographic map showing the location of proposed affected land and area within 500 feet of such affected land, scale not less than 400 feet or more than 600 feet to the inch.
 - 2 KRS 350:060(3), (4)
 - 3 KRS 350:060(4)(e)
 - 4 KRS 350:060(4)(h) Drainage plan on and away from the area of land affected including direction of flow.
 - 5 KRS 350:060(4)(f) And total number of acres involved.
 - 6 KRS 350:060(4)(c) Within 500 feet of the proposed area.
 - 7 Locations as shown on maps is implied by Statutes and Rules but not specifically stated.
 - 8 KRS 350:060(4)(h)
 - 9 KRS 350:060(4)(c) Boundaries of surface properties and names of owners of affected land and land within 500 feet of such area.
 - 10 KRS 350:060(6)
 - 11 KRS 350.010(4)(a),(6) A transportation plan which shall set forth the portions of State Primary Road System, if any over which mineral transportation is proposed.
 - 12 KRS 350:060(7) Detailed plans or proposals showing the method of operation and reclamation.
 - 13 KRS 350:060(7)
 - 14 KRS 350:093(1) Complete backfilling shall be required when method of operation does not produce a bench, beginning at or beyond the top of the highwall and sloped to toe of the spoil bank.
 - 15 KRS 350:090(2)(a) Cover with at least 4 feet of compacted non-acid bearing and non-toxic fill.
 - 16 KRS 350:093(3) All impoundments must be approved by the Division.
 - 17 KRS 350:090(2)(b)
 - 18 KRS 350:090(2)(c) Implied
 - 19 KRS 350:093(1)
 - 20 KRS 350:090(2)(b)
 - 21 KRS 350:100(2) If investigation establishes that planting of certain affected area may not be successful, the division may authorize the operator to defer such planting until the soil has become suitable. Yearly report shall be filed indicating the soil condition.

- 22 KRS 350:100(1) Begin reclamation as soon as possible and complete such reclamation within 12 months after the permit has expired except when delay is approved due to existing conditions.
 - 23 KRS 350:120 Report to be submitted within 60 days following expiration of permit, including copy of map filed with original application.
 - 24 KRS 350:120
- R1- 402 Kentucky Administrative Rules 1.025 - 1.060, Surface Mine Regulations (July 2, 1975); citations are to individual rules.
- 1 402 KAR 1:055(2)(1) Sediment control facilities.
 - 2 402 KAR 1:055(2)(1)
 - 3 402 KAR 1:055(3) Implied
 - 4 402 KAR 1:040(1)
 - 5 402 KAR 1:035(1) Statement of plans to comply with requirements set forth in KRS 350:090.
 - 6 402 KAR 1:040(1)(1)
 - 7 402 KAR 1:040(1)(1)(a,b) Implied
 - 8 402 KAR 1:030(3)(1)(m)
 - 9 402 KAR 1:030(3)(1)(b) Surface area when filled shall not be less than one-half acre.
 - 10 402 KAR 1:030(1)(k) Embankment section shall be approved by Division of Water Resources.
 - 11 402 KAR 1:055(3) Implied
 - 12 402 KAR 1:055(2)(1)
 - 13 402 KAR 1:060(1)(4)
 - 14 402 KAR 1:060(1)(1)
 - 15 402 KAR 1:050(1) Blasting to be carried out according to Kentucky State laws and Regulations Governing Explosives and Blasting, but this in no way is intended to relieve the operator from any responsibility or liability under any other laws.
 - 16 402 KAR 1:025(1) Entire section.
 - 17 402 KAR 1:025(1)(2)(a) Any channel changes shall be approved by the Division of Water Resources.
 - 18 402 KAR 1:040(1)(1)
 - 19 402 KAR 1:040(1)(5) Native trees preferred, grasses and legumes must be approved by the Division of Reclamation.
 - 20 402 KAR 1:040(1)(5) Tree seedlings acclimatized to Kentucky conditions may be used.
 - 21 402 KAR 1:040(5), (5)(1) Permanent vegetation standards: 70 percent ground cover for surface mined areas and 80 percent if approved for planting only grasses and legumes or 600 or more living woody plants per acre.

- 22 402 KAR 1:055(2)(3)
- I1- Kentucky Department of Natural Resources and Environmental Protection, Division of Reclamation, Revegetation Plan (1973); Form DR-2-A.
 - 1 DR-2-A To be described on Revegetation Plan.
 - 2 DR-2-A Indicate on Revegetation Plan.
 - 3 DR-2-A Implied
- I2- Kentucky Department of Mines and Minerals, 1975 License Application - Surface Mine, Form AL-75-SUR.
 - 1 AL-75-SUR Name of engineer who certified map.

MARYLAND

- R1- Maryland Agency Rules, Department of Natural Resources, Sections 08.06.01 through 08.06.05 (1973); citations are to individual sections.
- 1 08.06.01.15 Except landowners in fee, notice of intent to prospect must be given to the Maryland Bureau of Mines and application for a Prospecting Permit must be submitted. Application shall include the name and address of company or individual, written consent of landowner, area disturbed in each prospect, depth of overburden in each prospect, name and thickness of seam, and a map.
 - 2 08.06.01.15(F) Prospects shall be limited to a total of one-half acre.
 - 3 08.06.01.15(F) Prospects shall be backfilled within thirty days and revegetated as soon as possible unless extension is given by the Bureau of Mines.
 - 4 08.06.01.15(F) A U.S.G.S. 7-1/2 minute series topographical map, enlarged to a scale of 1 inch equals 500 feet shall be submitted with application. Map shall show location of each prospect and property line, adjacent ownership, and route of access.
 - 5 08.06.01.04
 - 6 08.06.01.11
 - 7 08.06.01.16(B) Recommended by State Forester.
 - 8 08.06.01.11 All backfilling to be done by grading to either approximate original contour or terracing, and conducted according to the stipulations of "current grading".
 - 9 08.06.01.07 Minimum of 2 feet of clean overburden.
 - 10 08.06.01.11, .16 Implied by grading and vegetation requirements.
 - 11 08.06.01.09 Required unless exception granted.
 - 12 08.06.02.02
 - 13 08.06.01.05 Implied
 - 14 Note: NPDES permit required for discharge into natural drainways.
 - 15 08.06.01.06 If deep mine openings are cut they must be sealed under direction of Bureau of Mines and Water Resources Administration.
 - 16 08.06.01.07 Implied
 - 17 08.06.01.11(B) Implied
 - 18 08.06.01.09 Implied
 - 19 08.06.03.07 Refrain from augering within 200 feet.
 - 20 08.06.01.08 All trees and shrubs shall be cut and removed from the affected area and shall be buried in bottom of pit.

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- 21 08.06.01.07 Spread refuse, all toxic and acid-forming materials along bottom of pit close to base of spoil pile along low wall side of cut. Immediately cover with a minimum of 2 feet of clean overburden. Top surface of cover shall be so graded that water will run off rather than soak into overburden.
 - 22 08.06.05.04 Prior to mining operations, written notification of blasting shall be given by certified mail or the equivalent to all occupants within 1000 feet of any part of the proposed operation.
 - 23 08.06.05.09(D) Records of each blast shall be kept in a log maintained for three years.
 - 24 08.06.05.09 Blasting shall be done in accordance with established principles to prevent vibration damage to structures. Formula given to limit pounds of explosive detonated at any one time.
 - 25 08.06.01.16(B) Following a site inspection, the State Forester shall submit a report to the operator including a sketch of the affected area, pH values of the area to be planted, species and number of trees, shrubs, or grasses recommended for planting, spacing of planting, and specific time for planting.
 - 26 08.06.01.02(A) Two copies of U.S.G.S. 7-1/2 minute topographic quadrangle map enlarged to a scale of 500 feet to the inch or suitable aerial photographs enlarged to a scale of 660 feet to the inch. This Application Map shall also show applicant's name, permit number, map date, location of tract or tracts with landowners name, boundaries of the area to be affected, nearest municipality, proposed access from nearest public highway, and the angle of original slope that would be affected within each 500-foot segment of the operation beginning at starting point of the operation.
 - 27 08.06.01.02(A) (1)
 - 28 08.06.01.02(B) (1) On or adjacent to the area.
 - 29 08.06.01.02(B) (1) Drainage above and below area.
 - 30 08.06.01.02(B) (1)
 - 31 08.06.01.04(C)
 - 32 08.06.02(B) (2) Annual Mining and Reclamation Progress Report Map shall show the same information as required for the Application Map (mining plan map); and in addition, shall show the area affected and reclamation progress during the permit year.
 - 33 08.06.01.02(B) (2)
- G1- Maryland Land Reclamation Committee, Guidelines on Affected Lands Related to Surface Mining Operations. (1971); citations are to individual guidelines.
- 1 Guideline IV(1)
 - 2 Guidelines II(2, 5)
- I1- Maryland Geological Survey - Bureau of Mines, Application for Prospecting Permit (undated); no form number.

- 1 Boreholes shall be plugged or covered before leaving site.
- I2- Maryland Geological Survey - Bureau of Mines, Application for Open Pit Mining Permit (Rev. 5/75); no form number.
- 1 Indicate on application.
 - 2 Indicate thickness of coal seam on application. An analysis of the coal is also required.
 - 3 Describe method of operation and attach to application.
 - 4 Indicate estimated life of operation and total acreage to be affected on application form.
 - 5 Describe detailed plan as to manner, time and distance for backfilling, drainage, planting, and general reclamation of area affected.
 - 6 Describe nature of overburden on application form.
 - 7 Two overlays or separate maps of water handling plan are required. Also, a color coded legend is prescribed by the Department for all maps.
 - 8 Cross sections of backfilling.
 - 9 Result of test borings and locations.
 - 10 Placement of cuts, spoils, and top soiling materials on application map.
 - 11 Implied; water handling plan should show this.
 - 12 Map shall be certified by competent engineer, surveyor, or other person and approved by director.
 - 13 A color coded legend, including symbols, is prescribed by the Department.
- I3- Maryland Geological Survey - Bureau of Mines, Detailed Mining and Reclamation Plan (5/75), with Open Pit Mining Equipment tally sheet; no form numbers.
- 1 Describe proposal for mining and reclamation as to manner, time, and distance on application form.
 - 2 List quantity, type, size (cubic yard capacity) and model numbers of mining equipment and attach to application.
- I4- Procedure for Permitting New Coal Mining Operations.
- 1 Mining and reclamation plans to be reviewed by Planning and Zoning Commission.
 - 2 Water Resources Administration administers NPDES permits and requires discharge permit to accompany mining permit application.

MISSOURI

- A1- Revised Statutes of Missouri, Chapter 444, Sections 444.500 to 444.755, Rights and Duties of Miners and Mine Owners, Reclamation of Mining Lands (1971); citations are to individual sections.
- 1 444.750 Commission encourages land use planning and development of reclamation plans for recreational facilities.
 - 2 444.560 Operator must submit with application a verified statement setting forth the proposed method of operation, grading, reclamation and conservation plan for the affected area.
 - 3 444.560 Implied by "method of operation".
 - 4 444.550(2)(6) Drainage plan to be submitted in map form along with construction plans for any impoundments.
 - 5 444.610(1)(1,3,4), .620(1)
 - 6 444.610(1)(8) Operator, with approval of the commission, shall sow, set out, or plant vegetation appropriate to the type of reclamation designated by the operator.
 - 7 444.560 The application for a permit shall be accompanied by a reclamation plan meeting, and a verified statement by the operator stating that the operations will meet the requirements of sections 444.500 to 444.755 and any rule or regulation promulgated under them.
 - 8 444.610(1)(1,3)
 - 9 444.610(1)(6) Cover depth shall not be less than four feet of vegetation supporting soil, or a permanent water impoundment.
 - 10 444.610(1)(5) Operator may construct earth dams to form lakes in the final box cut provided that the formation of lakes shall not interfere with underground or other mining operations or damage adjoining property.
 - 11 444.550(2)(6) Implied; submit construction plans with application and mining plan maps.
 - 12 444.610(1)(6) Prevent inflow to impoundments in amounts to cause significant kills of fish or animals downstream.
 - 13 444.610(1)(6) Implied
 - 14 444.610(1)(6) Gob shall be covered with at least four feet of earth or spoil material capable of supporting vegetation.
 - 15 444.610(1)(1)
 - 16 444.610(1)(8) Implied; all affected land shall be revegetated.
 - 17 444.610(1)(1,6)
 - 18 444.610(1)(8) Vegetation shall be based upon the recommendations of technically trained foresters and agronomists.
 - 19 444.610(2) Seeding and planting shall be completed within 24 months after the expiration date of the permit with survival of such supporting vegetation by the second growing season.

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- 20 444.560 Include dates and approximate time of completion.
 - 21 444.550(2) Application shall be accompanied by a map in a scale and form specified by the commission. Additional information shall include: (1) identification of the area to correspond with the application, (2) boundaries of surface properties and owners names of land to be affected and names of surface owners within 660 feet of land to be affected, (3) boundaries of land to be affected and total number of acres involved in affected area, (5) map preparation date, the north point and the section, township, range, and county, and (7) such other information that the commissioner may require.
 - 22 444.610(1)(7) Operator shall designate on map which parts of company owned affected areas shall be reclaimed for forest, pasture, crop, horticulture, homesite, recreational, industrial or other use including food, shelter, and ground cover for wildlife.
 - 23 444.550(2)(3) On and within 660 feet of the affected area.
 - 24 444.550(2)(6) Drainage plan on and away from the area affected, showing the directional flow, and the nearest streams or tributaries receiving the discharge or overflow.
 - 25 444.550(2)(4)
 - 26 444.550(2)(2) Boundaries, if known, within 660 feet of any part of land to be affected.
 - 27 444.550(2)(6)
 - 28 444.550(2)(6) Implied
 - 29 444.550(2) Map to be prepared and certified by a professional engineer.
 - 30 444.630(1) Operator shall file a report with the commission within 60 days after expiration date of the permit stating the exact number of acres affected by the operation, the extent of reclamation already accomplished, and other such information as may be required by the commission.
 - 31 444.630(2) Operator shall file grading report within 30 days after grading is completed or within 60 days after twelve months from the date of expiration of a permit stating the extent of grading.
 - 32 444.630(3) Operator shall file a planting report within 30 days after revegetation is completed or is to be completed, showing the extent of revegetation (A map is implied).
 - 33 444.630(1)
- II- Missouri Department of Natural Resources, Land Reclamation Commission, Application for Permit to Operate Surface Mine, Form 3.
- 1 Form 3 Describe affected area prior to mining: (Topography, Vegetation, Percent Slope).
 - 2 Form 3 Designate proposed use and estimated acreage from categories listed on application.
 - 3 Form 3 Average estimated reclamation cost per acre.
 - 4 Form 3 Indicate affected acreages on application.
 - 5 Form 3 Include an approximate reclamation schedule on the application.

MONTANA

- Al- Revised Code of Montana, Sections 50-1034 to 1061 (Montana Session Laws 1973, 1975) known and cited as the Montana Strip and Underground Mine Reclamation Act; citations are to individual Sections.
- 1 50-1041(2) Prospecting permit application shall include a prospecting map and prospecting reclamation plan substantially of the same character as required for a surface mining map and reclamation plan under this act.
 - 2 50-1042(2) (a)
 - 3 50-1042(4)
 - 4 50-1041(2)
 - 5 50-1041(7) The holder of a prospecting permit shall file with the Department the same progress reports, maps, and revegetation progress reports, as are required of strip mining operators under this act.
 - 6 50-1039(3) (b-c) And surface boundaries and names of owners within 1000 feet of any part of area to be affected.
 - 7 50-1039(3) (c)
 - 8 50-1039(3) (f)
 - 9 50-1039(2) (j) Two copies each of two sets of geologic cross-sections depicting thickness and geologic character of all known strata including topsoil. Each set shall depict sub-surface conditions at 500 feet intervals, or less, and shall be at 90 degrees of each other.
 - 10 50-1039(3) (i)
 - 11 50-1039(2) (j)
 - 12 50-1039(2) (j) Implied
 - 13 50-1039(3) (d)
 - 14 50-1039(3) (b) Within 1000 feet of any part of area affected.
 - 15 50-1039(3) (f) Implied
 - 16 50-1039(3) (g)
 - 17 50-1039(3) (h)
 - 18 50-1039(3) (g) Implied
 - 19 50-1039(3) (l) Certification shall be signed and notarized.
 - 20 50-1039(2) (i) Annual precipitation.
 - 21 50-1039(2) (i)
 - 22 50-1039(2)
 - 23 50-1039(2) (j) An analysis and summary of the chemical properties for acidity, sulphur content, trace mineral elements as well as British thermal unit per pound.
 - 24 50-1039(4) Detailed plans or proposals for revegetating.

- 25 50-1039(5) Bond required, but in no event shall it be less than the total estimated cost to the state of completing the work described in the reclamation plan.
 - 26 50-1039(4) Detailed plans or proposals for the operation and reclamation of the affected area shall accompany the permit application, and shall meet the requirements of, and the rules adopted under "The Montana Strip and Underground Mine Reclamation Act".
 - 27 50-1044(3) Topsoil shall sustain vegetation of quality and variety it sustained prior to removal, and returned as the top layer after backfilling and grading operations have been completed.
 - 28 50-1043(2)(g)
 - 29 50-1043(1)
 - 30 50-1043(2)(b)
 - 31 50-1043(2)(a)
 - 32 50-1047(3) Remaining bond will not be released prior to a period of 5 years from initial planting.
 - 33 50-1049 Implied
 - 34 50-1039(3)(e)
 - 35 50-1039(3)(d) Implied
 - 36 50-1039(3)(1)
- A2- Revised Code of Montana, Sections 50-1601 to 1617 (Montana Session Laws 1974), known and cited as The Strip and Underground Mine Siting Act; citations are to individual Sections.
- 1 50-1606 Mine site location permit required for new strip mine; allows preparatory work only.
- A3- Senate Bill No. 0404 (Montana S.L. 1973), known and cited as The Strip Mined Coal Conservation Act; hereinafter cited as SB 0404.
- 1 SB 0404(5)(1) Department shall review mining plan for the purpose of determining whether waste will occur.
- R1- Montana Administrative Code, Sections 26-2.10(10)-S10190 to S10350 (1973), Rules and Regulations Pursuant to The Montana Strip and Underground Mine Reclamation Act; citations are to individual Sections.
- 1 26-2.10(10)-S10270(4)(a) Requires: Listing, location and description of archaeological, historical, ethnological, and cultural values of area to be affected.
 - 2 26-2.10(10)-S10270(4)(b) Comprehensive listing, location and description of significant or unique scenic and/or geological formations or sites.
 - 3 26-2.10(10)-S10270(4)(c) Narrative explanation that permit area does not possess special, exceptional, critical, or unique characteristics or that surrounding lands do not possess any of above characteristics that would be affected by mining.

- 4 26-2.10(10)-S10280(1)(c) Narrative description of significant fish and wildlife species in area (include rare and endangered species). Also archeological features.
- 5 26-2.10(10)-S10280(1)(f)
- 6 26-2.10(10)(1)-S10280(f)(vii)
- 7 26-2.10(10)-S10280(5)(g) Trees and vegetation may be cleared to width necessary to maintain slope stability and serve traffic needs.
- 8 26-2.10(10)-S10280(8)(d) Topsoil removal to precede prospecting operations where excavation required. Must reseed according to Department recommendations.
- 9 26-2.10(10)-S10280(8)(d) Topsoil removal required prior to excavation activities.
- 10 26-2.10(10)-S10280(8)(e) Recommendations of the Department shall be followed.
- 11 26-2.10(10)-S10200 Indicate on application.
- 12 26-2.10(10)-S10280(1)(e)(i) U.S.G.S. Topographic quadrangle maps are preferred (Number of maps not specified).
- 13 26-2.10(10)-S10280(1)(e)(ii) Including size and average depth; and the drill mediums to be used.
- 14 26-2.10(10)-S10280(1)(e)(iii)
- 15 26-2.10(10)-S10280(1)(e)(ii)
- 16 26-2.10(10)-S10280(3) Progress reports required 60 days prior to permit expiration.
- 17 26-2.10(10)-S10280(3)(b),(d) Maps to be updated to indicate location of all drill rigs and/or test equipment, and road construction.
- 18 26-2.10(10)-S10280(3)(a)
- 19 26-2.10(10)-S10280(1)(e)(iii)
- 20 26-2.10(10)-S10280(2) Applicant shall furnish Department stratigraphic findings, test hole logs, and related data.
- 21 26-2.10(10)-S10280(6)(e)
- 22 26-2.10(10)-S10280(2) Implied
- 23 26-2.10(10)-S10330(1)(b)(e)
- 24 26-2.10(10)-S10330(1)(c)(i)
- 25 26-2.10(10)-S10300 Interpretation of Section indicates that "baseline studies" are required for proposed operations longer than one year's duration, and
- 26 26-2.10(10)-S10300(2)(a)(i-ii) Soil survey map, sampling, and analyses: Chemical (pH, conductivity, sodium absorption ratio, cation exchange capacity) and mechanical analysis.
- 27 26-2.10(10)-S10300(2)(b) Community types to be based on 2 or more dominants. Discuss environmental factors controlling or limiting distribution of species to be correlated with Soil Survey. Vegetation map also required.

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- 28 26-2.10(10)-S10300(2)(c) Wildlife survey including population density estimates where practicable for birds, mammals, reptiles and amphibians, season of use by species for winter concentrations, fawning or calving areas, nesting or brooding areas in the area affected.
- 29 26-2.10(10)-S10310(1)(L) Reclamation equipment to be used in grading and highwall reduction.
- 30 26-2.10(10)-S10310(1)(a-g)
- 31 26-2.10(10)-S10310(1)(e)
- 32 26-2.10(10)-S10310(1)(b) Requires cover of at least 8 feet of vegetation supporting soil.
- 33 26-2.10(10)-S10340(1-2)
- 34 26-2.10(10)-S10340(2)
- 35 26-2.10(10)-S10340(6)(c)
- 36 26-2.10(10)-S10330(1)(b)(iv) Permanent impoundments not allowed unless approved by Department.
- 37 26-2.10(10)-S10330(1)(b)(i) Operator must submit design specifications to the Department.
- 38 26-2.10(10)-S10330(1)(b)(iv)
- 39 26-2.10(10)-S10330(1)(b)(i)
- 40 26-2.10(10)-S10330(1)(a) Non-degradation of waters. As relates to interstate streams information will be provided the Administrator of the EPA to allow Administrator to discharge responsibilities under the Federal Water Pollution Control Act.
- 41 26-2.10(10)-S10330(1)(b)(vii),(viii) All water discharges from mine site must be treated to assure the pH is no less than 6.0 or greater than 9.0. Total alkalinity must exceed total acidity. Cannot contain iron concentration in excess of seven (7) milligrams/liter.
- 42 26-2.10(10)-S10330(1)(c)(iv) All drainage from active mine area shall exit through impoundment or treatment facilities.
- 43 26-2.10(10)-S10330(1)(b)(viii) Maximum allowable turbidity increase to streams is 10 J.C.U. except that 4 hours following major precipitation event the discharge shall not contain suspended sediments in excess of 500 J.C.U. above normal and not over 100 J.C.U. above normal 24 hours thereafter.
- 44 26-2.10(10)-S10330(1)(b)(i)
- 45 26-2.10(10)-S10310(1)(e)
- 46 26-2.10(10)-S10340(5) Implied
- 47 26-2.10(10)-S10320(1)
- 48 26-2.10(10)-S10320(7) Within 1-mile radius, in writing.
- 49 26-2.10(10)-S10320(14) Required contents of log described.

- 50 26-2.10(10)-S10320(15-17)
 - 51 26-2.10(10)-S10310(4)(a), (f) All access roads and railroad loops to be stabilized by vegetative procedures.
 - 52 26-2.10(10)-S10310(4)(d)
 - 53 26-2.10(10)-S10350(1)
 - 54 26-2.10(10)-S10350(2)
 - 55 26-2.10(10)-S10350(11) Department will inspect seedings annually.
 - 56 26-2.10(10)-S10190 Indicate on permit application form.
 - 57 26-2.10(10)-S10330(1)(a) Law provides for non-degradation of waters.
 - 58 26-2.10(10)-S10330(1)(b)(vii), (viii)
 - 59 26-2.10(10)-S10270(8) Two copies of a 7.5 minute U.S.G.S. quadrangle map, or equivalent, shall be submitted within 60 days after expiration of a permit. Scale shall be not less than 400 feet or greater than 660 feet to the inch. The map shall be a copy of the original map filed with the original application showing changes as a result of the operation.
- R2- Montana Administrative Code, Sections 26-2.10(18)-S10380 to S10410 (1975), Rules and Regulations Governing The Montana Strip Mine Siting Act; citations are to individual Sections.
- 1 26-2.10(18)-S10400(A)(3), (B)(1) Three (3) copies of a current 7.5 minute U.S.G.S. topographic map are required.
 - 2 26-2.10(18)-S10400(B)(11) A recent aerial photo of the proposed mining area with scale one inch equals 660 feet.
 - 3 26-2.10(18)-S10400(B)(1)
 - 4 26-2.10(18)-S10400(C)(1)(b)(6) A listing, location, and description of the archeological, historical, ethnological and cultural values of the affected area; locate values on accompanying maps when possible.
 - 5 26-2.10(18)-S10400(G)(2)(a)
 - 6 26-2.10(18)-S10390(A)(1) All non-existing or non-operating mines at the time of passage of Senate Bill 681.
 - 7 26-2.10(18)-S10400(F)(1)(a)
 - 8 26-2.10(18)-S10400(F)(1)(a-g)
 - 9 26-2.10(18)-S10400(G)(3)(b)
 - 10 26-2.10(18)-S10400(f)(1)(b) Estimated acreage to be disturbed yearly.
 - 11 26-2.10(18)-S10400(G)(2)(e)
- R3- Montana Administrative Code, Sections 26-2.10(14)-S10360 to S10370 (1973), Rules and Regulations Concerning The Strip Mined Coal Conservation Act; citations are to individual Sections.
- 1 26-2.10(14)-S10370(1)(c) Detailed explanation required for any coal to be left unmined.

NEW MEXICO

A1- Senate Conservation Committee Substitute for Senate Bill 58, Sections 1 through 22 (Montana Session Laws, Chapter 68, 1972), referred to as the "Coal Surfacemining Act"; hereinafter cited as SB 58.

1 SB 58(9) (A) (2)

R1- Regulations of the Coal Surfacemining Commission, Sections 1 through 15 (January 3, 1973); citations are to individual Sections.

1 2(B) Mining plan to include a description of the land to be stripmined.

2 2(K,O) Description of the soil types, including depths and analyses of the soils in conformance with professionally accepted standards.

3 2(R) Description of existing vegetation.

4 2(I) Available monthly temperature ranges, maximum and minimum rainfall on monthly basis plus annual rainfall for past 10 years.

5 2(I) Implied

6 2(I) Summary of the wildlife data.

7 2(H) Include current and planned uses of surrounding land which by proximity may influence the choice of end use in the affected area.

8 2(H)

9 2(Q,S) Detailed proposal and time schedule for grading and revegetating the affected area.

10 2(L) Requires range of depths to be mined. Nothing on coal reserves or method of mining is required in the plan.

11 2(M) Estimate of the volume of overburden to be removed and replaced.

12 2(J) Implied

13 2(V) Location of spoil storage and period of storage before grading.

14 5(A-G) Grading requirements.

15 2(R,S)

16 5(B) Gently undulating or in accordance with approved plan.

17 5(F) Describe method and amount of cover in mining plan.

18 5(C)

19 2(P) Describe method of removing and preserving of topsoil.

20 5(E) Construct earth dams in final cuts to control toxic water provided dam construction and impoundment is not contrary to state laws.

- 21 5(E) Implied
- 22 2(J) Operator shall submit an estimate of any water to be stored, diverted, or used and any resulting pollutants.
- 23 5(D) Mining and grading shall not affect the drainage or stream flow in a manner that would impair or be detrimental to existing water rights or the availability of water for beneficial use in the state.
- 24 5(E)
- 25 5(C)
- 26 5(B)
- 27 2(S) Implied
- 28 5(G) Implied
- 29 6(B) Revegetation to proceed in manner to achieve intended end use approved in reclamation plan.
- 30 2(R) Includes only a general description in plan.
- 31 2(N) Estimate of acreage to be mined on an annual basis.
- 32 2(F) Two copies of a topographic map of suitable scale. One copy is for the Environmental Improvement Agency.
- 33 2(F) (4) Appropriate contour interval.
- 34 2(F) (3) Including estimated quantity of flows.
- 35 2(F) (3)
- 36 2(F) (2) Existing prior to February 29, 1972.
- 37 2(F) (5) Implied
- 38 2(G) Diagrammatic sketch comparing physiographic features of area prior to mining operations, with a projection of the physiographic features of the affected area after reclamation.
- 39 7(A,B) Two copies of a report to be submitted within 60 days after end of operator's mining year. Map shall accompany the report and shall be at the same scale as map submitted with mining plan or a suitable overlay. Report requires detailed explanation of acreages and status of grading, topsoiling, revegetation and reuse of affected land, analyses of soil to be revegetated, and an appraisal of the success of the revegetation efforts.
- 40 7(B) (3)
- 41 7(B) (1,2) Outlines of the permit and affected areas.
- 42 7(B) (4)

NORTH DAKOTA

A1- North Dakota Century Code, Chapter 38-14, Reclamation of Strip-Mined Lands, Sections 38-14-01 through 38-14-13 (as amended 1975); citations are to individual sections.

- 1 38-14-04(1), (1)(a) Application for a mining permit shall be made on a form furnished by the commission. Included in the application shall be both a limited mining plan (LMP) and an extended mining plan (EMP):

LMP - A detailed statement covering those years of mining included in the permit term.

EMP - A detailed written statement covering not less than ten years immediately succeeding the date of its making or the date of any amendments made thereto. The purpose of the EMP is to inform the commission of conditions existing in the area sufficiently in advance so as to allow the commission to more accurately assess the effects of the proposed operations.

Both the LMP and the EMP shall include a description of the land to be affected during the period for which the plan is written, and shall include a legal description of the land, identity of surface rights and mineral rights owners, source of operator's legal right to mine such lands, hydrologic data, and geologic, topographic, and soils maps, and the report of the results of a very detailed soil survey. In addition, the plans shall include the approximate number of tons of coal to be mined in the plan, the location and composition of the coal to be mined, and any other information as the commission may require.

- 2 38-14-02.1 Detailed soil survey required to accompany LMP. Survey to be made by professional soil classifier.
- 3 38-14-05(8) Operator's reclamation plan covering the land described in the LMP shall designate which parts of the affected land shall be reclaimed for various land use.
- 4 38-14-05(8) The commission's approval or modification of the reclamation plan shall include consideration of the advice and technical assistance of the commission's advisory committee.
- 5 38-14-04(1)(a)(3) Describe location and composition of the coal to be mined from the land described in both the EMP and LMP.
- 6 38-14-05(9) Operator shall revegetate affected land as described in the approved reclamation plan.
- 7 38-14-01 Reclaim lands to encourage productive use.
- 8 38-14-05(1)
- 9 38-14-05(5)
- 10 38-14-05(2) Operator shall, in such a manner as required by the commission, save, segregate, and respread suitable plant growth material up to a maximum of five feet.

- 11 38-14-05(2) If suitable plant growth material up to five feet is not available within the permit area, all suitable plant growth material that is available shall be spread over the regraded area as prescribed by the commission.
 - 12 38-14-05(3)
 - 13 38-14-05(5) Implied
 - 14 38-14-05(1) Implied; by definition of affected area.
 - 15 38-14-05(2,9) Implied; by definition of affected area.
 - 16 238-14-03.1 Must remove all suitable plant growth material and stockpile for future use.
 - 17 38-14-05(8) Operators plan to designate which parts of land to be reclaimed for forest, pasture, crop, horticulture, or other uses.
 - 18 38-14-05(9) As approved in writing by the commission.
 - 19 38-14-05(10) Reclamation to be completed within 3 years after expiration of permit term. If, in the judgement of the commission, the revegetated land fails to support approved perennial plant species or annual crop production at the end of 3 years, the commission shall, at the request of the operator, extend the reclamation period from year to year for a period of 5 years from the termination of the permit term on the land in question.
 - 20 38-14-02(13) Permit term starts on date when permit is granted and ends with the expiration of the next succeeding three years.
 - 21 38-14-05(7) Operator shall submit an annual map to the commission no later than October 25 during each year of the permit term showing location of the pit or pits by section, township, range, and county.
 - 22 38-14-05(7)
- R1- North Dakota Public Service Commission, Rules and Regulations for Reclamation of Surface-Mined Lands, Rules R38-14-03.1 through R38-14-07.1 (October, 1975); citations are to individual rules.
- 1 R38-14-04.4(2) EMP; Geologic data to be submitted as part of the extended mining plan shall include chemical and physical analyses of the overburden for acidity (pH), sodium adsorption ratio, electrical conductivity, and texture (by feel). Samples are to be taken at 5 foot intervals from a minimum density of one drill hole from each section corner or comparable spacing. Only samples taken dry can be used for analysis. Laboratory analyses to be performed by methods outlined in USDA Handbook 60, Diagnosis and Improvement of Saline and Alkali Soils.
 - 2 R38-14-04.11(2) LMP; Geologic data to be submitted as part of the limited mining plan shall include a report relating chemical and physical properties of the overburden to accompanying cross sections. Properties to be reported include acidity (pH), sodium adsorption ratio, electrical conductivity, and texture (by feel). The density of overburden sampling will be determined by the commission in consultation with the operator. At the same discretion of the commission, sampling shall be done from drill holes within the proposed permit area, the highwall face, or a combination of the two.

- 3 R38-14-04.13 Soil survey to consist of a map and report. Report shall contain the results of physical and chemical analyses, the volumes of soil materials and suitable plant growth material in the permit area by ownership and the volume which is considered best for top dressing the area by ownership, and a description and discussion of the properties of the soil material and suitable plant growth material in the permit area.
- 4 R38-14-04.12(5) Describe major vegetative types and their distribution and also show on LMP maps.
- 5 R38-14-04.7 As part of the EMP, the operator must submit results of an archaeological and historical survey conducted in accordance with survey requirements for large areas developed by the N.D. State Historical Society.
- 6 R38-14-04.15 An archaeological and historical survey as part of the LMP, but conducted in accordance with survey requirements for limited areas.
- 7 R38-14-04.12(5) Show present and post-mining land use on LMP maps.
- 8 R38-14-05.6 The landowner's written preference for a land use plan covering his affected land must accompany the operator's reclamation plan.
- 9 R38-14-04.12(6) Pit layout and proposed sequence of mining operator to be shown on area map for LMP.
- 10 R38-14-04.17 The Commission may require cost estimates from the operator for backfilling and shaping, handling suitable plant growth material, and revegetation.
- 11 R38-14-05.5 Any water impoundment built as part of an approved reclamation plan must meet the standards required by the North Dakota State Water Commission.
- 12 R38-14-05.5 Dams must be constructed in accordance with sound engineering practices.
- 13 R38-14-05.4 Runoff water and mine seepage must be treated in accordance with the water quality standards of the State Health Department.
- 14 R38-14-05.5 Implied
- 15 R38-14-04.1, 04.9 EMP; describe land to nearest quarter section. LMP; describe land to the nearest acre.
- 16 R38-14-04.4(1), 04.11(1) Lithologic, gamma ray and density logs required for both the EMP and LMP.
- 17 R38-14-04.3 Because water supplies may be affected several miles beyond the mined area, it is necessary to develop an analysis of the surface and groundwater hydrology and resources of the potentially affected area prior to mining for both the EMP and LMP.

- 18 R38-14-04.3 A minimum of one data point (a piezometer nest) per four square miles shall be used to evaluate the quantity and quality of groundwater resources. Where feasible, water samples shall be collected from each data point for chemical analyses which shall include total dissolved solids, hardness, sodium, iron, bicarbonate, nitrate, sulfate, chloride, acidity (pH), and sodium adsorption ratio.
- 19 R38-14-04.3(3) Water level measurements shall be taken at each data point in order to prepare contour maps of the water table or piezometer surface of the water in each aquifer (including water bearing coal seams) that will be affected by mining. Lithologic and geophysical logs, and piezometer construction details shall also be submitted with the maps.
- 20 R38-14-04.3 Implied
- 21 R38-14-04.16 Eight copies of the reclamation plan and materials required for the limited mining plan (LMP) shall be submitted. Number of copies required for extended mining plan (EMP) is not specified.
- 22 R38-14-04.5 EMP; topographic map at a scale of 1:24,000 (1 inch = 2000 feet) with legible contours. Map, or maps, shall show scale, date, location, company name, legal subdivision boundaries, appropriate legend, boundaries of the plan area and the delineation and proposed mining sequence of its subareas, current land use, and other information as required by the commission.
- 23 R38-14-04.12 LMP; planimetric mine map, with as many separate detail maps as necessary, at a scale of 1:4800 (1 inch = 400 feet). Map, or maps, shall show scale, date, location, company name, legal subdivision boundaries, appropriate legend, delineation of the exact area being considered for permit, present and post-mining land use, major vegetative types and their distribution, pit layout, proposed sequence of mining operations, general post-mining topography and surface drainage, and other information as may be required by the commission.
- 24 R38-14-04.5
- 25 R38-14-04.5(4), 04.12(3)
- 26 R38-14-04.7, 04.15 Implied
- 27 R38-14-04.5(3), 04.12(3)
- 28 R38-14-04.5(4)
- 29 R38-14-04.12(3) Existing and proposed haul roads and mine railways.
- 30 R38-14-04.7(3)
- 31 R38-14-04.6 EMP; soil map shall be at a scale of 1:20,000 (3.168 inches = 1 mile) or 1:15,840 (4 inches = 1 mile) and show the kinds and extent of the soils in the area covered by the EMP. Soil interpretation maps at a scale of 1:24,000 (1 inch = 2000 ft) shall accompany the soil map. These are slope, texture, parent material, inherent productivity, sodium-affected soils, and salt-affected soils.

- 32 R38-14-04.13 LMP; map shall be made by accepted principles and methods at a scale of 1:4800 (1 inch = 400 feet) and shall show the location and the vertical and areal extent of the soil material and suitable plant growth material within the permit area, and the location and the vertical and areal extent of the soil material and suitable plant growth material within the permit area that is considered best for top-dressing the area to be reclaimed.
- 33 R38-14-04.12(4)
- 34 R38-14.04.4 EMP; geologic data shall consist of cross-sections sufficient to depict the major subsurface variations within the mine plan area. The lithology of the overburden must be shown, and gamma ray and density logs included as verification. Horizontal scale shall be 1 inch = 2000 feet and the vertical scale shall be 1 inch = 20 feet.
- 35 R38-14-04.11 LMP; geologic data, lithology, log requirements, and vertical scale shall be the same as required for the EMP except that the horizontal scale shall be 1:4800 (1 inch = 400 feet).
- 36 R38-14-04.3(3) Contour map, or maps, at a scale of 1:24,000 (1 inch = 2000 feet) showing the water table or piezometric surface of the water in each aquifer (including water-bearing coal seams) that will be affected by mining in the potentially affected area.
- 37 R38-14-04.4, 04.11 Implied
- 38 R38-14-04.12(6)
- 39 R38-14-04.12(6) Implied
- 40 R38-14-04.12(8)
- 41 R38-14.04.12
- 42 R38-14-04.12(7) Map showing the general post-mining topography and surface drainage.
- 43 R38-14-04.12(3)
- 44 R38-14-04.11 Semi-annually and on a cumulative basis, the operator shall submit a report on a form prescribed by the commission as to the number of acres which have been stripped of suitable plant growth materials, from under which coal has been removed, which have been regarded, which have been respread with suitable plant growth material, and which have been planted. The report shall be due within the first 25 days of the month following the report period.
- 45 R38-14-05.12 The annual map shall be a planimetric map at a scale of 1:4800 (1 inch = 400 feet) and shall show the acres which have been disturbed, regraded, respread with suitable plant growth material, and planted.
- 46 R38-14-05.11 Implied
- 47 R38-14-05.12

OHIO

Al- Revised Code of Ohio, Chapter 1513, Strip Mining and Reclamation of Mined Land, Sections 1513.01 through 1513.99 (1972); citations are to individual sections.

- 1 1513.07(a) (8) Results of test borings.
- 2 1513.07(A) (8) Thickness of coal seam and crop line of the seam.
- 3 1513.07(A) (8)
- 4 1513.07(A) (8)
- 5 1513.07(A) (8) Implied; all information relating to test borings to be reported.
- 6 1513.07(A) (2) A description of the land upon which the applicant proposes to engage in a strip mining operation and a description of its location so that it may be located and distinguished from other lands.
- 7 1513.07(A) (9)
- 8 1513.07(A) (8) Implied
- 9 1513.07(A) (9) Implied
- 10 1513.07(A) (10)
- 11 1513.16(A) Within 3 months after removal of overburden the operator shall commence backfilling, grading, resoling, and other work, except planting. Such work shall be completed within 12 months after the operation is terminated, completed, or abandoned. Whenever possible, it shall be required to proceed with reclamation while mining progresses. The Chief of Reclamation may extend the time limits for periods of not more than one year at a time.
- 12 1513.16(C) (1) Unless mining and reclaiming approved provides for terracing or for use of the area of land affected for water impoundments, water-oriented real state developments, industrial site, agriculture, etc.
- 13 1513.16(B) (3)
- 14 1513.16(B) (5) Implied
- 15 1513.16(C) (1)
- 16 1513.16(B) (2), (c) (2)
- 17 1513.16(C) (3) Plant and grow vegetative covering as required by approved mining and reclamation plan.
- 18 1513.16(B) (2)
- 19 1513.07(A) (9)
- 20 1513.16(C) (1) Implied
- 21 1513.16(B) (5)
- 22 1513.16(C) (2) Implied
- 23 1513.161 Use of explosives in accordance with Chapter 4157 of the Revised Code and Rules adopted pursuant thereto.

- 24 1513.161 Before an explosive is set off, sufficient warning to allow any person approaching to retreat. All persons in occupied buildings within 700 feet from the prescribed maximum distance shall be notified within 24 hours prior to the blast.
- 25 1513.161 Chief of Reclamation to establish minimum distances for setting off explosives in the vicinity of occupied or useable structures and public roads.
- 26 1513.16(B)(4) Including fire lanes.
- 27 1513.07(A)(9) Plan shall provide for the immediate establishment of vegetative cover.
- 28 1513.07(A)(3) Estimated acreage to be affected during the permit year.
- 29 1513.07(9) Present time schedule for completion of mining, backfilling, grading, resoiling, planting, other reclamation to be done, and include distances at which reclamation will follow mining.
- 30 1513.07(A)(11), (11)(d,f,i,j) Three copies of enlarged U.S.G.S. topographical map, a scale of not less than 1 inch equals 400 feet. Show the boundaries, names of surface and mineral owners of the affected area, and section, township, range, counties and municipal corporations. Show the date of which the map was prepared, north point and the quadrangle sketch, and the exact location of the operation, and references to all existing boundary and survey monuments within 500 feet of the area.
- 31 1513.07(A)(11)
- 32 1513.07(A)(11)(d,e) Within 500 feet of the affected area, including the names of surface owners within 500 feet.
- 33 1513.07(A)(11)(e)
- 34 1513.07(A)(11)(g) Drainage plan on, above, below and away from the area.
- 35 1513.07(A)(11)(g) Indicating directional flow and stream or tributaries receiving the discharge.
- 36 1513.07(A)(11)(h) Location of test borings that have been drilled.
- 37 1513.07(A)(8) Presented in test boring report.
- 38 1513.07(A)(11)(c) Whether active, inactive or mined out.
- 39 1513.07(A)(11)(g)
- 40 1513.07(A)(11)(a,j) Map shall be prepared by registered professional engineer or registered surveyor, and shall be signed and attested before a notary public.

- 41 1513.09 Quaterly reports: Within 30 days after the first 3 months of the license year and within 30 days after each three month period, the operator shall file with the chief a quaterly report. The chief may require progress maps from the operator upon 30 days's notice to the operator. A progress map shall contain information specified by the chief. Within 30 days after the expiration of a license or if the operation has been abandoned or completed, the operator shall submit a final report containing all information covered in quaterly report but covering the entire preceeding license year and a final map containing all information required in Section 1513.07(A)(11) describing the exact area of land affected by the strip mining operation.
 - 42 1513.09(A,B) State the amount of coal produced, number of acres and the area of land affected and reclaimed (within in the period).
- II- Ohio Department of Natural Resources, Division of Reclamation, Application for Strip Mining License, Form SM-1 and Attachments (undated).
- 1 SM-1 One copy of a report on thest boring information is to be submitted with the application for a strip mining license.
 - 2 SM-1 Report shall include a map prepared in accordance with Section 1513.07 of the Revised Code of Ohio.
 - 3 SM-1 Thickness of each strata above the coal seam and to a depth of 5 to 10 feet below the coal must be described, and the pH of each strata reported.
 - 4 SM-1 Describe the land use prior to the contemplation of mining.
 - 5 SM-1 Where mining will begin and in what direction it will proceed.
 - 6 SM-1 Types, capacity, use of each.
 - 7 SM-1 Describe methods and practices to be followed for backfilling and grading.
 - 8 SM-1 Describe method of placement of spoils (mixing, layering, burying toxics).
 - 9 SM-1 Cross-sections and drainage plans are required if life of the haul road is to exceed the termination date of the license.
 - 10 SM-1 Plant permanent cover.
 - 11 SM-1 Describe application rates and spacing of proposed species.
 - 12 SM-1 And proposed haul roads.
 - 13 SM-2
 - 14 SM-2 Indicate location and size.

OKLAHOMA

A1- Oklahoma Statutes, Title 45, Chapter 8-A, Sections 721 through 738 (as ammended 1972), known and cited as "The Mining Lands Reclamation Act"; citations are to individual sections.

- 1 724(b) Application form furnished by the Departmtne shall contain a description of the land to be affected including the section, township, range, and county.
- 2 724(d) Reclamation plan accompanying permit application shall set forth the proposed use to be made of the affected land.
- 3 724(d) Methods of achieving post-mining land use to be indicated on reclamation plan form.
- 4 725(g) Operator shall plant vegetation appropriate to the proposed land use as designated by the operator.
- 5 725(c) All ridges and peaks of overburden shall be graded to a rolling topography traversable by machines or equipment customarily used in connection with use to be made of land after reclamation. Such slopes need not be reduced to less than the original grade. The slope of the ridge of overburden resulting from a box cut need not be reduced to less than 25 degrees from horizontal.
- 6 725(e) Shall cover exposed face of mineral seam, where significant concentrations of acid-forming materials are present to a depth of not less than 3 feet with earth that will support vegetation or with a permanent water impoundment.
- 7 726 Implied
- 8 725(d) Earth dams may be constructed to form lakes in pits resulting from surface mining operations, provided that the formation of lakes shall not interfere with other mining operations or damage property of others.
- 9 725(c) Implied
- 10 725(c)
- 11 725(g) All affected land except that which is to be covered with water or used for homesites or industrial purposes shall be revegetated.
- 12 726 All refuse disposal areas shall be reclaimed or treated or the refuse be contained by the operator to avoid adverse environmental effects.
- 13 725(g) Revegetation to be compatable with planned land use as determined by operator. The Department may prescribe by rules and regulations the required density of such planting, and may make replanting requirements.
- 14 725(g) No planting of any kind shall be required on any affected land so long as the chemical and physical characteristics of the soil of such affected land are toxic, deficient in plant nutrients or composed of sand, gravel, shale, or stone to such an extent as to seriously inhibit plant growth.

- 15 731 Whenever an operator shall have completed all requirements under the provisions of this act, he shall notify the Department. If the Department determines that the operator has completed reclamation requirements and achieved results appropriate to the use for which the area was reclaimed, the Department shall release the operator from further obligations.
 - 16 731 Operator shall submit to Department, no later than September 1 following the end of each permit year, a map in a form approved by the Department showing location of pit or pits by section, township, range, and county, identification of land affected during the permit year showing the number of acres, and any deviation from the plan of reclamation.
 - 17 731 Identify and show the number of acres the operator has completed mining operations thereon during the permit year.
 - 18 731 Show in acres the extent of reclamation accomplished, including grading and revegetation efforts.
- I1- Oklahoma Department of Mines, Application for Permit to Engage in Mining in the State of Oklahoma, MLR Form 1 (rev. 1975); hereinafter cited as MLR-1.
- 1 MLR-1 Indicate method (type) of surface mining on application form.
Note: Instructions from chief mine inspector state that a "plan of mining" shall accompany application for a new coal mining permit.
 - 2 MLR-1 Instructions from chief mining inspector state that a "plan for using topsoil" is required with the application for a new coal mining permit.
 - 3 MLR-1 Indicate permit year and total estimated acreage to be affected on permit application.
 - 4 MLR-1 Instructions from the chief mine inspector state that an application for a new coal mining permit requires a water permit.
 - 5 Note: Three copies of a location map form are supplied by the Department and are to be submitted with the application. Locate the operation as accurately as possible on the map, and indicate the county, section, range, township, and acreage to be covered by permit in spaces provided on the form.
- I2- Oklahoma Department of Mines, Operator's Reclamation Plan, MLR Form 3 (Rev. 1972); hereinafter cited as MLR-3.
- 1 MLR-3 Applicant shall indicate on plan form acreages designated for various land use reclamation categories.
 - 2 MLR-3 Indicate type(s) of proposed vegetation on reclamation plan form.

OREGON

A1- Oregon Revised Statutes, Sections 517.750 through 517.990 (1972), known as the Oregon Mined Land Reclamation Act; citations are to individual ORS sections.

- 1 ORS 517.750(11) Mining and reclamation plans required as for strip mining operations if prospecting and exploration activities remove more than 10,000 cubic yards of minerals or by which at least two acres of land are affected within a period of 12 consecutive calendar months, or when such activities affect more than one acre of land for each eight acres of land prospected or explored.
- 2 ORS 517.750(9)(b) Proposed measures for the rehabilitation of the surface-mined lands and the procedures to be applied.
- 3 ORS 517.750(9)(a) Proposed measures to be taken to protect the natural resources of the adjacent lands.
- 4 ORS 517.750(9)(c) Procedures to be applied to control the discharge of contaminants.
- 5 ORS 517.750(9)(c) Describe procedures for the disposal of surface mining refuse.
- 6 ORS 517.750(1)(f) If economically practicable, a plan for visual screening by vegetation or otherwise that will be established and maintained for the purpose of screening such operation from the view of persons using adjacent public highways, public parks and residential areas.
- 7 ORS 517.750(9)(f) A proposed time schedule for the completion of reclamation operations.

R1- Oregon Administrative Rules Compilation, Sections 30-005 through 30-060 (as amended 1974), Rules and Regulations Pursuant to the Oregon Mined Land Reclamation Act; citations are to individual OAR sections.

- 1 OAR 30-025(1)(q) Evidence, in written form, stating that all owners of a legal, equitable, fiduciary, or possessory interest in the land concur with the proposed subsequent use for any mining operation commencing subsequent to July 1, 1972.
- 2 OAR 30-025(1)(m) Provision for preparing the permit area in the best practical manner for planned subsequent beneficial use.
- 3 OAR 30-025(1)(b) A list of known materials for which the surface excavation operation is to be conducted.
- 4 OAR 30-025(1)(c) A general description of the excavation methods.
- 5 OAR 30-025(1)(c) General description of the type of equipment to be used.
- 6 OAR 30-020(1)(g) Department will determine the per acre bond rate.
- 7 OAR 30-025(1)(g)
- 8 OAR 30-025(1)(g,h) Implied

- 9 OAR 30-025(1)(m) Water reservoir or recreation lake.
 - 10 OAR 30-025(1)(i) Provision for prevention of water stagnation.
 - 11 OAR 30-025(1)(j) Provisions for subsurface benches.
 - 12 OAR 30-025(1)(d)(C) Protection of public generally from steep banks, deep holes, and other hazards peculiar to operations of this type.
 - 13 OAR 30-025(1)(o)
 - 14 OAR 30-025(1)(p) Provisions for rehabilitating stream channels and banks which will minimize erosion, scour and siltation.
 - 15 OAR 30-025(1)(l) Implied; describe provisions for removal of structures, equipment, and refuse in accordance with the reclamation plan.
 - 16 OAR 30-025(1)(g) Stabilization of all final slopes.
 - 17 OAR 30-025(1)(g) Stabilize by sloping or other ground control methods.
 - 18 OAR 30-025(1)(h) Revegetate all disturbed areas.
 - 19 OAR 30-025(1)(h) Implied
 - 20 OAR 30-025(1)(h) Native or suitable to the area.
 - 21 OAR 30-025(1)(h) Vegetation survival of 75 percent, uniformly distributed, for one growing season will normally be considered acceptable.
 - 22 OAR 30-025(1)(c) Proposed date for starting the operation.
 - 23 OAR 30-025(1)(d)(E) Time schedule for initiation and projected completion of surface mining.
 - 24 OAR 30-025(1)(d)(A) Describe method for disposition of overburden.
 - 25 OAR 30-025(1)(n) Topographic maps of permit area are to be submitted at a scale no smaller than 1 inch equals 500 feet. Number of copies not specified. If aerial photographs are to be used as a base, the altitude and focal length of the camera lens must be provided.
 - 26 OAR 30-025(1)(n) Specify contour interval.
 - 27 OAR 30-025(1)(n)
 - 28 OAR 30-025(1)(n) Including proposed access roads.
- G1- Oregon Department of Geology and Mineral Industries, Mined Land Reclamation Division, Reclamation Plan Guideline (undated), citations are to individual guidelines.
- 1 Guidelines G(2)(e,g) Applicant to list types and amounts of grass seed, seedlings and shrubs.
 - 2 Guideline G(1) Describe what will be done to insure ground stability.

- 3 Guideline G(2)(a) Explain how topsoil will be saved and stored.
 - 4 Guideline G(2)(c) Explain measures to be taken to prevent wind and water erosion of topsoil during storage.
 - 5 Guideline Water Impoundments. State provides cross-section for two water impoundments. Information to be provided:
 - 1) How large will surface area be, in acres.
 - 2) Provisions for public safety.
 - 3) Provisions to prevent water stagnation.
 - 4) What is water source for impoundment.
 - 5) Will there be public access for fishing.
 - 6 Guideline H(b) Describe provisions taken for silt control.
 - 7 Guidelines K(b)(2,3,4,6,7,10,12,14) Map should also show, but is not limited to, north arrow, boundaries of permit area, quarter section, section, township and range, distance and direction to nearest municipality, location and names of adjacent landowners, all occupied houses within 500 feet, date of map preparation, and name of person preparing map. A separate map showing general location of the operating area (not larger than 8-1/2" x 11").
 - 8 Guideline K(b)(13) Implied; area for waste disposal.
 - 9 Guideline K(b)(13) Area for topsoil storage.
 - 10 Guideline K(b)(5)
 - 11 Guideline K(b)(11) Typical cross-section of present ground line and projected ground line after reclamation.
 - 12 Guideline K(b)(9) Location of plant, office of maintenance facilities.
 - 13 Guideline K(c) A revised map may be required annually. (It is presumed that revised map would show same information required for mining plan maps and would include mining and reclamation progress to date of revised map).
- II- Oregon Dept. of Geology and Mineral Industries, Surface Mining Data to Accompany Application for Operation Permit, Form SMLR-1.
- 1 SMLR-1 . Reclamation plan must be reviewed by country or municipality in which the operation is located before approval by department.
 - 2 SMLR-1 A permit from the Division of State Lands is required if more than 50 cubic yards of material are to be removed or placed in fill within the bed or banks of a natural waterway.
 - 3 SMLR-1 Indicate acreages affected by mining, stockpiles, refuse disposal, prospecting and exploration, including volumes excavated, and total acreage affected.

PENNSYLVANIA

- Al- Pennsylvania Surface Mining Conservation and Reclamation Act, Act of May 31, 1945, P.L. 1198, Act No. 418 and Amendments including Laws of 1971 (52 Penn.Stat. 1396.1 et seq.); hereinafter cited as 418.
- 1 418(4)(a)(1) Two copies of an accurately surveyed map on plan or a scale of not less than 1 inch equals 200 feet. Aerial photographs may also be required.
 - 2 418(4)(a)(1)
 - 3 418(4)(a)(1) Cross-sections at intervals of not more than one hundred feet.
 - 4 418(4)(a)(1) Results of test-borings completed, if any.
 - 5 418(4)(a)(1) A complete analysis of any coal.
 - 6 418(4)(a)(1) And all buildings within 1000 feet of the outer perimeter of the affected land and name of adjacent land owners.
 - 7 418(4)(a)(2)(A) A statement of the highest and best use to which the land was put prior to the commencement of surface mining.
 - 8 418(4)(a)(2)(B)
 - 9 418(4)(a)(2)(G)
 - 10 418(4)(a)(2) A complete and detailed reclamation plan for the land affected.
 - 11 418(4)(a)(1) Description of nature and extent of coal and overburden including analysis.
 - 12 418(4)(a)(2)(K) To divert water from draining into the pit and preventing water from accumulating in the pit.
 - 13 418(4)(a)(2)(D) Where the proposed land use so requires.
 - 14 418(4)(a)(2)(E) Complete planting program.
 - 15 418(4)(a)(2)(F)
 - 16 418(4)(a)(2) A complete and detailed plan for the reclamation of land affected in accordance with Pennsylvania Surface Mining Conservation and Reclamation Act, the Clean Streams Law (June 1937), and other state and federal regulations.
 - 17 418(4)(2)(G) If the reclamation plan does not provide for contouring, explain conditions which do not permit contouring; plan shall then provide for terracing.
 - 18 418(4.2)(a) Implied
 - 19 418(4)(a)(2)(E)
 - 20 418(4)(a)(2)(C) Topsoil and subsoil will be conserved where conditions permit.
 - 21 418(4)(a)(2)(C) If conditions do not permit the conservation of all or part of the topsoil and subsoil, explanation of the said conditions shall be given and alternative procedures proposed.
 - 22 418(4)(a)(2)(G)

- 23 418(4)(a)(2)(K)
 - 24 418(4.2)(d) Implied
 - 25 418(4.2)(b) Blasting in connection with the surface mining shall be done in accordance with regulations promulgated by and under the supervision of the Secretary of Environmental Resources.
 - 26 418(4)(a)(2)(K)(c) Operator shall faithfully perform all requirements of the "Clean Streams Law".
 - 27 418(4)(a)(1) Requires analysis of overburden and a complete analysis of the coal seam.
 - 28 418(4)(a)(2)(K)(f) Three copies of an operations and progress report shall be submitted within 90 days after beginning mining operations and each 90 days thereafter. A new map shall be submitted annually, showing the status of the operation at the conclusion of each year of operation indicating the area affected and restored during the preceding year in relation to property line and boundaries shown upon the map.
 - 29 418(4)(a)(2)(K)(f)
- R1- Pennsylvania Administrative Rules, Sections 77.91 and 77.92, Requirements Accompanying Permits Authorizing the Operation of Surface Coal-Mines (1972); citations are to individual sections.
- 1 77.92(d)(1)
 - 2 77.92(f)(1)
 - 3 77.92(f)(3) Clean fill to three feet min. above coal seam followed by alternate layers of refuse (30 inches maximum) and clean fill (24 inches minimum) and topped out with minimum of 10 feet of clean fill.
 - 4 77.92(f)(5)
 - 5 77.92(h)(2) Plugged to a minimum depth of six feet with impervious materials.
 - 6 77.92(d)(6)
 - 7 77.92(d)(4)
 - 8 77.92(c)(1)
 - 9 77.92(f)(3)
 - 10 77.92(e)(1) Drainage permit required for discharge of any mine waters. Discharges regulated by Section 315, "Clean Streams Law".
 - 11 77.92(c)(2) Water Quality Criteria
- I1- Pennsylvania Department of Environmental Resources, Application for Permit, Form ER-MR-72 (Rev. 1974); hereinafter cited as ER-MR-72.
- 1 ER-MR-72 Estimated acreage.
- I2- Pennsylvania Department of Environmental Resources, Application for Permit Approving Discharge of Industrial Wastes and Mine Drainage Pursuant to the "Clean Streams Law", Form ER-MR-25 with Supplementals A through G (undated); hereinafter cited as ER-MR-25, Supp. A-G.

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- 1 ER-MR-25 Supp. E Any recoverable plastic clay in the strata overlying the coal or immediately below.
- 2 ER-MR-25 Design of settling basins prescribed by Mine Drainage Control Division, Dept. of Mines and Mineral Industries.
- 3 ER-MR-25 Supp. A Logs are required; analyses of coal refuse may be required.

TENNESSEE

- A1- House Bill Number 1519, Sections 1 through 27 (Tennessee Public Acts, 1972, Chapter 547), known as "The Tennessee Surface Mining Law"; hereinafter cited as HB 1519.
- 1 HB 1519(8)(a)(A)(12)
 - 2 HB 1519(8)(a)(A)(10) Implied
 - 3 HB 1519(8) Each operator shall prepare and carry out a mining and reclamation plan; plan to include descriptions and methods of mining, grading and revegetation.
 - 4 HB 1519(8)(c) Thickness and quality of the mineral being mined.
 - 5 HB 1519(8)(c)
 - 6 HB 1519(8)(a)(A)(3)
 - 7 HB 1519(8)(a)(A)(6-8)
 - 8 HB 1519(9)(a) Revegetation scheme to be included in reclamation plan. Approved species and mixture are listed in Regulations 11.90 through 11.93.
 - 9 HB 1519(5) Operator shall be granted permit only if requirements and criteria set forth in subsections 5(c) through 5(i) and rules and regulations promulgated thereto, are satisfied; and only upon submission and approval of a mining and reclamation plan as provided in Section 8.
 - 10 HB 1519(2)(o) Restore the affected area to a condition whereby it can serve some purpose, at least as useful as that in existence before any mining.
 - 11 HB 1519(8)(a)(A)(6) On other than steep slopes, regrading the area to approximately the original contour or rolling topography, and elimination of all highwalls, spoil piles and water collecting depressions.
 - 12 HB 1519(9)(a) Describe manner in which topsoil shall be conserved.
 - 13 HB 1519(9)(a)
 - 14 HB 1519(8)(a)(A)(2) Implied
 - 15 HB 1519(8)(a)(A)(1)
 - 16 HB 1519(9) All affected areas to be topsoiled and revegetated.
 - 17 HB 1519(10) If the annual report is approved by the Commissioner, and Commissioner's inspection of the affected area shows that the operator has complied fully with the provisions of this Act, the Commissioner shall release the bond, or portion thereof, covering the reclaimed area covered by the annual report and inspection.
 - 18 HB 1519(8)(c) Manner, timing and distance for backfilling and grading.
 - 19 HB 1519(8)(a)(A)(8) Describe method of placement and grading of spoil banks.

- 20 HB 1519(8)(c) Mining plan showing depth and character of the overburden.
 - 21 HB 1519(8)(b)(3) Show estimated location and height.
 - 22 HB 1519(8)(b)(3)
- R1- Tennessee Department of Conservation, Division of Surface Mining, Regulations Pertaining to Surface Mining, Regulations 1.01 through 11.94 (1974); citations are to individual regulations.
- 1 4.01-.03 Prospecting permit is required when an operator proposes to remove overburden from an area not covered by a mining permit. After receipt of the application, a representative of the Division will make a surface inspection. The operator will sign an agreement to regrade and revegetate the disturbed area and post a \$500.00 surety bond prior to the initiation of any disturbance. If a mining permit is approved within six months from the date of the prospecting permit, reclamation of the explored area will not be required prior to mining.
 - 2 4.01 Three copies of a topographic map or aerial photographs showing the area to be disturbed and the tract boundaries.
 - 3 4.01
 - 4 4.01 The contour on which prospecting activities will take place and the intervals at which there will be surface disturbance.
 - 5 11.11 Cover with spoil to a depth of at least four feet or cover with a water impoundment.
 - 6 11.21 Mining operations to be conducted to minimize erosion and prevent all landslides.
 - 7 5.01 Implied
 - 8 11.41
 - 9 11.45 Water impoundments, as an alternative to backfilling the final pit, are encouraged.
 - 10 11.45(a) Water is available to maintain the water level of at least 4 feet above the top of the coal seam at all times.
 - 11 11.45 All impoundments must be designed in conformance with criteria included in the "Drainage Handbook for Surface Mining" published by the Department of Conservation.
 - 12 11.45(d,e) Adequate access must be provided, and the high-wall or low wall must be reduced to a slope of 15 degrees or less and sloped to the water's edge.
 - 13 11.45(b)
 - 14 11.28(b)
 - 15 11.14 Discharge permits required from Division of Water Quality Control.
 - 16 11.14
 - 17 11.42

- 18 11.28(e) A 25-foot barrier is required between underground mine and surface auger hole.
- 19 11.11
- 20 6.01 According to published state regulations.
- 21 11.03(a) No sustained grade shall exceed 10 percent. The maximum grade shall not exceed 15 percent for 300 feet. Other design criteria are listed in this section.
- 22 11.02(b)
- 23 11.52 The objective of revegetation is to provide a quick, permanent, protective, self-regenerating cover on the disturbed area as soon as possible to minimize erosion.
- 24 11.52 Select plants after evaluating both their potential for stabilization and their use in terms of forest products, wildlife habitat, and agricultural benefits.
- 25 2.04(a)(5) Acreage affected shown in map title block.
- 26 2.07 Water quality controlled by Tennessee Water Quality Control Act of 1971; permits for discharge from Div. of Water Quality Control, Tenn. Dept. Public Health to be obtained before applying for surface mining permit.
- 27 2.04 Three copies of general location map (U.S.G.S. 7-1/2 minute quadrangle sheet) and three copies of an enlarged topographic map (scale 1 inch equal 500 feet). A color code legend is designated in Section 204(b). Enlarged map shall also show names of landowners within 500 feet of permitted area, slope measurements every 500 feet as calculated from the topo map if slope is more than 15 degrees, approximate location of the cuts or excavation to be made, and location of areas designated where not mining can take place, ie., areas too steep, too close to a stream, or as a hazard or protected areas.
- 28 2.04(a) Title block of both maps shall show the name of the operator, owners of the surface and mineral rights, county, total number of acres to be disturbed, date of map preparation and the certification as to the maps accuracy by the person responsible for its preparation.
- 29 2.04
- 30 2.04(b)(4) Including gas and oil wells, officially designated scenic areas, pipelines, etc., within 500 feet of the affected area.
- 31 2.04(b)(2)
- 32 2.04(b)(3,4) Including all proposed roads.
- 33 2.04(b)(4) Within 500 feet of the affected area.
- 34 2.04(b)(5) Implied
- 35 2.04 Prepared by a qualified professional engineer, geologist, surveyor, or other person approved by the Commissioner.

- 36 3.02 Annual report to be filed, not later than 60 days
after the anniversary date of each permit. Report shall
include three maps at a scale of 1 inch equals 500 feet show-
ing progress of the reclamation work accomplished as of the
anniversary date.
- 37 3.02 Permit number.
- 38 3.02 Color code designated for various stages of recla-
mation.
- 39 3.02 Other information as the Commissioner may reasonably
require.
- 40 3.02 And number of acres affected.
- 41 3.02 Planted areas should be shown in green, areas only
regraded shall be shown in brown, and areas with no recla-
mation work shall be shown in red.
- 42 2.04 Implied; certification required for each ammendment
map.

TEXAS

- A1- Senate Bill No. 55, Sections 1 through 28 (Regular Session 1975), known and cited as the "Texas Surface Mining and Reclamation Act"; hereinafter cited as SB 55.
- 1 SB 55(8)(e)(5) A description of the affected land and permit area.
 - 2 SB 55(10)(a)(20)
 - 3 SB 55(10)(a)(2)(A) Land uses existing at time of application and if the land has a history of previous mining, the uses, if reasonably ascertainable, which immediately preceded any mining.
 - 4 SB 55(10)(a)(2)(B)
 - 5 SB 55(10)(a)(2)(B) Soil and foundation characteristics.
 - 6 SB 55(10)(a)(4) Implied
 - 7 SB 55(8)(j)
 - 8 SB 55(10)(a)(4)
 - 9 SB 55(8)(e)(5) Type and method of surface mining operation, including mining schedules.
 - 10 SB 55(8)(e)(5)
 - 11 SB 55(11)(b)(3)
 - 12 SB 55(11)(b)(17) Implied
 - 13 SB 55(11)(a)
 - 14 SB 55(11)(b)(1)
 - 15 SB 55(11)(b)(2)
 - 16 SB 55(11)(b)(3) Implied
 - 17 SB 55(11)(b)(4)
 - 18 SB 55(11)(b)(5)
 - 19 SB 55(11)(b)(11) At a minimum, shall be compatible with requirements of Sec. 6.0731, Water Code, and applicable federal laws.
 - 20 SB 55(11)(b)(19)(A)
 - 21 SB 55(11)(b)(19)(B) Implied
 - 22 SB 55(11)(b)(19)(C)
 - 23 SB 55(11)(b)(19)(D)
 - 24 SB 55(11)(b)(19)(E)
 - 25 SB 55(11)(b)(7) Fill any auger hole with impervious material.
 - 26 SB 55(11)(b)(8)

- 27 SB 55(11)(b)(8)(A)(i,ii)
 - 28 SB 55(11)(b)(8)(A)(iii)
 - 29 SB 55(11)(b)(8)(B)
 - 30 SB 55(11)(b)(8)(C)
 - 31 SB 55(11)(b)(9)
 - 32 SB 55(11)(b)(6) Implied
 - 33 SB 55(11)(b)(10) Distance not specified.
 - 34 SB 55(11)(b)(12)
 - 35 SB 55(11)(b)(13) Explosives to be used only in accordance with existing state and federal laws and regulations promulgated by the commission.
 - 36 SB 55(11)(b)(15)
 - 37 SB 55(11)(b)(16)
 - 38 SB 55(11)(b)(17)
 - 39 SB 55(11)(b)(18) Assume responsibility for successful revegetation for a period of four years beyond the first year provided that the four-year period begins no later than two complete growing seasons after vegetation has been successfully established.
 - 40 SB 55(10)(a)(5) Including copies of any pertinent permit applications.
 - 41 SB 55(11)(b)(1) Implied
 - 42 SB 55(10)(a)(6) General timetable which will be necessary for accomplishing the major events contained in the reclamation plan.
 - 43 SB 55(8)(e)(5) Implied
 - 44 SB 55(8)(e)(5) Anticipated hydrological consequences of the mining operation.
 - 45 SB 55(8)(3) Three copies of a permit application shall be submitted.
 - 46 SB 55(8)(3)(5) Describe nature and expected amount of overburden to be removed, and depth of excavations.
- RI- Proposed Rules and Regulations of the Surface Mining and Reclamation Division of the Railroad Commission of Texas (as amended 1975), Rules 100.1 through 1300.2; citations are to individual rules.
- 1 500.1 Any person planning to undertake exploration activities which would involve the removal of "substantial" quantities of overburden with explosives or earth moving equipment to evaluate the feasibility of removing coal by surface mining methods, shall provide written notice to the Commission prior to exploration activities.

- 2 500.2 Three copies of exploration notice shall be submitted to the Commission, and shall: (a) indicate the general geographic area in which the exploration activities are to be carried out, (b) describe the methods of exploration, (c) estimate the amount of acreage to be disturbed, (d) provide a reclamation plan on a form to be promulgated by the Commission, and, (e) estimate the time period for exploration.
- 3 500.2(b)
- 4 500.2(d) Describe on form to be provided by the Commission.
- 5 500.2(e) An estimate of the period of time during which exploration activities shall be carried out.
- 6 Note: Railroad Commission of Texas has authority to carry out provisions of "Texas Surface Mining and Reclamation Act". The Commission will promulgate rules and regulations for the conduct of exploration activities.
- 7 300.3(e)(4) Description of depth below ground surface, thickness, and estimated area of the coal to be mined.
- 8 600.3(b)
- 9 300.3(e)(7,8) Engineering estimates of capacities of catch basins or holding ponds required to contain or control the maximum 5-inch/24-hour rainfall in the area as recorded by the nearest U.S. Weather Bureau Station, and waters pumped from the mine floor.
- 10 300.3(b) If applicant wishes, he may submit an estimate prepared by a qualified registered professional engineer.
- 11 600.3(c) Cover with a minimum of two feet of water or other non-toxic materials.
- 12 600.3(b)(3)
- 13 300.3(e)(1) Each application shall contain a U.S.G.S. topographic map at a scale of 1:24000 where available, showing location and size of the mining operations and the location of all other mines in the permit area.
- 14 300.3(e)(2) Application shall also include a plan view of the mining operations, detailing and dimensioning each existing or proposed major feature of the mine, including overburden, diversion dikes or ditches, holding ponds, and contours on twenty-foot intervals.
- 15 300.3(e)(1,2)
- 16 300.3(e)(1) Implied
- 17 300.3(e)(2)
- 18 300.3(e)(1)
- 19 300.3(e)(2) Implied
- 20 300.3(e)(3) At such intervals to accurately and completely describe the land profile prior to mining and after reclamation.
- 21 900.1 An annual operations and progress report is to be submitted within 90 days after the end of the calendar year.

- 22 900.2(e) Report shall include a U.S.G.S. topographical map at a scale of 1:24000 where available, showing the location of acreage disturbed by mining during year, the location of reclamation during year, and the location of acreage to be affected during ensuing year.
- 23 900.2(e)

UTAH

A1- House Bill Number 323, Sections 1 through 27 (Session Law 1975), known and cited as the "Utah Mined Land Reclamation Act"; hereinafter cited as HB 323.

- 1 HB 323(15)(1)(a) Return land to stable ecological condition comparable with past, present, and probable future local land use.
- 2 HB 323(1)(c)
- 3 HB 323(24)(4) Full release of surety bond will be prima facie evidence that the operator has fully complied with the provisions of the act.
- 4 HB 323(20)(1), (15)(1)(b) Operator shall comply with all statutes, rules, regulations, and ordinances applying to air and water pollution, and meet state and federal regulations regarding air and water quality standards and health and safety standards.

R1- Utah Department of Natural Resources, Division of Oil, Gas and Mining, Proposed Rules Pursuant to the Mined Land Reclamation Act, Rules M-1 through M-8 (7-1-75).

- 1 M-3(2)(a) Prior and current use; include estimates of current surface values.
- 2 M-3(2)(a)
- 3 M-3(2)(b)
- 4 M-3(2)(a) Capabilities to support a variety of uses or proposed uses.
- 5 M-3(3)
- 6 M-3(2)(d) Explain manner and extent of how it will be accomplished.
- 7 M-3(2)(c)(2) Explanation of how materials will be segregated and disposed of.
- 8 M-3(2)(e) Implied
- 9 M-3(2)(c)(1)
- 10 M-3(2)(c)(1) Implied
- 11 M-3(2)(e)
- 12 M-3(2)(e) Non-noxious native plants.
- 13 M-3(2)(f)
- 14 M-3(2)(c) Describe the manner in which the overburden, waste, and rejected materials will be deposited.
- 15 M-3(1), M-6 All maps and plans submitted shall be accurate and of adequate scale to show the details of the operations. A color code or other approved legend is required to indicate surface features of the land affected.
- 16 M-6

- 17 M-3(1)(d) On the land to be affected and within 500 feet of the exterior limits of the land to be affected.
 - 18 M-3(1)(e) Drainage plan on and away from the land to be affected, showing the direction of flow, constructed drainways, natural waterways, and streams or tributaries receiving the drainage.
 - 19 M-3(1)(a) Location of land affected and the total number of surface acres involved.
 - 20 M-3(1)(f)
 - 21 M-3(1)(f) Also thickness and depth of toxic materials and plant support material.
 - 22 M-3(1)(b) Include names of surface and mineral owners within 500 feet of exterior limits of land affected.
 - 23 M-3(1)(b)
 - 24 M-3(1)(g)
 - 25 M-3(1)(d)
 - 26 M-3(1)(e)
 - 27 M-3(1)(d) Abandoned or producing surface facilities.
 - 28 M-8(b) At end of each calendar year, operator shall file an operations and progress report on a form prescribed and furnished by the Division. Report shall include updated map and plan.
 - 29 M-8(b)(2) Report shall include gross amount of materials moved during each month of the year, and the disposition of such material.
 - 30 M-8(b)(1) Location of the operation.
 - 31 M-8(b)(1) Mining application number and date.
 - 32 M-3(1)(a)
 - 33 M-6 Color code, or other approved legend, required.
 - 34 M-8(b)(3) Include the current status of the reclamation work performed.
- I1- Utah Dept. of Nat. Res., Div. of Oil, Gas and Mining, Notice of Intention to Commence Mining Operations, MRA Form 1 (undated); hereinafter cited as MRA-1.
- 1 MRA-1
 - 2 MRA-1 Approximate acreage to be disturbed.
- I2- Utah Dept. of Nat. Res., Div. of Oil, Gas and Mining, Mining and Reclamation Plan, MRA Form 2 (undated); hereinafter cited as MRA-2.
- 1 MRA-2 Average pH of soil, and name of person or agency and method of determination.

- 2 MRA-2 Vegetation types and percent cover.
- 3 MRA-2
- 4 MRA-2 Implied
- 5 MRA-2 Including rate per acre, location and schedule.
- 6 MRA-2 Describe detailed procedure for method of placement or containment of all disturbed materials.
- 7 MRA-2 Describe procedure for final stabilization of all disturbed materials.
- 8 MRA-2 Describe method for handling of all acid or alkali-producing and toxic material.
- 9 MRA-2 Describe procedure for construction and maintenance, including a typical cross section and profile.
- 10 MRA-2 Estimated duration of mining activities.
- 11 MRA-2 Typical cross-section of regrading.

VIRGINIA

- Al- Code of Virginia, Title 45.1, Chapter 17, Surface Mining of Coal, Sections 45.1-198 through 45.1-225 (as amended 1974); citations are to individual sections.
- 1 45.1-203(a) A description of the proposed method of operation and a statement of the nature and extent of anticipated adverse disruptions and injurious effects, reasonably foreseeable as a result of the proposed operation, upon the land and surrounding land, both during and after the completion of mining operation and the proposed control techniques to minimize or prevent such effects.
 - 2 45.1-204(1)
 - 3 45.1-205(b) In reviewing the operation and reclamation plans, the Director shall have such advice and assistance of the local soil and water conservation districts, consulting agencies and any agency of the state as he may request.
 - 4 45.1-204(2)
 - 5 45.1-202(c) Application shall describe the coal to be extracted.
 - 6 45.1-203(a) Mining method including time and manner of operation.
 - 7 45.1-203(b) Drainage plan to be submitted with operations plan which shall provide for the proposed scheme of drainage control.
 - 8 45.1-203(a) Describe proposed method of backfilling.
 - 9 45.1-204 Adoption of more productive land use is encouraged.
 - 10 45.1-222(a) New water or silt retaining dams, or modifications to existing dams, shall be designed and constructed under the direction of a qualified engineer; plans, specifications and other related data shall require approval of Chief Mine Inspector, Division of Mines and Quarries.
 - 11 45.1-203(3)
 - 12 45.1-204(3) Implied
 - 13 45.1-203(i), (d) Plan shall include manner, time and distance for backfilling and grading, and mining and reclamation are to be conducted simultaneously insofar as possible.
 - 14 45.1-221 Implied; include height, plan dimensions, average elevation, and direction of pitch of area within 200 feet of the pile.
 - 15 45.1-223 Implied; width, height, and storage capacity.
- R1- Board of Conservation and Economic Development, Division of Mined Land Reclamation, Virginia Coal Surface Mining Reclamation Regulations, Regulations 1.01 through 11.02 (1972).
- 1 3.04 Two copies of a prospecting permit application, a plan for reclamation and method of operation form and two copies of prospecting map shall be submitted and approved before prospecting operations can begin.

- 2 5.03 Prospecting map shall contain all such information as required for application, renewal and completion maps as outlined in this regulation and shall show color code legend as described in Regulation 5.04.
- 3 5.03(d)
- 4 5.03(j)
- 5 5.03(e) Implied
- 6 5.04(i)
- 7 4.06(c)(2) Include a sketch of the anticipated geologic strata in the highwall and spoil retention method.
- 8 8.06 Minimum of 4 feet of material suitable for planting shall be placed over the pit area and over any toxic or acid-producing material previously placed in the pit.
- 9 8.11
- 10 10.01 Implied
- 11 10.01 Plants that will give quick, permanent, and protective cover and enrich soil will be given priority.
- 12 9.02, .04, .07 Intercept surface water with diversion ditches uphill from the highwall, prevent bench drainage from draining through the outer spoil, and adequately treating and properly draining any acid water resulting from the coal mining operation.
- 13 9.01
- 14 8.05, .06 Implied
- 15 8.08 Blend into the adjoining undisturbed lands.
- 16 8.05-.07
- 17 7.06, .07 Seeding and surfacing requirements are described in these regulations.
- 18 7.04 Bridges and culverts are required for all stream crossings.
- 19 10.01
- 20 10.04 Approved tree and shrub species, and spacing requirements are described.
- 21 10.06 Types and amounts of grasses, legumes and fertilizers are specified in Tables I through IV.
- 22 10.04(a), .07, .08 Other vegetation must be approved by the Division; annual grasses used for temporary, rapid establishment of vegetative cover is not acceptable as permanent cover.
- 23 10.04(c) Standards for tree seedlings shall require a minimum survival of 800 trees per acre including volunteer species.
- 24 10.09 Inspection and evaluation of vegetative cover shall be made by the Division as soon as possible after each growing season to determine if a satisfactory stand has been established.

- 25 5.03, .04 Two copies of enlarged topographic map at a scale of 1 inch equals 400 feet. A color coded legend is stipulated.
- 26 503(d) On the land to be affected and within 500 feet of such area.
- 27 503(d,i) Existing and proposed.
- 28 5.03(g) Anticipated drainage pattern on and away from area to be disturbed.
- 29 5.03(e) Cropline of the seam or deposit of coal to be mined and total number of acres involved.
- 30 5.03(b) Adjacent deep-mining operations and boundaries of surface properties and name of residents of the area within 500 feet.
- 31 4.06(c)(3) All sediment control structures to be constructed.
- 32 4.06(c)(3)
- 33 5.03(g) Implied
- 34 5.01, .02 The map shall be prepared under the direction of an engineer, geologist, or land surveyor. The certification as to the accuracy of the map will be signed and notarized.
- 35 6.01 Renewal application and map must be submitted within 10 days prior to anniversary date of the permit. Map to be at a scale of 1 inch equals 400 feet, and show essentially the same data as shown on prospecting and application maps. Color coded legend is stipulated.
- 36 6.04(b,c) Number of acres disturbed in the past 12 months (show in cross-hatch orange) and total acres since issuance of permit.
- 37 5.03(a)
- 38 5.04(a) Boundaries of permit area shown in red.
- 39 5.04 Shall be color coded.
- 40 6.04(d-i) Total acres regraded (show in brown) and revegetated (show in green), plus total acres revegetated since issuance of original permit. Map shall also show total acres of undisturbed land remaining under the original permit and species and amount of seed/seedlings and fertilizer sown the past 12 months.

II- Board of Conservation and Economic Development, Division of Mined Land Reclamation, Plan for Reclamation and Method of Operation, Form PR-1 (undated).

- 1 PR-1 Indicate on application.
- 2 PR-1
- 3 PR-1 Two (2) copies of a topographic map (scale 1 inch equals 400 feet) prepared by certified land surveyor or engineer and notarized to be accurate.

- 4 PR-1 Description of nature and extent of anticipated adverse disruptions and injurious effects upon surrounding land use.
- 5 PR-1 Indicate acreage on application.

WASHINGTON

- A1- Engrossed Substitute Senate Bill 139, Sections 1 through 24 (1970), known as the "Surface-Mined Land Reclamation Act"; hereinafter cited as ESSB 139.
- 1 ESSB 139(4)(1) Exploration plan not required, however, a mining permit is required if prospecting removes 10,000 tons of minerals or disturbs more than 2 acres in 12-month period, or more than 1 acre per every 8 acres prospected is disturbed.
 - 2 ESSB 139(4)(11)(a) Provide satisfactory evidence that all owners of possessory interest in land concur with proposed subsequent use. (Signed statements by owners).
 - 3 ESSB 139(4)(11)(d)
 - 4 ESSB 139(9)(6,7) Maximum depth of surface mining.
 - 5 ESSB 139(9)(3) Type of surface mining to be performed.
 - 6 ESSB 139(4)(11)(g) Control of contaminants and disposal of surface mining refuse.
 - 7 ESSB 139(10)(1-4)
 - 8 ESSB 139(4)(11)(e)
 - 9 ESSB 139(10)(5)
 - 10 ESSB 139(10)(8) Cover with at least 2 feet of clean fill.
 - 11 ESSB 139(4)(11)(c) Proposed practices to protect adjacent surface resources.
 - 12 ESSB 139(10)(1)(a,b)
 - 13 ESSB 139(10)(8) Implied
 - 14 ESSB 139(10)(7)
 - 15 ESSB 139(10)(8,9) Implied
 - 16 ESSB 139(10)(7,8) Implied
 - 17 ESSB 139(9)(4,5)
 - 18 ESSB 139(4)(11)(k)
 - 19 ESSB 139(10)(10) If operation will disturb a stream, operator must have a reclamation plan approved by Department of Fisheries with regard to that stream. Must be approved prior to application with Department of Natural Resources.
 - 20 ESSB 139(9)(8)
 - 21 ESSB 139(14) Annual report to be filed within 30 days following anniversary date of operating permit. Report to include: (1) Identification of operator and permit number; (2) Location by subdivision, section, township, and range, and with relation to nearest town or well known geographic feature.
 - 22 ESSB 139(14)(4)(b,c) Surface area mined out and estimated acreage to be disturbed during next 12-month period.
 - 23 ESSB 139(14)(1) Name and address of the operator.

- 24 ESSB 139(14)(1) Permit number.
 - 25 ESSB 139(14)(4)(f) Date of beginning, amount and current status of reclamation performed during the previous twelve months.
- R1- Washington Administrative Code, Sections 332-18-010 through 332-18-120 (Suppl. 1971), Rules and Regulations Relating to the Surface-Mined Land Reclamation Act; hereinafter cited as WAC 332-18.
- 1 WAC 332-18-015 Must submit satisfactory evidence that the proposed surface mining will not be contrary to local land use ordinances and regulations.
 - 2 WAC 332-18-100 Where diversion ditches or channels are required, must be designed to carry peak flow with probable recurrence frequency of once in ten years.
 - 3 WAC 332-18-090
 - 4 WAC 332-18-090 Implied
 - 5 WAC 332-18-110(1) Implied
 - 6 WAC 332-18-110(4) Stagnant water not allowed to develop.
 - 7 WAC 332-18-110(2) Measures must be taken to prevent undesirable seepage.
 - 8 WAC 332-18-100
 - 9 WAC 332-18-100 Proper drainage structures will be provided, if approved, if drainway crossing are necessary. Drainways may be diverted upon Department's approval.
 - 10 WAC 332-18-090 May include natural reseeding.
 - 11 WAC 332-18-090 Revegetation must be accomplished within 2 years of termination of operations or abandonment. Operator must file planting report 10 days after seeding or planting has been completed. Form furnished by Department.
 - 12 WAC 332-18-100 Implied
- I1- Washington Board of Natural Resources, Application of Operating Permit, Surface Mining, Form SM-2 (Rev. 1972).
- 1 SM-2
 - 2 SM-2 Quantity (tons or yards) of overburden and mineral.
 - 3 SM-2 Estimated total acreage to be mined plus estimated total acreage to be mined during first year.
- I2- General Information and Instructions for Applicants for a Surface Mining Permit.
- 1 Revised Code of Washington, Section 75.00.100 requires a water discharge permit from Department of Ecology; must have approved of Department of Fisheries and Department of Game. New Source Permit may be required from Regional Air Pollution Control Agency.

- 2 Flood control permit required for works or structures proposed in state flood control zones. State Water Code requires permit for appropriation and use of surface water. Discharge of wastes into state waters requires a permit together with complete plans and specifications. All permits can be obtained from Department of Ecology.

- 3 Three copies of maps having following standards:

<u>Site Size</u>	<u>Scale</u>
0 - 5 acres	Not less than 1" = 50 ft
5 - 10 acres	Not less than 1" = 100 ft
10 or more	Not less than 1" = 200 ft

Contour interval not more than 5 feet. Whenever feasible, aerial photographs should be submitted in support of application. Additional maps and details may be required by Department.

- 4 Existing roads and proposed access roads.
- 5 All natural and/or constructed drainways.
- 6 Boundaries of area affected.

WEST VIRGINIA

Al- Code of West Virginia, Article 6, Chapter 20, Sections 20-6-1 through 20-6-32 (as ammended 1971), known as the West Virginia Surface Mining and Reclamation Act; citations are to individual sections.

- 1 20-6-7 Reclamation plan for disturbed areas is required and will essentially be the same as that required for surface mining permit.
- 2 20-6-7 Reclamation plan required as for holders of surface mining permits; requirements described in 20-6-9.
- 3 20-6-9(a) Map to be prepared and certified by or under the supervision of a registered professional civil or mining engineer, or a registered land surveyor.
- 4 20-6-9(e)
- 5 20-6-9 Proposed method of operation.
- 6 20-6-9(h) Drainage plan to be submitted with application for surface mining and requires approval from Director of Water Resources.
- 7 20-6-13
- 8 20-6-14(5)
- 9 20-6-9
- 10 20-6-14(a) Impounded runoff water will be tested for pH, total acidity and total iron content.
- 11 20-6-14(4)
- 12 10-6-10
- 13 20-6-14(2)
- 14 20-6-11a(4) (a-g)
- 15 20-6-11a(1) Formula provided for pounds of explosive charge to be detonated at any one time.
- 16 20-6-9(f)
- 17 20-6-9(c) Adjacent underground mines, surface property boundaries, and names of surface and mineral owners within 500 feet of any part of the area to be disturbed.
- 18 20-6-9(i)
- 19 20-6-9 Within 30 days following request by the Director, the operator shall submit three copies of a progress map. Map shall be an enlarged U.S.G.S. topographic quadrangle with a preferred scale of 500 feet to the inch. The map shall contain information identical to that required for the proposed and final maps.
- 20 20-6-9(g) Implied
- 21 20-6-9 Implied
- 22 20-6-9 Area disturbed by operations to date of map.

- 23 20-6-9(f) Implied
- 24 20-6-9(g) Include date of preparation.
- A2- Code of West Virginia, Article 5D, Chapter 20, Sections 1 through 14 (1973), known and cited as the "Dam Control Act"; hereinafter cited as 20-5D.
 - 1 20-5D-6 Plans and specifications shall be in the charge of a registered professional engineer.
- R1- West Virginia Surface Mining Reclamation Regulations, Chapter 20-6, Series VII (1971); hereinafter cited as 20-6-VII.
 - 1 20-6-VII-4.05 Prospecting and reclamation procedures shall be governed by the following regulations of the Reclamation Commission:
 - a. Sec. 5 - Haulageways
 - b. Sec. 6 - Blasting
 - c. Sec. 7 - Drainage
 - d. Sec. 8 - Method of Operation
 - e. Sec. 9 - Revegetation and standards for evaluating vegetation cover
 - 2 20-6-VII-7.01 Plan to show drainage on and away from land to be disturbed, directional flow of water, constructed drainways, natural waterways, streams or tributaries receiving discharges, locations of all impoundments, water test sites, and treatment points.
 - 3 20-6-VII-8A, 8B
 - 4 20-6-VII-8B.03 Final regraded surface may deviate from original contour if deviation was proposed in plan and approved by the Director.
 - 5 20-6-VII-8A.06 Minimum of four (4) feet of material capable of supporting vegetation.
 - 6 20-6-VII-9A.01
 - 7 20-6-VII-9B.03 Soil analysis required for determining fertilizer recommendations.
 - 8 20-6-VII-8C.02 All impoundments must be approved by Director of Water Resources.
 - 9 20-6-VII-7B.01 Sediment impoundments shall be designed to have a minimum capacity to store 0.125 acre-feet per acre of disturbed land in the watershed.
 - 10 20-6-VII-7E.01 Design criteria and construction specifications shall be in accordance with the "Drainage Handbook for Surface Mining".
 - 11 20-6-VII-8C.02(i)
 - 12 20-6-VII-8C.02 Division of Water Resources reviews all portions of plan for water impoundments as they relate to water quality.
 - 13 20-6-VII-8E.02(a-c)
 - 14 20-6-VII-7B.01
 - 15 20-6-VII-8A.08

- 16 20-6-VII-6.03 Written notification prior to mining operations by certified mail to all landowners within 1,000 feet of proposed operation. U.S. Post Office certified receipt of notification to be maintained with blasting log.
 - 17 20-6-VII-5 Section describes numerous specifications.
 - 18 20-6-VII-5.08 Minor alterations and relocation of natural drainages are permitted as approved on reclamation plan.
 - 19 20-6-VII-9A.01 Stabilize affected areas as soon as possible by revegetation.
 - 20 20-6-VII-9B.04 Species to be planted governed by pH of soil. Common names of approved species are listed in Section 9.
 - 21 20-6-VII-9E.03 Seeding of annuals on areas where excessive erosion is likely to occur is highly recommended for achieving temporary cover, but shall not be considered acceptable as permanent cover.
 - 22 20-6-VII-9E.04-.06 Operator shall assume responsibility for revegetation until planted areas meet minimum cover standards; a) perennial legumes and grasses require at least 80 percent cover, b) survival of a minimum of 600 trees (including voluntary) and/or planted shrubs per acre, c) combination of perennials and woody plants require 60 percent establishment of ground cover and a 60 percent survival rate of woody plants
 - 23 20-6-VII-7C.02 Water pollution control permit required from Division of Water Resources. Operator must meet standards set forth in State Water Pollution Control Act. Also, mining operations must comply with State Air Pollution Control Law and rules and regulations pursuant to the law.
 - 24 20-6-VII-7C.01 All water discharged from permit area is to be monitored daily by the operator and a written record of testing dates and analytical data kept current and available for inspection. Monthly compilation to be submitted to the Chief of Reclamation Division.
 - 25 20-6-VII-10.01-.05 Five copies of an enlarged U.S.G.S. topographic quadrangle with a preferred scale of 500 feet to the inch. Legend shall be color coded. Aerial photographs may be acceptable.
 - 26 20-6-VII-7.01
- II- Department of Natural Resources, Division of Reclamation, Application for Prospecting, Form DR-3 (Rev. 1/74).
- 1 DR-3 Implied
 - 2 DR-3 Detailed explanation of drainage control measures.
 - 3 DR-3 Show existing oil and/or gas wells, deep mines, cemeteries and utilities on map.
 - 4 DR-3 Detailed explanation of future land use.
 - 5 DR-3 Detailed explanation.
 - 6 DR-3 Indicate species on application.

- 7 DR-3 Indicate method on application.
- 8 DR-3 DR-3
- 9 DR-3 Four copies of enlarged U.S.G.S. topographic quadrangle map.
- I2- Department of Natural Resources, Division of Reclamation, Application for Surface Mining, Form DR-4 (Rev. 1/74).
 - 1 DR-4
 - 2 DR-4 Acreage to be disturbed.
 - 3 DR-4 Surface mining application number.
- I3- Department of Natural Resources, Division of Reclamation, Mining and Reclamation Plan, Form DR-5 (Rev. 1/74).
 - 1 DR-5 Describe on form.
 - 2 DR-5 Principal seam(s) and thickness(es).
 - 3 DR-5 Detailed description of the mining sequence.
 - 4 DR-5 Detailed description for site preparation, removing and disposing of trees and brush, and haulageway construction.
 - 5 DR-5 Specifically describe operable equipment to be used for regrading.
 - 6 DR-5 Species, application rates and location.
 - 7 DR-5 Detailed description of procedure.
 - 8 DR-5
 - 9 DR-5 Indicate estimated mining period in months.
- I4- Department of Natural Resources, Division of Water Resources, Application for Mine Drainage, Section 7c.01 Water Quality Control (undated); hereinafter cited as AMD 7c.01.
 - 1 AMD 7c.01 Plan to include map.
 - 2 AMD 7c.01 Application AMD 7c.01 to be prepared by registered professional engineer.
 - 3 AMD 7c.01 Analysis to follow standard methods.
 - 4 AMD 7c.01 Submit cross-section and explain in detail how auger holes will be sealed.
 - 5 AMD 7c.01 Separate drainage plan map required and will include most of the information required for all other maps.
 - 6 AMD 7c.01 Proposed haulage roads.
 - 7 AMD 7c.01 Must indicate number of each hole.
 - 8 AMD 7c.01 Location of springs within 500 feet of proposed operation.
 - 9 AMD 7c.01
 - 10 AMD 7c.01 Implied; within 500 feet of proposed operation.

- 11 AMD 7c.01 Location of domestic wells within 1,000 feet of proposed operation.
- 12 AMD 7c.01 Implied
- 13 AMD 7c.01 Haulroads, drainage system, diversion ditches, drainways, water test sites and sampling points, location and size of culverts and bridges, barriers to deep mines.
- 14 AMD 7c.01 Include cropline(s).
- 15 AMD 7c.01 Include color code described in 20-6-VII-10.05.

WYOMING

- Al- Wyoming Statutes, Sections 35-502.1 through 35-502.56, Wyoming Statutes, 1957, as ammended, known as Wyoming Environmental Quality Act, Session Laws, 1973, Chapter 250, as ammended; hereinafter cited as 35-502.
- 1 35-502.30 Exploration by dozing requires special license.
 - 2 35-502.31(j)
 - 3 35-502.31(b)(iii)
 - 4 35-502.31(b)(ii)
 - 5 35-502.24(a)(vii) A general description of the land shall include as nearly as possible its vegetative cover, the annual rainfall, general directions and average velocities of the winds, indigenous wildlife, its past and present uses, its present surface waters, and adjudicated water rights and their immediate drainage areas and uses, and, if known, the nature and depth of the overburden, topsoil, subsoil, mineral seams or other deposits and any subsurface waters known to exist above the deepest projected depth of the mining operation.
 - 6 35-502.24(a)(vii)
 - 7 35-502.24(b)(i)
 - 8 35-502.24(b)
 - 9 35-502.24(b)(vi)
 - 10 35-502.32(a) Every operator operating under a permit or license shall comply with all requirements of this act, the rules and regulations promulgated hereunder, and reclamation plans and other terms and conditions of any permit or license.
 - 11 35-502.24(b)(ix)
 - 12 35-502.24(b)(viii)
 - 13 35-502.24(b)(viii) All piles to be clearly marked to avoid confusion.
 - 14 35-502.24:1(a)(i)
 - 15 35-502.24:1(a)(ii)
 - 16 35-502.32(b)(viii)
 - 17 35-502.24(b)(xvi)
 - 18 35-502.24(a)(viii,ix) Two copies of USGS topographic map, and two copies of a map in such detail as the administrator may specify.
 - 19 35-502.24(b)(v) In lieu of an original map, a reproduction of a USGS topographic map or aerial photograph is acceptable if the required information is platted.
 - 20 35-502.24(b)(v)
 - 21 35-502.24(b)(v) Existing and proposed roads, haulageways, and railroads.
 - 22 35-502.24(b)(v) Show elevations of surface, top and bottom of the mineral seam.

- 23 35-502.24(a)(ix) Drainage plan on, below, above and away from affected land, including subsurface water above the mineral seam to be removed.
 - 24 35-502.24(a)(ix)
 - 25 35-502.24(b)(v) Locate subsurface water above the mineral seam to be mined on cross sections.
 - 26 35-502.24(b)(v)
 - 27 35-502.24(b)(vii) Contour map of same scale as reclamation map showing approximate contours of affected area after reclamation is completed.
 - 28 35-502.24(a)(ix) Map shall also show:
 - (a) Names, last known addresses and boundary lines of present surface landowners and occupants on the adjacent land to be affected;
 - (b) Location, ownership, and uses of all buildings on, or on lands adjacent to, the land to be affected;
 - (c) Any political boundaries of special districts on or near the land to be affected.
 - 29 35-502.28(a)(ii) Operator shall submit an annual report within 30 days prior to the anniversary date of the permit. Report shall include name and address of the operator and be supplemented with maps, cross sections, aerial photographs or other material as may be required.
 - 30 35-502.28(a)(ii)(A,C) Extent to which mining operations have been carried out. Include quantity of overburden removed, quantity of minerals removed and number of acres affected.
 - 31 35-502.28(a)(i) Permit number.
 - 32 35-502.28(a)(ii)(A)
 - 33 35-502.28(a)(ii) As required by administrator.
 - 34 35-502.28(a)(ii)(B)
 - 35 35-502.28(a)(iii) Revised schedule or time table of operations and reclamation and estimate of number of acres to be affected during next one year period.
- R1- Wyoming Land Quality Rules and Regulations, Chapters I through VIII (1975); citations herein begin with chapters.
- 1 General description to include vegetative cover, annual rainfall, general directions and average velocities of winds, indigenous wildlife, past and present land uses, the present surface waters, water rights, and immediate drainage areas and uses, the nature and depth of overburden, topsoil, mineral seams and other deposits, and subsurface waters known to exist above deepest projected depth of exploration operation.
 - 2 V(i)(j)(2)
 - 3 V(1)(j)(4)
 - 4 V(1)(j)(5)

- 5 V(i)(j)(2) Includes threats to human or animal health or safety.
- 6 V(1)(l) Include estimate of the cost of hiring an independent contractor to accomplish the reclamation of all affected land in the license area.
- 7 V(1)(k)
- 8 V(1)(j)(1)
- 9 V(1)(j)(3)
- 10 V(1)(c) Requires one map to be prepared on topographic base map not less than scale 1 inch equals 400 feet to include all areas within one-half mile of roads to be constructed, drill pad or exploratory pit.
- 11 V(1)(d) A USGS topographic map to show general area of exploration. Aerial photo of suitable scale may be substituted for base map.
- 12 V(1)(c) To include public roads providing access and utilities to area.
- 13 V(1)(c)
- 14 V(1)(c) Implied
- 15 V(1)(j) A reclamation plan to include method of segregating topsoil, subsoil, and overburden, protecting and conserving them from wind and water erosion, and topsoil replacement.
- 16 V(2)(c) Operating reports not required for exploration of less than one year's duration. Renewal reports must be filed within 30 days before anniversary date of license. Renewal reports to include:
 1. Name of licensee and license number.
 2. Location of area by section, quarter section, township, and range.
 3. Acreage disturbed during the last year.
 4. Estimated acreage to be disturbed during next twelve (12) months.
 5. Current status of reclamation performed.
- 17 V(2)(c)(5) Updated maps.
- 18 VI(5)(b) Detailed soils survey and analysis may be required. Subsoil nature and thickness is to be described.
- 19 VI(3)(a)(1,2,3) Common and/or scientific name; grasses - estimated abundance per square yard; trees, shrubs, and forbs - estimated abundance; trees - estimate range of heights and diameters; noxious weeds - abundance.
- 20 VI(3)(a)(4) Total annual precipitation from nearest official weather reporting station unless greater than 50 miles. Otherwise, may be required to keep precipitation records.
- 21 VI(3)(a)(5) As recorded at the nearest weather station or at the site.

- 22 VI(4) (a,b,c) List of indigenous vertebrate wildlife species observed within one (1) mile of permit area. Special attention to the "Endangered Species List" of Wyoming Game and Fish Department. Wyoming Game & Fish Department to be contacted if significant habitat or migration route disruption likely to occur.
- 23 VI(2) (a)
- 24 II(1) (b) (1) Reclamation shall restore land to a condition equal to or greater than the "highest previous use".
- 25 VI(5) (d)
- 26 VI(2) (c)
- 27 II(2) (a) (1)
- 28 II(1)
- 29 II(4) (c) (2)
- 30 II(2) (a) (1) Implied
- 31 II(4) (a) (2) Also applies to subsoil if found to be more suitable than topsoil.
- 32 III(6) (a)
- 33 III(6) (b) (2)
- 34 III(6) (d) Must be approved by State Engineer's Office.
- 35 III(6) (b) (4) Waters must be suitable for use as determined by applicable state and federal standards.
- 36 III(6) (b) (4)
- 37 VIII(3) (a) Implied
- 38 II(4) (c) (1) Implied
- 39 II(4) (c) (2)
- 40 VI(2) (e) Follow guidelines in Chapter VIII, Section 1, of these regulations.
- 41 VIII(1) (d) (1)
- 42 II(5) (a) Implied
- 43 II(5) (d) Species to be used shall be in accordance with rules, regulations, specifications, and standards adopted by the State Conservation Commission and approved by the Land Quality Division.
- 44 II(5) (d)
- 45 II(5) (e) Test plots are required.
- 46 II(5) (f) Revegetation shall be deemed complete when the vegetative cover is shown to be capable of renewing itself under natural conditions and capable of withstanding grazing pressure comparable to that which the land could have sustained prior to mining. Reforestation shall be deemed complete at such time 75 percent of the seedlings planted show continued growth over a period of 5 years after planting.

- 47 III(2)(h) Waters flowing through or by mining operation shall meet standards set by U.S. Environmental Protection Agency and Wyoming Water Quality Division in regard to effect of operation upon such waters.
 - 48 IV(1)(a) Schedule to be coordinated with a map indicating the areas of progressive mining and reclamation. Operator shall establish reclamation concurrently with mining operations whenever possible.
 - 49 III(3)(a) Operator shall list and describe the name, location, size, and approximate intermittent flow intervals for the present surface waters in and adjacent to the proposed permit area.
 - 50 III(3)(b) Monitoring of surface water conditions may be required during operations based upon the existing water conditions.
 - 51 III(4)(a) Operator shall submit an estimate of the depth and quality of subsurface waters. Operator may be required to conduct test drilling and monitoring to determine the exact depth, quantity and quality of ground water.
 - 52 VI(5)(d) On cross sections
- II- Wyoming Department of Environmental Quality, Land Quality Division, Application for a Permit to Mine, Form 1 (July, 1975).
- 1 Indicate dates and acreage to be affected on application.
 - 2 Suggested Scales:

up to 10 acres - 1 inch = 100 feet
up to 40 acres - 1 inch = 200 feet
40 acres or more - 1 inch = 400 feet
Map width not to exceed 48 inches.

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