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knowledge if the waiver has been recorded in the public property records pursuant to State law. The waiver must be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver. In such case, a copy of the lease or deed must be included with the permit application.

(3) The commissioner will not approve an application for operations on lands within 100 feet, measured horizontally, of the outside right-of-way of any public road (except where mine access roads or haulage roads join such right-of-way), except as follows. The commissioner may allow areas within 100 feet to be affected or may allow the public road to be relocated if the commissioner:

(A) requires the applicant to obtain any necessary approval of the governmental authority with jurisdiction over the public road;

(B) provides opportunity after appropriate notice to the public for a public hearing in the locality of the proposed mining operations for the purpose of determining whether the interests of the public and affected landowners will be protected;

(C) makes a written finding within 30 days after any such hearing or at the end of the public comment period if no hearing is held, as to whether the interests of the public and affected landowners will be protected. (Eff. / /82, Register)

Authority: AS 41.45.260

11 AAC 90.103. ASSISTANCE REVIEW. If the commissioner is unable to determine whether the proposed surface coal mining operation is located within the lands identified in AS 41.45.260(c)(3), the commissioner will transmit a copy of the relevant portions of the permit application to the appropriate federal, state, municipal agency or native corporation or village for a determination of the relevant boundaries or distances, with a request that it respond in writing within 30 days of receipt of the request. The commissioner will presume that the proposed surface mining operation is not located within the boundaries of any such lands if no response is returned within the 30 day period. (Eff. / /82, Register)

Authority: AS 41.45.260

11 AAC 90.105. VALID EXISTING RIGHTS. (a) Except for haul roads, "valid existing rights" means property rights in existence on August 3, 1977, that were created by a legally binding conveyance, lease, contract or other instrument which authorizes the applicant to produce coal and the person proposing to conduct a surface coal mining operation on such lands either:

(1) had been validly issued or exercised a good faith effort to obtain, on or before August 3, 1977, all state and federal permits necessary to conduct surface coal mining operations on those lands, or

(2) can demonstrate that the coal is both needed for, and immediately adjacent to, an ongoing surface coal mining operation for which all permits were obtained prior to August 3, 1977.

(b) A determination that coal is "needed for" will be based upon a finding that additional production originating on adjacent land is necessary to preclude a financial hardship on the mining operation measured by standard accounting and financial procedures provided that:

(1) a fair rate of return on invested capital cannot be achieved on existing permitted land;

(2) a less than fair rate-of-return on invested capital is attributable to the provision of this chapter; and

(3) the operator can establish that the adjacent unpermitted land is part of the operator's mining plan.

(c) For haul roads, "valid existing rights" means:

(1) a recorded right of way, recorded easement, or a permit for coal haul road recorded as of August 3, 1977; or

(2) any other road in existence as of August 3, 1977.

(d) The applicant may establish a valid existing right by demonstrating that the operation existed at the time a structure, road, cemetery, or other activity protected in this section came into existence.

(e) "Valid Existing Rights" does not mean that mere expectation of a right to conduct surface coal mining operations or the right to conduct underground coal mining. (Eff. / /82, Register)

Authority: AS 41.45.260

11 AAC 90.107. EXPLORATION. Designation of any area as unsuitable for all or certain types of surface coal mining operations does not preclude exploration in the area, if conducted in accordance with this chapter. Exploration operations shall be approved only when the commissioner finds that the proposed exploration does not interfere with any value for which the area has been designated unsuitable for surface coal mining operations. (Eff. / /82, Register)

Authority: AS AS 41.45.260

11 AAC 90.109. LANDS DESIGNATED UNSUITABLE. The commissioner will not issue a permit for surface coal mining operations which are inconsistent with designations made pursuant to this chapter. (Eff. / /82, Register)

Authority: AS 41.45.180

Definitions related to Articles 5 & 6

"Fragile lands" means geographic areas containing natural, ecologic, scientific or aesthetic resources that could be damaged or destroyed by surface coal mining and reclamation operations. These lands may include, but are not limited to, uncommon geologic features, National Natural Landmark sites, groundwater recharge areas, valuable habitats for fish and wildlife, critical habitats for endangered species of animals and plants, wetlands, environmental corridors containing concentrations of ecologic and aesthetic features, areas of recreational value due to high environmental quality, buffer zones around areas where surface coal mining is prohibited, and important, unique or highly productive soils or mineral resources.

"Historic lands" means historic or cultural districts, places, structures or objects, including but not limited to sites listed or eligible for listing on a state or National Register of Historic Places, National Historic Landmarks, archeological and paleontological sites, cultural or religious districts, places, or objects.

"Natural hazard lands" means geographic areas in which natural conditions exist that pose or, as a result of surface coal mining operations, may pose a threat to the health, safety, or welfare of people, property or the environment, including but not limited to areas subject to landslides, cave ins, subsidence, substantial erosion, earthquakes, unstable geology, long term disruptions or degradation of surface and subsurface water supplies, and substantial increases in flood heights or frequencies.

"Occupied dwelling" means any building that is currently being used on a regular basis for human habitation.

"Public building" means any structure that is owned or leased by a public agency or used by a government agency principally for public business, meetings, or other group gatherings.

"Public park" means any area dedicated or designated by any federal, state, municipal agency or native village for recreational use, despite whether such use is limited to certain times or days. It includes any land leased, reserved, or held open to the public because of that use.

"Public roads" means any thoroughfare constructed or maintained with public funds which is open to the public for passage of motorized vehicles.

"Cemetery" means any area of land where human bodies are interred.

PETITION FORMS

We expect the petition forms to request the following information:

1. petitioner's name, address, telephone number
2. identification of the petitioner's interest which is or may be adversely affected
3. U.S.G.S. 7 1/2 minute topographic map(s) marked to show the location and size of the geographic area covered by the petition
4. a description of how surface coal mining operations in the area have or may adversely affect people, land, air, water, or other resources
5. allegations of facts and supporting evidence which would tend to establish that the area is unsuitable for all or certain types of surface coal mining operations

Petitions to terminate a designation would include 1, 2, and 3 above, and

4. allegations of facts with supporting evidence, not contained in the record of the proceeding in which the area was designated as unsuitable which would tend to establish the allegations that the designation should be terminated, including allegations that
   (a) reclamation is now technologically feasible, if the designation was based on a finding of technological unfeasibility;
   (b) that the resources or conditions specified in the original designation decision will no longer be impacted or that the nature or severity of the impact has changed.

SB 803

SURFACE MINING REGULATORY PROCESS OVERVIEW
April 6, 1982

The Department of Natural Resources is beginning the process of drafting a set of regulations which will implement the Alaska Surface Coal Mining Control and Reclamation Act, when passed. Although this state act is still in bill form in the legislature, the implementing regulations will be complex and comprehensive and, in order to meet projected deadlines, the Department is beginning the drafting process now. Our aim is to submit a program to the United States Department of the Interior by July 1, 1982. To aid in drafting the regulations the Department has enlisted the assistance of various experts from within the Department and from such sources as other state, federal, and local agencies; private industry; environmental organizations and native corporations. The Department welcomes the participation of any other persons who are interested in the process.

The Federal Surface Mining Control and Reclamation Act of 1977 (SMCRA) created programs for surface coal mining regulation and for the reclamation of abandoned mine lands. SMCRA and the regulations of the Office of Surface Mining, which administers the federal act, set up a series of standards by which the Secretary of the Interior will judge whether state program submissions are approved. If the Alaska program submission is approved, the state will be the primary regulator of surface coal mining activities on both state and private lands in Alaska. It should then be a relatively easy step for the state to be granted authority to regulate such activites on federal lands in Alaska. Our goal is to draft a program which will meet Alaska's unique environmental concerns and which will be approved by the federal government.

Standards for program approval

The standards for approval of the state program may be summarized as follows:

--With regard to the federal Act (SMCRA), the State laws and regulations must be no less stringent than, meet the minimum requirements of and include all applicable provisions of SMCRA.

--With regard to the federal regulations, the State laws and regulations must be no less effective than the federal regulations in meeting the requirements of SMCRA.

--Enforcement provisions of a state program must incorporate sanctions no less stringent than those of SMCRA; civil and criminal penalties must be no less stringent than SMCRA; and there must be the same or similar procedural requirements relating to both.

There may be particular standards governing particular sections of the federal program which will be discussed when the corresponding sections of the draft regulations are distributed for review.

The bill currently under consideration in the legislature meets the basic standards for approval. Several key areas of SMCRA were deferred to the implementing regulations, however, meaning that those areas will have to meet the "no less stringent than" standard applicable to the federal law. These areas include the contents of permit applications and reclamation plans, performance standards applicable to surface coal mining and reclamation operations and to the surface impacts of underground coal mining, and some of the public participation requirements which apply to various processes under the program. Other areas under the regulations will generally be subject to the "as effective as" standard. Please keep these tests in mind when reviewing draft regulations.

Regulation subject areas

The Federal regulations contain the following main subject areas, which the state program submission will need to address:

A. General
   1. Definitions
   2. Restrictions on financial interests
   3. Applicability and exemptions
   4. Public information
B. Areas unsuitable for mining
C. Permitting
   1. Application requirements, including legal, financial, and compliance information; information on environmental resources; and a reclamation and operations plan
   2. Permitting process
   3. Small operator assistance
D. Bonding and insurance
E. Performance standards
   1. signs and markers
   2. casing and sealing of drilled holes
   3. topsoil
   4. hydrologic balance
   5. coal recovery
   6. use of explosives
   7. disposal of excess spoil
   8. protection of underground mining
   9. coal processing waste
   10. air resources
   11. fish, wildlife and related values
   12. slides and other damage
   13. backfilling and grading
   14. contemporaneous reclamation
   15. revegetation
   16. postmining land use
   17. roads
   18. transportation, support and utility installations
   19. subsidence control
F. Inspection and enforcement
G. Abandoned mine land reclamation

The regulation drafting process

The Department is not starting from scratch in approaching the drafting of its regulations. During 1979 and 1980, the Department drafted a complete program submission, which included both a draft bill and regulations. This draft is referred to as the 1980 draft, and was the product of an extensive work effort directed by the Commissioner's office and the Alaska Surface Mining Advisory Committee. The 1980 draft included extensive input from other interested agencies, industry, members of the public, and the Office of Surface Mining. The 1980 draft regulations reflected the then-current draft bill, as well as the then-current federal regulations.

Much has changed since the 1980 draft regulations. The bill presently under consideration by the legislature is different from the 1980 bill draft Many of the federal regulations in effect in 1980 have been changed, either as the result of judicial action or as a result of changes in regulations made by

the Office of Surface Mining. In addition, the "as effective as" standard for judging state regulations' compliance with federal regulations is new and should give the Department of Natural Resources considerably more flexibility in drafting regulations which meet the unique environmental conditions found in Alaska. Unfortunately, the Office of Surface Mining is not very far along in its revision of its regulations. It appears likely that the final federal regulations will not all be in place before 1983, and it is likely that many of them will be the subject of court challenges even then.

The Department of Natural Resources is pursuing the following approach in drafting its regulations. Our contractor has reviewed the 1980 draft regulations. Since those regulations had already been the subject of review and issue resolution by other agencies, industry, members of the public, the Surface Mining Advisory Committee, and the Office of Surface Mining, the Department has not made extensive changes in the 1980 draft regulations, except where the federal regulations have been changed or are proposed to be changed, or where the experience of our contractors with other state programs has suggested a better alternative to the 1980 draft. Of course, we have also examined and changed the 1980 draft to conform to Senate Bill 843, the current surface mining bill. Proposed federal rule-changes cause a problem in drafting a state program submission because of the uncertainty of when any proposed changes will become final and how such final regulations may differ from the proposals based on the extensive public comment which the Office of Surface Mining receives on most of its proposals. We are carefully examining proposed federal rule-changes. Where the proposed change appears to be an improvement on the 1980 draft regulation, and where we believe that the proposed change could be justified under the "as effective as" standard, even if it is not ultimately adopted by the Office of Surface Mining, some or all of the proposed change has been incorporated in the draft which we are disseminating. Other federal proposals have not been incorporated at this time; however, the Department is continuing to monitor these rule changes carefully and will look to incorporate whatever proposed concepts that seem to be appropriate for an Alaska surface mining program. The tables which accompany each group of our draft regulations indicates whether or not there are final or proposed federal regulations in that area.

Beginning with this April 6 meeting, we envision using the following process in proceeding with the development of our surface mining regulations and program submission. We are asking today that everybody who is interested in assisting in this process complete a short form which indicates what regulations they are interested in reviewing and working on. As sections of the draft regulations are ready for review we will distribute them to the interested members of this working group, and request a review and comment within a relatively short period of time, usually about 2 weeks. Based on the comments which the Department receives, we will either proceed with a new draft which considers all of the comments made or attempt some kind of dialogue with the reviewers to redraft the regulations in a manner which satisfies the concerns raised. Depending on the nature of the comments, this dialogue would either take place at one or more meetings or through telephone calls. Our goal is to have all sections of the draft regulations distributed this month and a package to go to formal rule-making by June 1.

Today we are distributing the draft regulations on the designation of lands unsuitable process, as well as the appropriate portion of Senate Bill 843. This seemed to be an appropriate area with which to begin since that process cuts across a range of disciplines and interests. It also serves to

introduce you to some of the common threads you will encounter in reviewing these draft regulations. The federal law and regulations contain a number of systems, all of which are highly procedural. Many of these procedures were designed to insure public participation in the whole area of regulation of surface coal mining activities. Before approving a state program, the Secretary of the Interior must find that the program provisions for public participation are as effective as those of the federal regulations. The lands unsuitable area is one of these systems.

You will find it difficult to track the draft regulations without reading the cross references to the Senate Bill, which we have provided. We have followed the guidance of the Drafting Manual for Administrative Regulations in not restating or paraphrasing statutes as regulations, but we have tried to reference the appropriate statutory section where necessary. We suggest that you read AS 41.45.260 before reviewing the draft regulations.

Please note that a great deal of checking of internal cross references, making style and references consistent, and reorganizing of materials will take place prior to formal rule-making. All of the definitions will be put in one section, and we are going to attempt, to the extent possible, to standardize many of the notice and hearing provisions under the different systems, and place them in one place. We welcome any suggestions along these lines. For the purposes of reviewing the draft regulations, however, we have kept many of these provisions intact to aid the reviewers.

It is not necessary that all comments on the draft regulations be made to us in writing, or with any other formality. Feel free to return a marked-up copy to us with your comments. Also feel free to call and ask questions about the material. We have found that many concerns can be explained in terms of the requirements imposed by federal law.

We are asking that those of you interested in reviewing the designation of lands unsuitable regulations respond to us by April 19, 1982. Within the next week we will mail to you a list of the people in this working group and their areas of interest, along with some additional sections of the draft regulations. We may need to solicit further help in certain areas based on the responses today. Please suggest any other persons who you feel might be interested in this effort.

We thank you for your help.

Laurel Murphy 265-4222
Howard Roitman 265-4221
John Antenucci 265-4220

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Pouch 7-005
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(d) The commissioner will, in his discretion, disregard existing acreage limitations and will adopt a bidding method under AS 38.05.180(f).

(e) All sales of re-offered land will be by competitive bids after proper notice to the public. (Eff. 7/22/79, Reg. 71)

Authority: AS 38.05.035
AS 38.05.145
AS 38.05.180

CHAPTER 84.
OTHER LEASABLE MINERALS

Article

Editor's Note: The mineral-leasing regulations in chapters 82, 83, 84, 86 and 88 of this title, effective September 5, 1974, and distributed in Alaska Administrative Register 51, constitute a comprehensive reorganization and revision of this material, and thus the history line at the end of each section does not reflect the history of the provision before September 5, 1974, and the section numbering may or may not be related to the numbering before that date.

ARTICLE 1.
COAL

Section

11 AAC 84.100. LEASING METHOD. (a) Land classified as competitive for coal leasing purposes may only be leased under the competitive procedures provided in 11 AAC 82.

(b) Land classified as noncompetitive for coal leasing purposes may only be obtained through the noncompetitive procedures provided in 11 AAC 82. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)

11 AAC 84.105. PUBLIC AND CHARITABLE USE. (a) Sales to a qualified government or

cooperative agency under AS 38.05.315 may not be made at less than 50 percent of the appraised price. Consideration will only be given to requests filed 60 days in advance of sales initiated by the state for competitive leasing. Leases on school, university, or mental health land may only be made at the full appraised price.

(b) A qualified government or cooperative agency as provided by AS 38.05.315 shall furnish substantive information that it is qualified within the meaning of AS 38.05, and that the disposal of coal deposits by lease, sale or other methods at less than the appraised price will be fair and proper and in the best interest of the public. This statement must include the nature of the public service or function rendered by the qualified government or cooperative agency and outline the plan of operation, including a showing that the coal used will be used only in the plants and facilities owned, leased, or operated by the agency, and the reason upon which the right to be considered as other than an ordinary individual or corporation is based. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145
AS 38.05.150(b)
AS 38.05.315

11 AAC 84.110. STATEMENT OF CONFORMANCE WITH ACREAGE LIMITATIONS. Every applicant for a prospecting permit or lease shall show that, with the area applied for, his or its interest or interests in such permits, leases, or applications for them, directly or indirectly, do not exceed the acreage limitations, or that an application for exception under AS 38.05.140(a) has been filed. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020(b)(1)
AS 38.05.035(a)(4)
AS 38.05.145(a)

11 AAC 84.115. PROSPECTING PERMITS OPERATIONS. Before commencing operations under a prospecting permit, the permittee shall submit a plan of operations for approval by the director. The prospecting plan shall describe the method to be used in prospecting the land, the area to be covered, the type of equipment to be used, the estimated time schedule for the operations and any other information the director may require. Operations may not

commence prior to approval of the plan. The approved plan is subject to any conditions the director may determine are necessary to protect the land and minimize damage to the land and its resources. The director shall require a corporate surety or personal bond in a sum of $1,000 or more for each permit. The bond shall be filed before commencing operations. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.035(a)(4)
AS 38.05.145(a)
AS 38.05.150(c)

11 AAC 84.120. PERMIT EXTENSIONS. (a) Any coal prospecting permit may be extended by the director for a period of two years if he finds that the permittee has been unable, with the exercise of reasonable diligence, to determine the existence or workability of coal deposits in the area covered by the permit and desires to pursue further prospecting or exploration, or for other reasons in the opinion of the director warranting an extension.

(b) If application is made for extension of a coal prospecting permit, it must be filed in duplicate within the 90-day period immediately preceding the date on which the permit expires.

(c) An application for extension may not be considered unless accompanied by a showing that the applicant has performed at least $1.00 per acre worth of drilling, excavating, geological or geophysical work for the benefit of the permit. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.035(a)(4)
AS 38.05.145(a)
AS 38.05.150(c)

11 AAC 84.125. PERMIT ROYALTY. (a) The coal prospecting permit shall state the amount of royalty to be paid for coal mined and marketed or used from the land covered by the permit during the time that the permit is in effect, and shall also state the amount of royalty to be paid under any lease that may supersede the permit. The royalty paid for coal mined and marketed or used during the time that the permit is in effect shall be greater by at least five cents per ton (2,000 avoirdupois pounds) than the royalty to be paid under any superseding lease, and in no case may the royalty paid during the time the permit is in effect be less than 10 cents per ton (2,000 avoirdupois pounds).

(b) Royalties shall be paid within 30 days after the end of each calendar month during which the coal was disposed of. Remittances are payable to the Department of Revenue of the State of Alaska. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020(b)(1)
AS 38.05.145(a)

11 AAC 84.130. PERMIT CONVERSION TO LEASE. (a) At any time while a coal prospecting permit is in effect, if the permittee shows to the satisfaction of the director that the land covered by the permit contains coal in commercial quantities and submits a satisfactory mining plan, the permittee is entitled to a noncompetitive coal lease on all or part of the land covered by the permit.

(b) If during the time that a coal prospecting permit is in effect, more than 300 tons (2,000 avoirdupois pounds per ton) of coal is used or marketed in any three-month period, the prospecting permit shall be converted to a lease on all or part of the land included in the permit. The lessee shall submit a satisfactory mining plan. The starting date of the lease shall be the first day of the month following the three-month period in which the coal was removed. Failure to convert to a lease is grounds for cancellation of the permit. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)
AS 38.05.150(c)

11 AAC 84.135. USE OF TIMBER. If the holder of a coal prospecting permit wishes to use timber on the land covered by the permit for firewood, fencing, buildings, mining, prospecting, or for domestic purposes, he may apply to the division for a personal use permit; but no timber may be sold, bartered, or removed from the area covered by the permit except under the provisions of regulations governing disposal of timber and materials. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020(b)(1)
AS 38.05.145(a)

11 AAC 84.140. COMPETITIVE SALE NOTICE. The notice of a lease offer for a competitive sale shall specify, in addition to the requirements of 11 AAC 82.415, the minimum

expenditure that will be required by sec. 150 of this chapter. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)
AS 38.05.345(a)

11 AAC 84.145. LEASE ROYALTIES AND RENTALS. (a) The amount of royalty to be paid under a coal lease shall be stated in the lease, and in no case may the amount be less than five cents per ton (2,000 avoirdupois pounds) of coal mined and marketed or used. The amount of rental may not be less than 25 cents per acre for the first year the lease is in effect, not less than 50 cents per acre for the second, third, fourth and fifth years, respectively, and not less than $1.00 per acre for each year thereafter during the continuance of the lease. All leases shall provide that the annual rental payment is subject to adjustment at intervals of no more than 20 years and that any adjustments will be based on the current rates for properties similarly situated. The requirements of this section pertaining to royalty may be waived if the privileges of a government or cooperative agency are considered favorably, but the amount of the rental may not be reduced.

(b) Royalties shall be paid within 30 days after the end of each calendar month except when the payment of rentals has established a credit against royalties as provided in (c) of this section. Remittances shall be made payable to the Department of Revenue of the State of Alaska.

(c) The rental payments for the first year of the lease are due on the date that the lease is granted, and the rental for each succeeding year shall be paid on or before the beginning of each lease year. The rental for each year is credited against the royalties as they accrue for that year. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)

11 AAC 84.150. MINIMUM EXPENDITURE. A minimum expenditure for mine operations, development, or improvement purposes, on or for the benefit of the leased land, is a condition in each lease. Not less than one-third of the expenditure must be made during the first year and a like amount each year for the two succeeding years. The investment during any one year over the required amount for that year may be credited to the expenditure required for the ensuing year or years. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)
AS 38.05.150(e)

11 AAC 84.155. MINIMUM LEASE BOND. A coal lease bond is required before a lease is issued, and in no case may the amount be less than $1.00 per acre. The director may, in the event of any significant change in the scope of operations or prior to approval of an assignment, alter the amount of the bond. The bond shall be filed in accordance with 11 AAC 82.600. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)

11 AAC 84.160. TERMINATION. If the lessee fails to comply with the provisions of the lease, or of the statutes, and regulations in force at the date of the lease, and the failure continues for 30 days after service of written notice by the director, the director may institute appropriate proceedings in a court of competent jurisdiction for the termination of the lease. A waiver of a cause of termination does not prevent the termination of the lease for any other cause or for the same cause occurring at any other time. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)

11 AAC 84.165. ASSIGNMENTS. Before approval of a transfer of a permit or lease may be given

(1) the account of royalties and rentals under the permit or lease must be in good standing; and

(2) the assignee must file a statement that he will carry out prospecting, development, or mining work that was prescribed in the required mining lease plan or file an acceptable alternate plan. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)

11 AAC 84.170. LIMITATION ON OVERRIDING ROYALTIES. No overriding royalty interests may be created which exceed the rate of royalty first payable to the State of Alaska under the lease or permit unless the lessee shows to the satisfaction of the director that the royalty is justified by substantial

improvements to the leasehold. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020(b)
AS 38.05.145(a)

ARTICLE 2.
PHOSPHATES

Section
200. Phosphate leasing method

11 AAC 84.200. PHOSPHATE LEASING METHOD. Phosphate leases authorized by AS 38.05.155 are subject to disposition under 11 AAC 82. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020
AS 38.05.145(a)

ARTICLE 3.
OIL SHALE

Section
300. Oil shale leasing method

11 AAC 84.300. OIL SHALE LEASING METHOD. Oil shale leases authorized by AS 38.05.160 are subject to disposition under 11 AAC 82. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020
AS 38.05.145(a)

ARTICLE 4.
SODIUM

Section
400. Sodium leasing method

11 AAC 84.400. SODIUM LEASING METHOD. (a) Sodium leases authorized under AS 38.05.165 for land which the director determines is known to contain valuable deposits of sodium compounds are issued competitively under 11 AAC 82.

(b) Prospecting permits authorized under AS 38.05.165 for land not known to contain valuable deposits of sodium compounds are issued noncompetitively under 11 AAC 82. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020
AS 38.05.145(a)

ARTICLE 5.
SULPHUR

Section
500. Sulphur leasing method

11 AAC 84.500. SULPHUR LEASING METHOD. (a) Sulphur leases authorized under AS 38.05.170 for land which the director determines is known to contain valuable deposits of sulphur are issued competitively under 11 AAC 82.

(b) Prospecting permits authorized under AS 38.05.165 for land not known to contain valuable deposits of sulphur are issued noncompetitively under 11 AAC 82. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020
AS 38.05.145(a)

ARTICLE 6.
POTASSIUM

Section
600. Potassium leasing method

11 AAC 84.600. POTASSIUM LEASING METHOD. (a) Potassium leases authorized under AS 38.05.175 for land which the director determines is known to contain valuable deposits of potassium compounds are issued competitively under 11 AAC 82.

(b) Prospecting permits authorized under AS 38.05.175 for land not known to contain valuable deposits of potassium compounds are issued noncompetitively under 11 AAC 82. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020
AS 38.05.145(a)

ARTICLE 7.
GEOTHERMAL RESOURCES

Section
700. Geothermal resources leasing method
710. Qualifications
720. Known geothermal resource area
730. Plan of operations

11 AAC 84.700. GEOTHERMAL RESOURCES LEASING METHOD. (a) Geothermal resource leases authorized under AS

38.05.181 for lands classified as known geothermal resource areas are issued competitively under 11 AAC 82.

(b) Prospecting permits authorized under AS 38.05.181 for lands which have not been classified as geothermal resource areas are issued noncompetitively under 11 AAC 82. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020
AS 38.05.145(a)

11 AAC 84.710. QUALIFICATIONS. The provisions of 11 AAC 82.200 which are not inconsistent with the qualification requirements of AS 38.05.181 are also applicable to persons who may hold geothermal permits and leases. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020
AS 38.05.145(a)

11 AAC 84.720. KNOWN GEOTHERMAL RESOURCE AREA. AS 38.05.181(b)(2) is interpreted to require that an area be identified around each well capable of producing geothermal resources in commercial quantities which is reasonably proven by the well and other information to be capable of producing geothermal resources in commercial quantities. In addition, other areas which meet the criteria of AS 38.05.181(q)(8) may be classified as competitive. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)
AS 38.05.181

11 AAC 84.730. PLAN OF OPERATIONS. A permittee or lessee shall submit a plan of operations for approval by the director prior to commencing any operations on a permit or lease. Operations may not commence prior to approval of the plan and are subject to any conditions the director may determine are necessary to prevent waste and to protect or minimize damage to the land and its resources. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.145(a)
AS 38.05.181

CHAPTER 86.
MINING RIGHTS

Article

1. General Provisions (11 AAC 86.100–11 AAC 86.135)
2. Staking, Recording and Maintaining Claims and Leasehold Locations (11 AAC 86.200–11 AAC 86.230)
3. Mining Leases (11 AAC 86.300–11 AAC 86.325)
4. Prospecting Sites (11 AAC 86.400–11 AAC 86.435)
5. Offshore Permits and Leases (11 AAC 86.500–11 AAC 86.570)
6. Millsites (11 AAC 86.600)

Editor's Note: The mineral-leasing regulations in chapters 82, 83, 84, 86 and 88 of this title, effective September 5, 1974, and distributed in Alaska Administrative Register 51, constitute a comprehensive reorganization and revision of this material, and thus the history line at the end of each section does not reflect the history of the provisions before September 5, 1974, and the section numbering may or may not be related to the numbering before that date.

ARTICLE 1.
GENERAL PROVISIONS

Section

100. Applicability
105. Discovery defined
110. Existing mining claims, federal leases and permits
115. Locations prior to tentative approval
120. Conditional mining leases and locations
125. Failure to comply
130. Filing and recording
135. Mineral deposits open to location

11 AAC 86.100. APPLICABILITY. The provisions of this chapter apply to the acquisition of mineral rights under AS 38.05.280. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020(b)(1)

11 AAC 86.105. DISCOVERY DEFINED. "Discovery" means a finding of valuable mineral as would justify an ordinarily prudent person in expending further time, labor, and money upon the property with a reasonable expectation of developing a paying mine. (Eff. 9/5/74, Reg. 51)

Authority: AS 38.05.020(b)(1)
AS 38.05.185(b)

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL
JUNEAU ALASKA 99811
907-465-3800

MEMORANDUM

April 8, 1982

SUBJECT: CSSB 843 (Resources)

TO: Senator Bettye Fahrenkamp
Chairman, Senate Resources Committee
Attn: Resa King

FROM: Thomas A. Sofo TAS
Legislative Counsel

It has come to my attention that the most recent version of CSSB 843 (Resources) contains the word "may" on page 33, line 2. A review of the backup material provided by your office indicates that both the word "may" and the word "must" were provided as the language to be contained in the bill at that point. Had I been aware of the inconsistency in the directions which you provided I would have asked for clarification at the time the bill was being prepared by this office. It is my understanding that the word which was actually intended is "must". Typically, this office would change the word "must" to "shall". If that is your preference please let me know at your earliest convenience so we can provide you with a corrected version of the bill.

TAS:ljb

do a correction

"Proposed"

MARCH 22, 1982

ATTN: CHARLIE PODDY

SUBJECT: POLICY STATEMENT OF C.O.A.L. WITH REGARD TO STATE OF ALASKA INVOLVEMENT IN INFRASTRUCTURE CREATION FOR RESOURCE DEVELOPMENT

C.O.A.L. SUPPORTS THE CONCEPT OF STATE OF ALASKA FINANCIAL INVOLVEMENT IN INFRASTRUCTURE CREATION FOR RESOURCE DEVELOPMENT.

C.O.A.L. BELIEVES THERE ARE SEVERAL ROLES THE STATE OF ALASKA COULD APPROPRIATELY PLAY IN A FOSTERING DEVELOPMENT OF ALASKA'S RESOURCES.

THE STATE COULD CONSIDER PROVIDING LONG TERM LOW INTEREST LOANS THPOUGH TAX FREE BONDS. SUCH AN ACTION COULD SUBSTANTIALLY ENHANCE THE OVERALL ECONOMICS OF A PROJECT AS WELL AS PROVIDE A DIRECT ECONOMIC BENEFIT TO THE STATE. C.O.A.L. SUPPORTS THIS APPROACH TO STATE FINANCIAL INVOLVEMENT IN CREATON OF INFRASTRUCTURE WHICH IS DIRECTLY RELATED TO THE DEVELOPMENT AND PRODUCTION OF A NATURAL RESOURCE.

THE STATE MAY ALSO CONSIDER DIRECT INVOLVEMENT IN THE CONSTRUCTION AND OPERATION OF DEVELOPMENT AND PRODUCTION RELATED INFRASTRUCTURE. C.O.A.L. SUPPORTS THIS APPROACH SUBJECT TO CERTAIN LIMITATIONS.

IF THE SCALE OF ONE OR MORE DEVELOPMENTS IS SUCH THAT THE PROJECTS AND THE PRODUCTS THEY PRODUCE CAN CARRY THE COSTS OF DEVELOPMENT AND PRODUCTION RELATED INFRASTRUCTURE, THEN C.O.A.L. BELIEVES THAT STATE INVOLVEMENT IN THE CONSTRUCTION AND OPERATION OF THE INFRASTRUCTURE IS INAPPROPRIATE. WE BELIEVE THIS IS THE CASE WITH THE PLACER AMEX AND DIAMOND CHUITNA PROJECTS IN THE BELUGA REGION.

IF, HOWEVER, MULTIPLE PROJECTS, WHICH COULD BE SERVED BY MORE OR LESS COMMON INFRASTRUCTURE, WHERE RESTRAINED FROM DEVELOPMENT BY INDIVIDUAL ECONOMICS OF SCALE, IT MAY BE VERY APPROPRIATE FOR THE STATE OF ALASKA TO CONSTRUCT AND OPERATE ALL OR PART OF THE DEVELOPMENT AND PRODUCTION RELATED INFRASTRUCTURE. UNDER SUCH CONDITIONS AND ASSUMING THE STATE WOULD RECEIVE OVER THE LONG TERM A RETURN AT LEAST ADEQUATE TO RECOVER THEIR INVESTMENT, C.O.A.L. WOULD SUPPORT STATE INVOLVEMENT.

THIS IS MY CUT A POLICY STATEMENT. WE SHOULD RUN IT BY THE OTHER MEMBERS BEFORE WE MAKE IT PUBLIC.

REGARDS,
B. STILES

USIBELMIN HELY

DIASHAM LEX

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

JAY S. HAMMOND, GOVERNOR

POUCH M
JUNEAU, ALASKA 99811
PHONE:

April 5, 1982

The Honorable Don Bennett
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Senator Bennett:

As you are aware, the fiscal note to SB 843, which establishes Alaska's Surface Coal Mining Program, requests approximately $163,000 from the State's general fund for fiscal year 1983. An additional $403,000 would be supplied from federal funds. Although I am keenly aware of the budget pressures facing the State, I am writing to explain why State funding is vital for our Surface Mining Program to be a success.

SB 843 is the foundation for the Surface Mining Program which the Department intends to submit to the Department of the Interior later this year. The bill is supported by the coal industry and, with minor reservations, by public interest groups. Upon approval by the Interior Department, the Alaska Department of Natural Resources will replace the federal Office of Surface Mining as the regulatory authority for coal mining operations in the State. As part of the Secretary of the Interior's decision on whether or not to approve a State program, he must find that the State agency has "sufficient legal, technical, and administrative personnel and sufficient funding to implement, administer and enforce the provisions of the program..." 30 C.F.R. sec. 732.11(d).

The funding contained in the fiscal note for SB 843 will enable that finding to be made. Once the State has an approved program, we are entitled to 50% reimbursement from the federal government for expenditures in regulating surface mining on non-federal lands in the State, and 100% funding for regulation of such operations on federal lands.

First priority is to determine best coal sites, panel told

News-Miner Bureau

JUNEAU—The state of Alaska should spend a year figuring out which of its extensive coal reserves should be developed before it asks voters to approve bonds to build roads and docks for coal exports.

That was the message coal industry representatives delivered to a House panel last week. The industry officials represent companies who are contemplating mining portions of the estimated 141 billion tons of coal in Alaska.

But before spending millions of dollars on coal export facilities, Mobil's West Boettger told the House Transportation Committee, the state should take a year or 18 months and spend $200,000 to $500,000 determining which are the best coal sites to develop.

Opening up the wrong sites or doing so at the wrong time could mean Alaska's coal will not be sold on the world market, he said.

The committee is considering a bill (HB 768) that calls for a $200 million bond sale to develop Alaska's coal industry and pay for roads, ports and shipping facilities. The measure, sponsored by Rep. Ray Metcalfe, R-Anchorage, requires voter approval of the bonds.

While coal industry officials called the bill a significant indicator of the state's interest in coal development, they said it's probably premature.

"The best thing government can do is stand by and help private enterprize," said Dan Renshaw of the Usibelli Coal Co., Alaska's only coal company in production.

The key is determining when that help is needed, he said, because the world coal market is subject to changes.

Much of the world's coal is currently being consumed by Pacific Rim countries such as Japan, Korea and Taiwan, the panel was told. South Africa, Australia and the Lower 48 are supplying much of that coal, but it's of a considerably higher grade than Alaska coal.

For example, Far East countries are geared up to process coal rated at 12,000 to 14,000 British thermal units (BTUs). Much of Alaska's lower quality coal is rated at 8,000 BTUs.

However, Alaska's proximity to those markets makes it competitive with the higher quality coal, that is, if the facilities are in place to export it, Renshaw said.

SB 843 also establishes an Abandoned Mine Lands (AML) Program and a Small Operator Assistance Program (SOAP), both of which are funded entirely by the federal government. The money for these programs comes from a severence tax that has been paid by coal operators to the federal government since 1977. In part, then, we will be receiving back money which has been paid by the Usibelli mine since 1977, and will be paid by other operators as new coal mines are developed in the State. I should also note that AML funds are only available to the State if the Secretary of the Interior approves our Surface Mining Regulatory Program. These funds are available for reclaiming abandoned mine lands which were left in an inadequate reclamation status prior to passage of the 1977 federal law. At present, 18 such sites have been identified, and we anticipate many more such sites will be discovered upon more thorough investigation.

The approximately $290,000 of State and federal funding requested in FY83 to run the Surface Mining Regulatory Program contrasts with the following amounts estimated by other western states for the same period: Colorado, $1,520,000; Montana, $1,531,000; New Mexico, $908,000; Wyoming, $2,357,000. Our contemplated staff of four people contrasts with 29, 16, 16, and 49, respectively, for those states. This staffing level should be adequate to handle regulatory activities until there are four or more operations in the State, at which point we predict the need for one additional staff person (in Fiscal Year 1985). The four positions requested would also constitute the staff for the AML program and SOAP.

The positions projected for the program are a geologist, environmental engineer, land management officer, and clerk-typist, which we deem to be the minimum necessary to run the various programs. Present mining personnel in the Department are already overtaxed, due, in part, to the record number of mining claims which were filed this year and our initiation of a Coal Leasing Program. We anticipate that a fair amount of the technical analysis required by SB 843 programs will be handled through contracts to private consultants, since a program of our size does not justify employment of the broad spectrum of disciplines required by the federal law. The geologist will be the manager of the Surface Mining Program. His primary duties will include supervision of contracts for review of permit applications, abandoned mine lands work, small operator assistance, and review of petitions to designate lands unsuitable for mining; making initial departmental

decisions or recommendations on permit applications, bond release, enforcement actions, petitions to designate lands unsuitable, etc.; and preparing and negotiating grant requests and agreements with the Department of the Interior. The environmental engineer will be the primary inspector under the program, as well as assisting and complementing the geologist in the above tasks. The duties of the land management officer will focus on compliance with the myriad public participation requirements, record-keeping, and general review and response regarding different new responsibilities under this program (i.e., reviewing exploration permits and notice of intent). The clerk-typist will provide secretarial support.

In summary, the funds requested constitute what we believe is the minimum funding level necessary for the Department to fulfill its new duties under SB 843, as well as to obtain approval of our program by the federal government. In addition, approval of SB 843 and this funding should result in a better than 2:1 federal match of funds for these programs.

Sincerely,

John W. Katz
Commissioner

cc: The Honorable Al Adams
The Honorable Robert H. Bettisworth
The Honorable Ed Dankworth
The Honorable Bettye Fahrenkamp
Keith Specking
Ron Lehr
Phil Holdsworth, Coal Association

MEMORANDUM State of Alaska

TO: The Honorable John Sackett
Alaska State Senate

DATE: April 13, 1982

FILE NO:

TELEPHONE NO: 465-2400

FROM: John W. Katz
Commissioner
Depart. of Natural Resources

SUBJECT: Fiscal Note, CSSB 843

Attached is the detailed breakout of expenditures and funding categories for the fiscal note to CSSB 843 which you requested this morning. I have also attached a letter to Senator Bennett of April 5, which details the rationale for the fiscal note. Please do not hesitate to call me if you require any additional material.

cc: Senator Bennett
Senator Dankworth
Senator Eliason
Senator Ferguson
Senator Stimson
Senator Sturgulewski
Senator Fahrenkamp

with attachment

DETAILED BREAKOUT OF COSTS CONTAINED IN FISCAL NOTE TO CSSB 843

The expenditure and funding categories for Fiscal Year 1983 are composed of the following:

100 Personal Services		$ 157,100.00
Each position includes a standard formula for benefits and inflation.		
Geologist IV	$	51,579.00
Environmental Engineer III		46,911.00
Land Management Officer II		34,091.00
Clerk-Typist III		24,519.00
200 Travel	$	19,800.00
Field inspections of each operation or coal development area.	$	6,600.00
Meetings with Department of Interior (DOI) officials in Washington, Denver, and Casper, Wyoming, regarding program development, approval, implementation; and negotiation of a cooperative agreement for regulation on federal lands.		7,200.00
In-state meetings and hearings of the Department and its advisory committee on regulation drafting, regulation and program development and implementation, and the Office of Surface Mining (OSM) approval process.		6,000.00
300 Contractual	$	375,000.00
Abandoned mine land program development. This figure represents the low end of the range of costs incurred by other western states, and includes such items as identification, inventory, and prioritization of potential sites, program development, and submission to the DOI. This amount is 100% federally funded.	$	200,000.00
Review of permit applications. This figure is based on OSM contractor costs for a completeness review, technical and environmental assessment, with additional costs of increased site travel and analyzing unique Alaska problems under a new regulatory program, plus an inflation factor.		60,000.00

Small operator assistance. Based on OSM costs, with above-mentioned factors added. This amount is 100% federally funded. 40,000.00

Program development. Continued development of program submission, including regulations, inter-agency agreements, data base and inventory system, training of new staff, development of forms and manuals, cooperative agreement sub-mission, etc. 55,000.00

Legal review of extensive regulations, opinion and other elements necessary for program submission to OSM. 20,000.00

400 Commodities $ 1,000.00

Based on standard Department factor per employee.

500 Equipment $ 13,000.00

Based on one-time cost per employee for new office equipment and new equipment necessary for inspections and analyzing field data.

Funding

The DOI funds 50% of the cost of the state regulatory program, and 100% of regulation on federal lands, the abandoned mine land program, and small operator assistance contracts. Based on these formulae, the funding under this fiscal note is derived as follows:

General Fund	$ 163,000.00
Federal funds	403,000.00

This fiscal note does not consider income to the state based on permit application fees and collection of civil penalties, since these are speculative at this time.

United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
WASHINGTON, D.C. 20240

January 26, 1982

Mr. Mark Wittow
Special Assistant to the Commissioner
Department of Natural Resources
State of Alaska
Pouch M
Juneau, Alaska 99811

Dear Mark:

Enclosed, as per your request, is a copy of our most recent status report regarding State programs. If I can be of any further assistance, please do not hesitate to contact me.

Very truly yours,

Richard Robinson

Richard Robinson

Enclosure

STATE PROGRAM SUBMISSIONS
STATUS OF OSM REVIEW

STATE	DECISION	DATE	DATE INJ. ISS. (if any)	DATE INJ. LIFT.	RESUB. DATE
* See notes below.					
AL	Disapp.	10/16/80	11/12/80	11/12/81	1/11/82- ~~1/12/82+~~ --
*AK	--	--	--	--	--
AR	Con. Ap.	11/21/80	--	--	--
CO	Con. Ap.	12/15/80	--	--	--
*GA	--	--	--	--	--
IL	Par. Ap.	10/31/80	12/11/80	12/11/81	12/22/81
IN	Par. Ap.	11/25/80	7/26/80	7/26/81	9/28/81
IA	Con. Ap.	1/21/81	--	--	--
KS	Con. Ap.	1/21/81	--	--	--
KY	Par. Ap.	10/22/80	10/31/80	10/31/81	12/30/81
LA	Approval	10/10/80	--	--	--
*MD	Con. Ap.	12/1/80	5/1/81	5/1/82+	--
*MA	--	--	--	--	--
*MI	--	--	--	--	--
MS	Approval	9/4/80	--	--	--
MO	Con. Ap.	11/21/80	--	--	--
MT	Con. Ap.	4/1/80	--	--	--
NM	Con. Ap.	12/31/80	--	--	--
ND	Con. Ap.	12/15/80	--	--	--
OH	Disapp.	10/1/80	11/25/80	11/25/81	~~1/25/82+~~ 1/22/82
*OK	Con. Ap.	1/19/81	1/9/81	7/20/81	--
*OR	--	--	--	--	--
PA	Disapp.	10/22/80	11/26/80	11/26/81	~~1/26/82+~~ 1/25/82
*RI	--	--	--	--	--
TN	Par. Ap.	10/10/80	12/5/80	12/5/81	2/5/82+
TX	Con. Ap.	2/27/80		--	--
UT	Con. Ap.	1/21/81	--	--	--
VA	Con. Ap.	12/15/81	12/3/80	12/3/81	8/13/81
*WA	--	--	--	--	--
*WV	Con. Ap.	1/21/81	2/13/81	2/13/82+	--
WY	Con. Ap.	11/26/80	--	--	--

Con. Ap. = Conditional Approval
Par. Ap. = Partial Approval / Partial Disapproval
Disapp. = Disapproval

+ (Target Date)

NOTES:

Alaska: Expected to submit State program.
Georgia: Federal program proposed 9/15/80. Target date for reproposing Georgia Federal program is January 31, 1981.
Maryland: Injunction restrains State from enforcing portions of the approved program.
Massachusetts: Federal coal exploration program to be promulgated.
Michigan: Federal coal exploration program to be promulgated.
Oklahoma: Injunction restrained State from implementing the approved program. All regulations rescinded 2/12/81. Emergency regulations recently promulgated.
Oregon: Federal coal exploration program to be promulgated.
Rhode Island: Federal coal exploration program to be promulgated.
Washington: Expected to submit State program.
West Virginia: Injunction restrains State from enforcing portions of the approved program.

Howard Roitman
Attorney
Surface Mining Consultant

April 1, 1982
(This is not, however, an April Fool's joke.)

MEMORANDUM

TO: Mark Wittow
Laurel Murphy

Per a telephone conversation with Walt Morris (Assistant Solicitor for Enforcement, Division of Surface Mining, Washington, D.C.) this date, the Settlement Agreement regarding implementation of a surface mining program in Alaska provides as follows:
If the state submits a program by September 1, the Department will act expeditiously to reach a decision on it. In the event that the state fails to submit a program by that date, the Department agrees to publish a proposed program in the Federal Register by November 1, 1982 and a final program by March 1, 1983. If the state legislature adjourns without having passed the requisite bill, the Department schedule for proposing and implementing a federal program is moved up to require publishing a proposed program within 120 days of the legislature s adjournment.

This is, of course, probably an impossibly short timeframe for Interior to meet. This timeframe would ensure at least two undesireable results: First, a federal program would certainly be implemented before the 1983 session of the legislature could make another try at a bill, thereby triggering a permit application requirement for Usibelli, and conceivably an EIS. The worst-case scenario which we've joked about, that Usibelli could be shut down, becomes a little closer to reality given the present backlog of federal mine plan approvals and the uncertainty as to whether Usibelli is permitted according to the federal interim program. Second, this timeframe ensures that the federal program would not reflect unique Alaskan conditions since the time would allow only publication of a "generic" type federal program, probably similar to that already published for Georgia.

Howard

cc: J. Antenucci

2225 Birch • Denver, Colorado 80207 • (303) 322-1955
2607 Palmer Court • Anchorage, Alaska 99504 • (907) 274-2653 ext. 159 337-0052

Oswald discusses coal mining regs

By MAURICE P. OSWALD
DOWL Engineers

The federal Surface Mining Control and Relamation Act of 1977 directs the Secretary of Interior to establish a permament regulatory procedure for surface coal mining and reclamation operations.

The federal act also requires all states to enact their own program according to federal guidelines by Feb. 1981, or the federal program automatically would be instituted in the state.

The regulatory program, administered through the Office of Surface Mining Reclamation and Enforcement is intended to control adverse environmental impacts stemming from activity in and around surface coal mines.

Although the state has not yet enacted its own surface mining regulatory program as required by the federal act, it is likely the future state program will resemble the requirements of the federal regulations.

The new regulations contain two types of guidelines: those dealing with performance standards or goals, and those concerning the design criteria for all construction in the mine plan area.

To satisfy the many stringent requirements in permitting future coal mining operations, various specific environmental requirements must be met. Typical examples include:

- hydrologic engineers are to work with the mine plan design team to establish ground water and surface water quality and control methods for both pre mining and post mining stages.
- hydrologic engineers also will be needed to design water control structures such as diversion channels, impoundments and underdrains for reclaimed areas.
- environmental specialists such as biologists, botanists, ecologists, soils scientists, and agronomists will be needed to assist in the design of mine plans to minimize adverse impacts on fish, wildlife, plants, soils and other environmental values of the mine plan area and to establish a reclamation plan.

Various legal challenges to the act have been posted since its enactment. However, in a unanimous decision the U.S. Supreme Court upheld the constitutionality of the act, reversing previous U.S. District Court rulings in Indiana and Virginia that the law was unconstitional.

Despite other ongoing challenges, indications are the act has the highest court's support in both spirit and substance. The federal act did make a special provision relative to Alaska, although the significance is not yet clear.

It was believed at the time of passage that surface coal mining conditions in Alaska might be sufficiently different from those in other coal producing states to warrant modified regulatory treatment under the act.

Sect. 708 of the act therefore directed the Secretary of the Interior to contract with the National Academy of Sciencies - National Academy of Engineering for an in depth study of surface coal mining conditions in Alaska, in order to determine which, if any, provisions of the act should be modified with respect to surface coal mining operations here.

The study considered certain environmental characteristics of Alaska, in particular the widespread areas of permafrost and arctic tundra, which are not encountered in coal mining areas in the Lower 48 states and which were not contemplated as unique features of mining and reclamation when the act was written.

Surface mining of coal in perennially frozen tundra areas in North America has been limited, and the optimum technology for dealing with mining and reclamation problems in such areas is not known.

In addition, some environmental and socioeconomic conditions in Alaska could interact with coal mining in ways not addressed by the act, and it was believed that such matters deserved comment in considering how the act might be modified.

For example, the effects of mining on wildlife as related to Native subsistence economies and social structures are not addressed in the act. Further complications can arise due to diverse types of land ownership (federal, state and private including regional and village Native corporation selections, Native allotments and non-Native holdings).

Jurisdictional entanglements (except in certain areas) will need to be resolved if coal mining is to be carried out on a broad scale in Alaska.

The results of the study by the National Academy of Sciences - National Academy of Engineering will influence the formulation of the state surface mining regulatory program for years to come.

The lead time eventually required to comply with regulations in preparing a coal mine for production may be as much as 4-5 years.

However, actual production of Alaska coal on a large scale remains dependent primarily on external market conditions, rather than regulatory constraints.

Properly implemented, the regulatory programs are intended to achieve an acceptable balance between maximizing the recovery of Alaska's energy resources, and achieving orderly industrial growth along with the preservation and enhancement of environmental values.

"A bill already has been drafted for consideration by the first session of the 12th Alaska state legislature. Regardless of the final outcome of the bill and resulting regulatory program, vastly new requirements will confront the future developers of Alaska's enormous untapped coal resources.

The planning and design efforts as well as the environmental constraints for a surface coal mine are considerable, and will have a profound effect on both the costs and timing necessary to prepare for actual coal mine production."

STATE OF ALASKA
DEPARTMENT OF COMMERCE & ECONOMIC DEVELOPMENT
DIVISION OF ECONOMIC ENTERPRISE
OFFICE OF MINERALS DEVELOPMENT

JAY S. HAMMOND, GOVERNOR

675 7TH AVENUE
STATION G
FAIRBANKS, ALASKA 99701
PHONE: (907) 452-7464

April 7. 1982

APR 12 19

Senator Betty M. Fahrenkamp
Alaska State Legislature
Pouch V (MS 3100)
Juneau, Alaska 99811

Dear Betty:

There is some interesting material in this recent article from the magazine LANDMARK which relates to the Surface Mining Act.

Perhaps some of the pitfalls could be addressed by regulation to enable Alaska to end up with a workable, realistic and non-punitive regulatory framework.

Sincerely,

John Sims
Director
Office of Mineral Development

JS:nw

Senator Fahrenkamp

Surface Mining Regulation . . .

. . . a case study in Temporary Permanence

Since the enactment of the Surface Mining Control and Reclamation Act of 1977, coal operators have been forced to comply with endless regulations that govern the industry. With the entrance of the Reagan Administration, the Federal Office of Surface Mining has worked hard to relieve operators of some of the regulatory overburden through revisions in the rules.

Albeit unlikely, a set of "permanent" regulations was set forth for the surface mining industry back in March 1979. The constant revision of these rules has created for us a contradiction in terms: temporary permanence.

Some problems still exist in areas of the regulations. Following are several regulatory issues facing the coal industry today. The outcome of the revisions remains unclear at best. Industry members have taken a stand; OSM continues to seek that balance between industry and environment without making legislative changes in the Act itself—at least for the foreseeable future.

Land previously mined and left unreclaimed, or abandoned mine lands (AML), causes environmental problems and tarnishes the countryside. Because most of these areas were abandoned prior to the passage of the Surface Mining Control and Reclamation Act of 1977, (SMCRA), it is difficult to place the ensuing SMCRA responsibility on any specific group.

For this reason, congress created under the act the Abandoned Mine Reclamation Fund, designed to finance the reclamation of abandoned mine lands. Although a good idea on paper, the true effectiveness of the Fund has yet to be tested.

The Fund is comprised of money collected from the states by the Department of Interior (DOI) and is deposited into the Fund from a) user charges imposed on land reclaimed pursuant to SMCRA after the deduction of maintenance expenditures, b) donations, and c) reclamation fees collected from the individual states.

Title IV of SMCRA calls for a fee of $.35 per ton of surface mined coal, $.15 per ton of underground coal, or 10 percent of the entire coal value, whichever is less. DOI collects the fees every calendar quarter, along with a statement prepared by the individual operator describing the amount and type of coal removed and the method of its removal.

The penalties under SMCRA are stiff. A fine of as much as $10,000, jail, or both, may await operators who fail to remit their fees. Ultimately, delinquent fees will be collected by DOI, with interest, through the U.S. court system.

Allocation procedures call for a return of 50 percent of reclamation fees to the state or Indian reservation it was collected from for use in DOI-approved reclamation projects. Project validity is determined in a joint agreement by the state governor and DOI secretary that the Fund's objectives have been met, a need for public facilities on abandoned mine lands exists and that other funds are inadequate. The balance of the Fund is distributed under the discretion of the DOI secretary.

Which brings us to the problem. According to Title IV provisions, monies allocated to the states from the AML Fund that haven't been spent within three years suddenly become "available for expenditure in any area as determined by the Secretary." Because many states do not yet have approved state mining and reclamation programs, they are not yet eligible for their AML allocations. As the three-year deadline for monies originally allo-

cated in 1978 and 1979 draws, near, there is considerable worry that these states could lose a significant amount of money through no fault of their own. The reason? An insufficient time period in which to receive and utilize AML funds between the date of approval for a permanent state mining program and the deadline date, three years after allocation. The Interstate Mining Compact Commission (IMCC) had submitted a petition to the Federal Office of Surface Mining (OSM), simply requesting an extension of this initial three-year deadline. Thus far, no final judgement has been made on the petition.

Another, and more recent, controversy surrounding the Title IV program, spurred by an OSM proposal to ensure that deductions for excess moisture are not made, is the per-ton reclamation fee paid by operators. Those operators who do not wash their coal before selling it claim that they shoulder a greater burden than those who do. Unwashed or "run-of-mine", coal contains impurities, such as moisture that often make it heavier. Coal prices are scaled down according to its impurity, yet it is taxed equally.

One of the most significant problems with the AML Fund is that the majority of it presently sits in the United States Treasury, unused. Reclamation fees are collected from the states by the Interior Department, and deposited in the Treasury. Funds are then allocated back to DOI, where officials distribute it among only those states with approved programs.

"It's cumbersome," said Vince Marino, president of the Pennsylvania Coal Mining Association, of the fund transaction process. "We have projects all worked up and ready. They're just waiting for the money. I have serious reservations about whether or not that money is even gaining interest." Sources confirmed Marino's suspicions.

Marino offered a solution that has become an issue of late.

"Why not let the states raise the AML revenues?", he said. "The states would still give 50 percent of the fees to the Federal government, but keep the remainder within their own borders. That way, another program would come in line with President Reagan's effort to return power to the states."

If this program were adopted, say Federal officials, states in little need of extensive reclamation work would begin to stockpile funds that may be needed elsewhere. For this reason, they say, a Federal authority must be charged with allocating the money where it is most needed. The controversy goes on.

One of the most significant problems with the AML Fund is that the majority of it presently sits in the United States Treasury, unused.

As the three-year deadline draws near, there is considerable worry that these states could lose a significant amount of money through no fault of their own.

One of the main drives behind SMCRA was to provide each state with the opportunity to achieve "primacy"; that is, to assume full jurisdiction of its own mining and reclamation program. The Act required each state desiring its own program to submit to the Federal Office of Surface Mining (OSM) "a state program which demonstrates that such state has the capability of carrying out the provisions of the Act."

A program regulating all surface coal mining operations has to be comprehensive, establishing sanctions for violations of state laws and regulation; a state regulatory authority both well-manned and funded; a process for determining which lands are unsuitable for mining and a method of processing applications and permits designed to cut down on costly and time-consuming duplication.

Upon submission of a state's proposed program, the Interior Secretary is required to solicit the views of other chief administrators from the Agriculture Department and the Environmental Protection Agency (EPA). Before a state program can be approved, at least one hearing must be held and provisions in the Clean Air Act and Water Pollution Control Act must be complied with.

If a program is disapproved by the Interior Secretary, he is required to outline the reasons why. If a state fails to submit a proposed plan, it is still eligible for financial assistance under SMCRA, and a Federal surface mining program will be developed and implemented.

The "state window" concept developed as a vehicle for applying flexible regulations varying from the Act to many different types of areas; operators argued that a "window" of flexibility was necessary, allowing them to achieve the same results, but through different methods.

The DOI secretary also has the option of issuing cessation of operations orders if he determines a violation to be environmentally harmful.

Under the Carter Administration, the window remained closed as Federal officials permitted little, if any, variance from provisions in the Federal program. The state window issue grew to be a long, drawn out struggle between Federal regulators and the industry, relieved with the entrance of the Reagan Administration. Officials under the new Administration responded to industry appeals by proposing to replace the regulatory phrase "as consistent with" (maintaining strict adherance to Federal program provisions) with "as effective as," thereby granting states the needed flexibility. Coal operators have effectively argued that allowing more state flexibility will enhance both cost-efficiency and effectiveness in meeting the Act's Congressional intent.

Industry members have also been concerned with OSM's procedure in the event that a state fails to submit or resubmit a program. The Federal law states that no permits may be issued for such a state until a Federal program is implemented, yet many operators could feasibly mine out their permitted areas in the time necessary to implement a Federal program. Recently, OSM has proposed to allow states the flexibility to submit or resubmit at any time, but a continued limit on state authority to grant permits still threatens the industry. Operators are actively seeking a mechanism for extending or renewing interim program permits in states where this situation exists

OSM officials have also proposed to remove certain requirements in the citizen participation process. Presently, state programs are required to contain provisions for citizen suits in state courts, and citizens' rights to accompany officials during mine inspections. Mine operators point out that communication lines are delicate between industry members and their surrounding communities, and removal of those lines will increase Federal involvement in subsequent suits. As a result, Federal officials may be forced to inspect unfamiliar minesites. The Mining and Reclamation Council (MARC) had argued for the retention of the citizen participation roles primarily to avert additional Federal involvement and citizen hostility that could lead to increased complaints against operators.

With any Federal law comes enforcement. Inspection and enforcement procedures under the Federal surface mining law has been the subject of strong debate between industry members and officials who are currently engaged in the revision process.

The original provisions in SMCRA require that operators maintain extensive records on their operations for submission to the regulatory authority, and that monitoring equipment and methods are established. Although Federal officials are required to conduct partial minesite inspections once a month and complete inspections each calendar quarter, they are done with no prior notice, assuring safe and proper practice.

The Act encourages a degree of public monitoring, granting residents of the mine area the authority to submit complaints of possible mine violations and accompany officials on minesite inspections.

Civil penalties are assessed by the Interior Secretary following a hearing for mine violations and, under SMCRA, penalties shall not exceed $5,000 for each violation. However, each day that a violation exists is considered an additional violation.

The DOI secretary also has the option of issuing cessation of operation orders if he determines a violation to be environmentally harmful. If the violation is not considered dangerous, the operator may be given a period of 90 days to correct, or abate, the problem. Moreover, if the regulatory authority finds a pattern of violations developing as a result of failure to comply with SMCRA provisions, a permit can be revoked or suspended.

One of the several issues of concern in the coal industry has been mentioned before, and involves the public participation process. OSM has proposed deleting provisions for a) state courts being used as vehicles for citizens' lawsuits, and b) citizens joining state and Federal officials on mine inspections. In an effort to maintain fragile community relations, MARC has sought retention of these rules.

A "compliance conference" is a mechanism proposed by OSM designed to promote a closer working relationship between operators and the regulatory authority; however, operators are concerned with the agency's proposal to man the compliance conference program with personnel authorized to issue notices of violation (NOV). In other words, operators may be hesitant to discuss operations that they are unsure whether or not would constitute a violation with anyone who can levy immediate violations. As this would obviously be a hindrance to the program, operators prefer personnel with equal expertise but no authority to issue NOV.

Another regulatory issue of chief concern to the coal industry is OSM's interpretation of a pattern of violations. Operators argue that many violations in one small area of the requirements, such as erosion and/or sediment control, should constitute a pattern of violations rather than violations of unrelated requirements.

Because of its potential effect on the nation's agriculture and food supply, mining and reclamation practices on areas designated as prime farmland has become one of the most controversial issues of the Federal surface mining law.

As a provision for determining whether a permit is approved or denied, the Act requires that the secretaries of Agriculture and Interior "grant a permit to mine on prime farmland if the regulatory authority finds...that the operator has the technological capability to restore such mined area...to equivalent or higher levels of yield as non-mined prime farmland in the surrounding area."

However, SMCRA specifies that permits issued to surface mining operators before the Act's enactment were to be exempt from its prime farmland provisions until Aug. 3, 1982 (5 years following enactment), during which time they would be "grandfathered" in.

Several legal problems have sprung from this grandfather clause, particularly the process by which lands are exempted. OSM's final regulations were published in the Sept. 29, 1981 *Federal Register*. Under the rules, lands considered to be exempt from SMCRA provisions are those that a) are mined and reclaimed pursuant to any permit issued before Aug. 3, 1977 (the Act's enactment), b) are mined and reclaimed pursuant to any renewal or revison of a permit issued before Aug. 3, 1977, and c) are included in any existing operations "for which a permit was issued for all or any part thereof" before Aug.

3, 1977.

Put simply, a company must have owned, leased or contracted land prior to the Act's enactment in 1977 in order to qualify for the grandfather clause.

A final rule was made eliminating the deadline date for the grandfather clause. However, in response to the controversy surrounding this decision, OSM will be reproposing alternative solutions in the near future.

The process of performance bonding has been likened to a vicious circle that has created, at times, a no-win situation for either side.

A performance bond, in plain terms, is similar to an insurance policy paid by one party (the coal operator) to another party (a surety company) for the benefit of a third party (the state regulatory authority). Before land is permitted, SMCRA provisions require that the operator involved apply for a performance bond with a surety company or offer some alternative mechanism achieving the same purpose. The operator then pays premiums to the company during operations. If that operator were to default on the subsequent reclamation work, the surety company would be held liable.

A vicious circle? It would certainly seem so. Many surety companies were devastated by granting performance bonds to smaller operators who frequently defaulted from their reclamation responsibilities, particularly after passage of more stringent and costly performance standards. In turn, surety companies now consider legitimate small- and medium-sized operators a high risk, and often make it difficult for them to obtain the necessary bonds.

The principle bonding requirements under SMCRA:

1) the bond must cover all surface mining and reclamation operations during the life of the mine, and for a period that coincides with the revegetation requirements of the Act (which could be for a period of up to 10 years after augmented seeding, fertilizing, irrigation or other work to assure successful revegetation)
2) the amount of the bond is determined by the regulatory authority based on estimated costs of reclamation, and additional estimated costs in the event of forfeiture to complete reclamation, after abandonment.
3) the minimum bond for a permit area is $10,000.
4) the bond amount can be adjusted from time to time by the regulatory authority due to inflation or new technology costs.
5) the liability period extends for 5-10 years (depending upon rainfall levels across the country).
6) there are provisions for public participation in the bond release process.

The most significant problems that surety companies and, as a result, coal operators have to deal with are mid-term bond increases, the uncertainties of public involvement in the release process and long-term liability.

An increasing risk for sureties, bond increase during its term is nearly impossible to predict at the time it is originally requested, and the small, less solvent operator is particularly vulnerable to any increase. The surety may not consider the additional bond justifiable and the operator must then seek other means to comply, means that smaller companies may not have access to.

Public involvement in bond release is an uncertainty that sureties equate with higher risk. Unfamiliarity with OSM's public involvement process and a general belief that the result will be an increase of the period of bond liability appear to be the basis for assuming increased risk.

Finally, long-term liability has become a severe problem for sureties because, as time goes on and regulations constantly change, forecasting the financial future of an operator becomes increasingly difficult.

The coal industry has been pushing for changes in the regulations involved with performance bonding, calling for phased bonding and incremental bond release. Phased bonding will allow sureties to bond one or more of the three phases, as long as the operator has an alternative system to replace the surety bond upon expiration. The three phases of reclamation are I) topsoil replacement and grading, II) revegetation, and III) firm establishment of complete reclamation over a period of from 5-10 years. Surety companies would be relieved of bonding phase III, thereby eliminating complaints of long-term liability. By allowing an operator-funded escrow account or a state fund to cover the third phase, the sureties can more specifically identify their involvement and risks.

MARC petitioned OSM to allow for bond release on specific segments of the permit area upon completion of the various reclamation phases. Currently, discrete increment amounts cannot be released until the entire area has been reclaimed. This regulation was developed on the notion that cost estimates on each increment may not reflect the actual dollars needed to reclaim in the event of forfeiture. Thus money could be floated over the increments and phases to cover potential problems that could crop up in previously released areas within the permit. The result of this request will be determined when the final rules are published in the near future.

The Federal surface mining law requires that any state seeking primacy for its own state program must develop a process to determine what, if any, lands are unsuitable for coal mining and reclamation. Again, a noble attempt to protect lands that would be adversely affected by mining, but criteria used for choosing the lands has since been an issue not without controversy.

According to the act, lands may be declared unsuitable for surface mining by the state regulatory authority if the ensuing operations a) are incompatible with current land use programs, b) adversely affect fragile or historic lands, c) adversely affect renewable resource lands such as water and food supplies, and d) adversely affect natural hazard lands, endangering life and property.

Provisions call for public participation in designating land unsuitable for mining. Any individual with an interest in the land involved may submit a petition to be reviewed by the regulatory authority. The petition must contain evidence supporting the petitioners' case, and the decision will be made based on that evidence.

A company must have owned, leased or contracted land prior to the Act's enactment in 1977 in order to qualify for the grandfather clause.

Three main problems confront the coal industry in the unsuitability criteria: the petitioning process itself, the concept of valid existing rights, and a small criterion known simply as the 300-foot barrier.

The 300-foot barrier rule prohibits a coal operator from establishing mining operations closer than 300 feet to any occupied residences or facilities, unless the occupants give their consent.

Many small operators remain in business by mining small tracts of land leased from local landowners. The 300-foot language in SMCRA has resulted in significant acreage losses in the smaller operators' proposed permit areas, and subsequent losses in coal reserves.

Industry members argue that the 300-foot barrier rule is excessive. A smaller distance can be considered that would still effectively protect residences and public facilities.

Valid existing rights (VER), applied only to those areas which were permitted or were in the process of being permitted prior to that date of the Act's enactment, has become an intensely legal matter. VER are exempt from the Act's unsuitability clause. However, the industry argues that its financial commitment to lands is not taken into consideration. companies who have purchased acreage in past decades have it effectively "stolen" from them as a result of the 300-foot barrier rule, 100 feet in the case of public roads.

Operators argue that many violations in one small area of the requirments should constitute a pattern of violations, not violations of unrelated requirements.

MARC has contended that the VER definition should be expanded to include not only those lands permitted before the Act, but those where significant financial commitments have been made, regardless of when. Further, the land must have been leased for the sole purpose of mining coal. If VER were interpreted in this manner and all new deeds, leases, etc. were subject to new requirements, the companies' past economic invesiments would be protected and, at the same time, protection would be provided to those areas designated as unsuitable to mine.

Finally, the petitioning process for designating lands as unsuitable for surface coal mining has been a problem for some coal operators, many of whom have disputed the criteria by which a petition is submitted.

Case in point: the West Virginia Rivers Coalition filed just such a petition in September 1981 with the West Virginia Department of Natural Resources requesting that an area involving some 300,000 acres in Upshur, Barbour and Randolph Counties be declared unsuitable for surface coal mining. The Rivers Coalition contended that mining the area would damage natural streams and reduce the value of water supplies. The petition was not signed.

According to the West Virginia Code, no mining permits can be issued for an area involved in an unsuitability petition.

"As you can see," wrote Jim Christie of Grafton Coal Company, West Virginia, in a letter to a Congressional staffer, "an individual by the mere filing of a petition can immediately cease the issuance of permits for a particular area and possibly have mining in such an area abolished. All this can be done without putting up a bond, without signing or verifying the petition, and without giving notice to all those companies and individuals who own property, coal or mining rights within the subject area." The petition was recently denied by the West Virginia Department of Natural Resources.

MARC petitioned OSM to allow for bond release on specific segments of the permit area upon completion of the various reclamation phases.

Christie set forth suggested revisions in the criteria "to assure that only responsible parties exercise such rights, and to minimize effect upon existing companies in the area." Those suggested changes include a bonding requirement, written notice to all owners and operators in the subject area, continued processing of mining permits, exemption of areas being mined or permitted as of the date of the petition's filing and compensation consideration to property owners.

MARC Technical Services Manager Lauri Zell contributed significantly to this article.

SB 313

JAY S. HAMMOND
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

March 9, 1982

The Honorable Jalmar Kerttula
President of the Senate
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Mr. President:

Under the authority of art. II, sec. 18, of the Alaska Constitution, I am transmitting a bill relating to surface coal mining and the surface effects of underground coal mining. The bill is an edited and corrected version of HB 762, introduced at my request February 12, 1982.

This bill is a response to the Surface Mining Control and Reclamation Act of 1977, P.L. 95-87 (SMCRA), which provides for the establishment of a nationwide program for the regulation of surface coal mining and reclamation. That regulation is to be carried out by the Secretary of the United States Department of the Interior unless he approves a state program which would vest exclusive authority for that regulation in the state. This bill is designed to provide the authority necessary for the state to submit such a program and assume regulation.

The program proposed in this bill is both complicated and comprehensive. Most of its contents are mandated by federal law and regulations, although some improvements on the federal law have been made, and the bill is considerably shorter than its federal counterpart.

The most compelling reason for the state to undertake this program is to assure that surface coal mining and reclamation is conducted in accordance with Alaskan needs, conditions, and concerns. With the present and potential vast future development of Alaska coal, it is essential that the state tailor a program which meets the needs of both local coal development and deals effectively with the conservation concerns of our citizens and the unique Alaskan environment. This bill is the tool to do this.

If the state does not assert its jurisdiction in this area, the Office of Surface Mining in the Department of the Interior is required to become the regulatory authority to administer a program for the regulation of Alaskan surface coal mining and reclamation operations.

A section-by-section analysis of the bill is attached.

Sincerely,

Jay S. Hammond
Governor

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No.
Title Alaska Surface Coal Mining Control and Reclamation Act
Requested by Date

II. FISCAL DETAIL
Agency Affected Department of Natural Resources
Program Category Affected Management of Mineral Resource
BRU, Program, Or Subprogram(s) Affected Mineral Development
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES		157.1	157.1	200.2	200.2	200.2
200 TRAVEL		19.8	20.9	42.1	49.5	54.5
300 CONTRACTUAL		375.0	490.3	393.3	428.7	467.3
400 COMMODITIES		1.0	1.1	1.5	1.6	1.8
500 EQUIPMENT		13.0	10.0	3.8	3.0	3.0
600 LAND & STRUCTURES						
700 GRANTS,CLAIMS,ETC.						
TOTAL		565.9	679.4	642.3	684.4	728.2

FUNDING (Thousands of Dollars)

GENERAL FUND		161.9	200.0	190.7	202.6	213.0
FEDERAL FUNDS		402.0	477.6	449.6	479.8	513.2
OTHER (Specify Source)						

POSITIONS

FULL TIME		4	4	5	5	5
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

See Attachment

IV. DATE 2/8/82 PREPARED BY Jeff Haynes
AGENCY Natural Resources
PHONE 465-2400

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)
33-001 (Rev. 12/81)

III. ANALYSIS

This note assumes that a regulatory program is approved by the Secretary of the Interior and becomes effective on 12-31-82.

A. Personal Services

The program will require 4 positions at its inception: Geologist IV, Env. Engineer III, Land Management Officer II and Clerk-Typist III. An additional Scientist/Engineer II position is projected for FY 85 and beyond due to additonal coal operations projected in the state at that time.

The Geologist will be the manager of the surface mining regulatory program. He will supervise contracts for review of permit applications, abandoned mine lands work, small operator assistance, etc.; make initial departmental decisions or recommendations on permit applications, bond release, enforcement actions, petitions to designate lands unsuitable, etc. The Env. Engineer will be the primary inspector under the program, as well as assisting and complementing the Geologist in the tasks enumerated above. When additional operations come on line (projected in FY 85), an additional engineer/scientist will be required to meet the inspection workload. The duties of the Land Management Officer will focus on compliance with public notice and public participation requirements, record keeping, and general review and response regarding different new responsibilities of the Department under this program (i.e., reviewing exploration permits and/or notice of intent). The Clerk-Typist will provide secretarial support.

B. Travel

The travel budget is composed largely of field inspections and field visits to coal development sites. Other travel funds would be spent on required meetings with operators and members of the public and other agency officials, and public hearings. There would also be investigation of potential abandoned mine reclamation and small operator assistance sites.

C. Contractual

The contractual category includes the abandoned mine land program development and projects (all federally-funded), small operator assistance laboratory work (all federally-funded), review of permit applications, laboratory work for inspections, legal counsel, and review of any petitions for designation of lands unsuitable for surface coal mining. Much of this work is speculative as it is based on projections about future development of the program.

D. Funding Sources

The federal government funds 50% of the basic cost of the state regulatory program. All small operator assistance contracts and abandoned mine land work are 100% federally funded. Funds in this category represent the return to the state of a portion of the 35¢ per ton reclamation fee levied against operators by the federal government. Substantially more funds should be available in this category after production begins on new coal operations. In addition, 100% federal funding is available to defray the costs of regulating any surface coal mining operation on federal lands. One of the projected future operations would qualify under this funding category.

Proposed ALASKA SURFACE COAL MINING CONTROL

and RECLAMATION ACT

Section-by-Section Analysis

Section 1 of the bill enacts a new AS 41.45 entitled "Alaska Surface Coal Mining Control and Reclamation Act", consisting of the following sections:

AS 41.45.010 states the basic finding that the state is best able to regulate surface coal mining and reclamation under the federal Surface Mining Control and Reclamation Act of 1977 (SMCRA), and lists the purposes of new AS 41.45, which include assuring responsible extraction of coal, reclamation of coal mining areas, protecting the rights of surface owners, minimizing degradation of land and water, and assuring appropriate public participation in the regulatory process.

AS 41.45.020 vests jurisdiction over surface coal mining and reclamation operations in the state in the commissioner of natural resources.

AS 41.45.030 enumerates general powers, including adoption of regulations, issuing permits, holding hearings, issuing orders, inspections, receiving funds, participating in the federal abandoned mine land program, coordination and cooperation with other agencies.

AS 41.45.040 specifies that individual provisions of regulations or permits may vary depending on local conditions so long as the provisions are consistent with the purposes of the chapter. This flexibility is necessary to accommodate the different environmental conditions encountered in the three major geographical areas of potential or actual coal development in Alaska.

AS 41.45.050 prohibits conflicts of interest in employees and contractors who administer the new chapter and prescribes a criminal penalty for violation of this prohibition. This provision is required by SMCRA, sec. 517(g) and 30 CFR 732.15(b)(11).

AS 41.45.060 requires coal mine operators to apply for a permit to conduct surface coal mining and reclamation operations.

AS 41.45.070 sets a basic permit term of five years, unless a longer initial period is necessary to obtain financing. A permittee is required to commence operations within 3 years after the permit is issued, subject to some exceptions.

AS 41.45.080 provides that permits carry a right of successive renewal unless an opponent of renewal demonstrates that the operation is not in compliance with regulatory requirements. Renewals involving new land areas require the same procedures and standards as apply to new permit applications.

AS 41.45.090 authorizes the commissioner to set a fee schedule for permit applications, not to exceed the costs of processing the applications.

AS 41.45.100 requires public filing of permit applications and other materials, except for designated confidential information including information relating to the competitive rights of the applicant.

AS 41.45.110 requires the commissioner to adopt regulations relating to the contents of permit applications, consistent with the requirements of the federal program, but taking into account the unique mining and environmental conditions in Alaska.

AS 41.45.120 establishes small operator assistance for certain laboratory work required as part of the permit application for

operations which will produce under 100,000 tons of coal annually. This is required by SMCRA, sec. 507(c) and 30 CFR 732.15(b)(13).

AS 41.45.130 provides for public notice of pending applications for surface coal mining and reclamation permits.

AS 41.45.140 allows government agencies and persons who may be adversely affected by the proposed operation to file written comments and objections to the application, and to request an informal conference with the department. The commissioner is required to issue a decision regarding the permit application within 60 days of the informal conference, or as provided in AS 42.45.180.

AS 41.45.150 provides for a formal hearing on a permit application at the request of the applicant or any person who may be adversely affected. The commissioner may grant temporary relief pending his final decision when circumstances warrant it.

AS 41.45.160 requires that, before a permit can be issued, the applicant must furnish a performance bond conditioned on faithful performance of the requirements of the chapter and the permit. The bond must be sufficient to assure completion of the applicant's reclamation plan by the department in the event of a forfeiture. In lieu of a bond, the commissioner may accept cash, a self-bond, or negotiable bonds or certificates of deposit, upon which the department must pay interest annually. The amount of the bond may be adjusted for good cause, including changes in affected land areas and costs of reclamation.

AS 41.45.170 provides for release of performance bonds at the request of a permittee after notice, inspection and evaluation of the reclamation work involved. A schedule for staged release of a bond is established, depending on work completed and the commissioner's evaluation. Government agencies and persons whose legal interests may be adversely affected may file objections to the release of bond and request a hearing, as may an applicant whose request for bond release has been denied.

AS 41.45.180 requires the commissioner to make a decision on a permit application within 120 days after receipt, which may be extended by an additional 60 days after receipt of additional

information required for a decision. This section sets out the basic criteria for approval of an application. A permit may not be issued if the applicant is in violation of environmental standards regarding surface coal mining operation in the United States or if the applicant has demonstrated a pattern of wilful violations of this chapter.

AS 41.45.190 provides for revision and transfer of permits.

AS 41.45.200 requires notice to the commissioner before commencement of coal exploration. Exploration would be governed by regulations based on the degree of disturbance and amount of coal to be removed. Coal exploration operations are required to conform to the general requirements of the surface mining program.

AS 41.45.210 requires the ommissioner to propose regulations consistent with the environmental performance standards of SMCRA, with adjustments for the special conditions of Alaska. SMCRA, sec. 503(a)(7) requires consistency with these standards, which apply to all permits.

AS 41.45.220 requires regulation of the surface effects of underground coal mining in a manner similar to the regulation of surface coal mining operations. The commissioner is given the power to suspend underground coal mining activities in populated areas if there is an imminent danger to inhabitants.

AS 41.45.230 authorizes the department to inspect and monitor surface coal mining and reclamation operations. The commissioner can require various forms of reporting and monitoring by operators, and must inspect operations on a irregular basis. Although inspections occur without prior notice to the permittee, the inspector must notify the permittee's representative on the site upon his arrival and invite the representative to accompany the inspector during the inspection. The inspector is required to file a inspection report. Procedures are set out for individuals to trigger inspections and for the commissioner to review failures to inspect adequately. This section is mandated by SMCRA, sec. 517(b).

AS 41.45.240 sets out the department's basic enforcement authority. SMCRA, sec. 518(i) and 521(d) require that state programs contain sanctions that are no less stringent than those

of the federal law and that state programs contain the same or similar procedural requirements. There are two basic enforcement mechanisms. A violation of the chapter or permit which causes imminent danger to public health or safety, or which threatens significant, imminent environmental harm, requires the inspector to issue a cessation order. The order remains in effect for 30 days unless an informal conference is held and further action taken. If a violation does not cause the sort of imminent danger noted above, a notice of violation is issued. Failure to comply with a notice of violation gives rise to a cessation order as well. Cessation orders and notices of violation are subject to appeals and full due process hearings for persons who may be adversely affected by them. Temporary relief is also available. The commissioner may issue a show cause order based on a pattern of unwarranted violations of the program. The commissioner may also request the attorney general to institute a civil action for relief. All of these actions are subject to judicial review.

AS 41.45.250 provides for civil and criminal sanctions for violations of the chapter and permits. Civil penalties are mandatory for cessation orders, but discretionary for notices of violation. Wilful and knowing violations, including those of a corporate officer, are class C felonies, as is wilful

interference with the department's employees. Failure to correct a violation during the period of time allowed in a notice or an extension requires a $750 per day penalty.

This bill omits a provision of SMCRA which requires operators to pay proposed penalty amounts into an escrow account before administrative and judicial review of the proposed penalty. This provision has been required of state programs in the past and its omission may not be acceptable to the Interior Secretary. It has been deleted because the department considers it unfair and constitutionally suspect.

AS 41.45.260 allows persons with an interest which may be adversely affected to petition the commissioner to designate areas as unsuitable for all or certain types of coal mining. An area must be so designated if the commissioner determines that reclamation in the area is not technologically feasible. There are also four discretionary criteria for designation of unsuitable areas, as well as an outright prohibition of mining in certain protected areas, such as near dwellings, schools, and churches. These provisions are required by SMCRA, sec. 522 and 30 CFR 732.15(b)(9).

AS 41.45.270 -- 41.45.340 contain provisions regarding abandoned mine lands, and are necessary for the state to implement a program through which it receives funds from the Federal Abandoned Mine Reclamation Fund for the reclamation of land adversely affected by past coal mining practices. After all coal lands have been reclaimed, the funds may be used for reclamation of non-coal lands and for community impact assistance in areas affected by coal mining operations.

AS 41.45 270 contains the administrative powers necessary to establish priorities, designate eligible lands, submit program elements to the Interior Department and administer funds received.

AS 41.45.280 defines eligible lands as those which were mined or affected by coal mining, left in an inadequate reclamation status, and for which there is no continuing reclamation responsibility.

AS 41.45.290 gives the department the power to enter property for reclamation purposes.

AS 41.45.300 authorizes the commissioner, under limited circumstances, to acquire abandoned mine areas for reclamation purposes, and to dispose of them.

AS 41.45.310 requires the commissioner to place a lien on property for an increase in fair market value because of the abandoned mine land reclamation efforts.

AS 41.45.320 authorizes filling voids and sealing tunnels with money from the Abandoned Mine Reclamation Fund.

AS 41.45.330 authorizes emergency entry without prior notice onto land to abate an emergency which constitutes a danger to the public health and safety.

AS 41.45.340 contains miscellaneous powers by SMCRA, sec. 412.

AS 41.45.900 specifies that the requirements of the chapter apply to government agencies, including publicly-owned utilities.

AS 41.45.910 exempts commercial coal operations which affect two acres or less from the chapter, as well as coal extraction as part of government-financed construction, and extraction of coal for the non-commercial use of the land owner or lessee.

AS 41.45.920 authorizes departures from the environmental performance standards for experimental practices of limited size which do not downgrade the environmental or public health or safety standards of the program.

AS 41.45.930 provides that this chapter does not affect water rights, and that any impairment of water supply must be remedied by the operator.

AS 41.45.940 provides authority for the commissioner to require certification of blasters, a power required by 30 CFR 732.15(b)(12).

AS 41.45.950 creates a civil cause of action against state agencies and alleged violators for persons who may be adversely affected by a failure to comply with the chapter. This provision is required by 30 CFR 732.15.(b)(10).

AS 41.45.960 provides that any provision of this chapter which the Secretary of the Interior determines to be inconsistent with the federal act is invalid. This provision merely recognizes that since the Interior Secretary has the power to declare inconsistent state provisions invalid for purposes of federal

program approval, the provision should become ineffective as a matter of state law, as well. The second part of this section requires the commissioner to review all changes made in the federal act or regulations, and to make appropriate recommendations as to whether or not the state program should be changed.

AS 41.45.970 clarifies that this chapter does not modify any state agency's powers over coal leases and exploration permits, except as specifically provided by this chapter and the implementing regulations. This section also makes the requirements of the chapter applicable to lands conveyed out of federal ownership.

AS 41.45.975 is a severability clause.

AS 41.45.980 makes the Administrative Procedure Act (AS 44.62) applicable to this chapter unless otherwise provided.

AS 41.45.985 cites the short title of the chapter, the "Alaska Surface Coal Mining Control and Reclamation Act."

AS 41.45.990 is a definitions section.

AS 41.45.920 authorizes departures from the environmental performance standards for experimental practices of limited size which do not downgrade the environmental or public health or safety standards of the program.

AS 41.45.930 provides that this chapter does not affect water rights, and that any impairment of water supply must be remedied by the operator.

AS 41.45.940 provides authority for the commissioner to require certification of blasters, a power required by 30 CFR 732.15(b)(12).

AS 41.45.950 creates a civil cause of action against state agencies and alleged violators for persons who may be adversely affected by a failure to comply with the chapter. This provision is required by 30 CFR 732.15.(b)(10).

AS 41.45.960 provides that any provision of this chapter which the Secretary of the Interior determines to be inconsistent with the federal act is invalid. This provision merely recognizes that since the Interior Secretary has the power to declare inconsistent state provisions invalid for purposes of federal

Section 2 of the bill requires applications to be submitted under this chapter within two months after the date the state program is approved by the Secretary of the Interior, and requires the Commissioner to process such an application within eight months after the Secretary's approval. These time frames are mandated by SMCRA, sec. 502(d).

Section 3 of the bill reserves the right of the state to contest the constitutional or statutory validity of any of the regulations issued under the federal act.

Sections 4 and 6 of the bill authorize the immediate adoption of regulations to implement new AS 41.45 although the regulations will not take effect until the effective date of the rest of the bill.

Section 5 provides that the rest of the bill becomes effective upon approval of the state program by the Interior Secretary.

NOTE REGARDING THE FOLLOWING FRAME ON MICROFILM:

COMPLETE DOCUMENT IS AVAILABLE IN ORIGINAL FILES IN ALASKA STATE ARCHIVES. TITLE PAGE ONLY HAS BEEN FILMED.

Federal Register

Wednesday
September 9, 1981

Part II

Department of the Interior

Office of Surface Mining Reclamation and Enforcement

Surface Coal Mining and Reclamation Operations Permanent Regulatory Programs; Performance Bonding

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

MINERALS AND ENERGY MANAGEMENT

Pouch 7-005
Anchorage, Alaska 99510

NOTICE OF PROPOSED CHANGES IN THE
REGULATIONS OF THE DEPARTMENT OF NATURAL RESOURCES

Notice is hereby given that the Department of Natural Resources, under authority vested by AS 38.05.020, AS 38.05.145 and AS 38.05.150, proposes to repeal and adopt regulations in Title 11 of the Alaska Administrative Code, dealing with Coal Leasing, to implement AS 38.05.145 and AS 38.05.150, as follows:

11 AAC 84.100 -- 11 AAC 84.170 are repealed and replaced with 11 AAC 85.005 -- 11 AAC 85.[illegible]5 which establish procedures for the disposal of coal resources owned by the State of Alaska.

These proposed regulations provide for the designation of lands as competitive and noncompetitive for coal leasing purposes and set out procedures for issuing and administering competitive coal leases, coal prospecting permits and noncompetitive coal leases. The proposed regulations include the criteria for a best interest determination to be made before a lease sale, plans of exploration and development and royalty value computation.

Notice is also given that any person interested may present oral or written statements or arguments relevant to the action proposed at public hearings to be held February 3 at the FNSB Noel Wien Public Library, 1215 Cowles Street, Fairbanks, Alaska from 7:30 p.m. to 8:45 p.m., February 4 on the top floor of the Pioneer School House, 3rd and Eagle Street, Ben Crawford Memorial Park, Anchorage, Alaska at 7:30 p.m. and February 5 at the Juneau Municipal Assembly Chambers, 155 S. Seward Street, Juneau, Alaska at 7:30 p.m.

Written comments may also be submitted to the Department of Natural Resources, Division of Minerals and Energy Management, Pouch 7-005, Anchorage, Alaska 99510. Comments must be received by February 12, 1982.

It is estimated that this action will require increased appropriations as follows (in thousands): FY 82, 34.8; FY 83, 73.5; FY 84, 133.1; FY 85, 142.9.

Copies of the proposed regulations may be obtained by writing or calling the Department of Natural Resources, Division of Minerals and Energy Management, Pouch 7-005, Anchorage, Alaska 99510, (907) 276-2653. Copies may also be obtained at the Department of Natural Resources, Office of the Commissioner, 11th Floor, State Office Building, Juneau and the Department of Natural Resources, Division of Minerals and Energy Management, Room 22, 555 Cordova Street, Anchorage.

The Department of Natural Resources, upon its own motion or at the instance of any interested person, may, at the hearing or after it, adopt the proposals substantially as described above without further notice or may decide to take no action on them.

Kay Brown

Date: Jan. 6, 1982

Kay Brown
Acting Director
Division of Minerals and Energy Management

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

MINERALS AND ENERGY MANAGEMENT

Pouch 7-005
Anchorage, Alaska 99510

January 7, 1982

Dear Alaskan:

Attached are proposed revisions to coal leasing regulations of the Department of Natural Resources.

Previous drafts of these regulations were sent out for informal review in February and November of 1981. Through this process, we have received valuable assistance from coal operators, environmentalists, and other interested persons. Many of their suggestions have been incorporated into this hearing draft.

I would like to take this opportunity to thank those persons for taking the time to help us. I feel these regulations will encourage and guide development of Alaska's coal industry in a manner which is consistent with the state's best interest.

The department will hold public hearings on these regulations in Anchorage, Fairbanks, and Juneau (see the attached "Notice of Proposed Changes in the Regulations of the Department of Natural Resources" for hearing details) and invites you to present a statement, oral or written, at the hearing or to send a statement directly to the Department of Natural Resources, Division of Minerals and Energy Management, Pouch 7-005, Anchorage, Alaska 99510. Please submit written comments by February 12, 1982.

Although some of the draft regulations are based on regulations already in effect (11 AAC 84.100 -- .170), extensive changes have been made and new sections have been proposed. In addition, we have moved the regulations from 11 AAC 84 to 11 AAC 85 and have renumbered all sections. Note the regulatory history enclosed in parentheses after each section. If a 1974 effective date is shown and there are no blank spaces, the regulation is identical to one now in effect in 11 AAC 84. If blanks are shown also, the section is a proposed amendment of a regulation in 11 AAC 84. If no date is shown at all, the section is totally new.

This new chapter is divided into three articles. The first two (11 AAC 85.005 -- 11 AAC 85.025 and 11 AAC 85.100 -- 11 AAC 85.125) deal with competitive and noncompetitive leasing, respectively. The third article (11 AAC 85.200 -- 11 AAC 85.285) addresses general leasing provisions. Please note that certain sections relate to the Surface Mining Control and Reclamation Act of 1977. We are currently working on a State of Alaska Surface Mining Act which, if enacted by the legislature, would supersede the Federal act.

Of particular concern to reviewers of past drafts was section 11 AAC 85.015, Bidding Terms. Commissioner John Katz has determined that, for the foreseeable future, competitive coal lease sales by the Department of Natural Resources will utilize the cash bonus/fixed royalty bidding method. However, since there may be circumstances for which other bidding methods are more appropriate, these regulations do not limit the bidding methods available to the state for coal lease sales. A similar position was taken by Charles W. Rech, Director, Office of Coal Leasing, Planning and Coordination, U.S. Department of Interior, in a letter to Mr. Robert H. Lawton, Director, Leasing Policy Development, Department of Energy. This letter was cited approvingly by some of those who commented on prior drafts of the proposed regulations.

Your testimony on the proposed regulations will be most useful to the Department if you reference particular sections by number and suggest specific wording changes or other modifications you feel would improve them.

Thank you for your assistance in this important matter.

Kay Brown

Kay Brown
Acting Director
Division of Minerals and Energy Management

CHAPTER 84. OTHER LEASABLE MINERALS.

Article
1. [Repealed]

DRAFT

ARTICLE 1. COAL. Repealed / /81.

CHAPTER 85. COAL.

Article
1. Competitive Leasing (11 AAC 85.005 -- 11 AAC 85.020)
2. Noncompetitive Leasing (11 AAC 85.100 -- 11 AAC 85.125)
3. General Leasing Provisions (11 AAC 85.200 -- 11 AAC 85.285)

ARTICLE 1. COMPETITIVE LEASING.

Section
005. Leasing procedures, general
010. Competitive designation
015. Bidding terms
020. Right to reject bids

11 AAC 85.005 LEASING PROCEDURES, GENERAL. Land designated as competitive for coal leasing purposes will be leased under the procedures provided under this chapter and in 11 AAC 82.400 -- 11 AAC 82.475. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 85.010. COMPETITIVE DESIGNATION. (a) State land will be designated as competitive for coal leasing purposes if the coal potential of the land for commercial development has been determined to be high or moderate by the Division of Geological and Geophysical Survey (DGGS) after reviewing all available data. Land will be ranked as having "high" potential where potentially commerical reserves are already proven by drilling or field investigation. Land will be ranked as having "moderate" potential if the land is within such a reasonable distance from coal outcrops or drill holes data to indicate the probable existence of potentially commercial deposits of coal.

(b) Land will not be designated as competitive for coal leasing purposes if the commissioner determines that there exists an irreconcilable conflict with surface use and coal development is not considered to be the highest and best use of the land. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.015. BIDDING TERMS. (a) The commissioner may choose any appropriate leasing method including but not limited to, cash bonus, royalty share, or net profit share as the bid variable. The written finding, prepared by the department under AS 38.05.035(a)(14), will contain the rationale on which the leasing method decision was based.

★ (b) Notwithstanding 11 AAC 82.465, up to 50 percent of the bonus payments may be deferred at the discretion of the commissioner, provided that notice of the deferred bonus payment and method of payment is published before the sale. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.020. RIGHT TO REJECT BIDS. The commissioner reserves the right to reject any and all bids and the right to offer the lease to the next highest qualified bidder if the successful bidder fails to obtain the lease for any reason. The commissioner will not accept any bid that is less than the minimum bid established before the sale. The commissioner will notify any bidder whose bid has been rejected and include in the notice a statement of the reason for the rejection. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

ARTICLE 2. NONCOMPETITIVE LEASING.

Section
100. Leasing procedures, general
105. Noncompetitive designation
110. Coal prospecting permits
115. Permit extensions
120. Permit conversion to lease
125. Determination of royalty

11 AAC 85.100. LEASING PROCEDURES, GENERAL. Land designated as noncompetitive for coal leasing purposes will be leased under the procedures provided under this chapter and in 11 AAC 82.500 -- 11 AAC 82.540. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 85.105. NONCOMPETITIVE DESIGNATION. (a) State land may be designated as noncompetitive for coal leasing purposes if the commissioner determines that:

(1) the land does not qualify for competitive leasing under 11 AAC 85.010; or

(2) the land was offered at a competitive sale and no acceptable bids were received.

(b) Land will not be designated as noncompetitive for coal leasing purposes if the commissioner determines that there exists an irreconcilable conflict with surface use and coal development is not considered to be the highest and best use of the land.

(c) Land opened for noncompetitive leasing before the effective date of this section is not available until the land is evaluated under 11 AAC 85.205. (Eff. / /82, Reg.) (prior noncom designations reevaluated)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.1 COAL PROSPECTING PERMITS. (a) A coal prospecting permit may be issued on those lands designated as noncompetitive.

(b) A coal prospecting permit issued under this section is a disposal of an interest in land and is subject to the requirements of AS 38.05.035(a)(14), AS 38.05.305 and AS 38.05.345. coal prospecting permit = land disposal

(c) A permit on noncompetitive land on which a permit or lease or a part of one is expired, relinquished, or otherwise terminated will be issued under the noncompetitive drawing procedure described in 11 AAC 82.515 -- 11 AAC 82.540. A decision to accept or reject an application shall be made within 6 months.

(d) The filing of an application for a coal prospecting permit does not vest a property right but merely creates a preference right to a permit, if a permit were to be issued.

(e) The permittee shall submit a prospecting plan of operations for approval by the commissioner before initiating any activity which would otherwise require a surface use permit. The plan must describe the method to be used in prospecting the land, the general location of all activities and routes of travel of all equipment, the type of equipment to be used, the estimated time schedule for the operations and any other information the commissioner may require. The plan must comply with applicable federal, state and local environmental protection laws and regulations. Within 30 days after receiving the plan, the commissioner will approve or disapprove it. The approved plan is subject to any conditions the commissioner may determine are necessary to protect the land and minimize damage to the land and its resources. Operations may not commence prior to approval of the plan.

(f) No coal may be removed and marketed or used from lands under prospecting permit except for that amount necessary for sampling and testing.

(g) A copy of all data obtained from the land reflecting all pertinent tests, reports, surveys, and analyses conducted on or pertaining to the permit land shall be submitted to the commission either upon application for conversion to lease under 11 AAC 85.120 or not more than 90 days after the expiration or termination of the permit. Data submitted under this section will be held confidential in accordance with AS 38.05.035(a)(9) or as otherwise required by law and will only be used for the administration of the functions, responsibilities, and duties vested by law in the commissioner. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.115. PERMIT EXTENSIONS. (a) In accordance with AS 38.05.150, a coal prospecting permit shall be extended by the commissioner for one period of two years if the application for extension includes

(1) an affidavit stating that the applicant has spent, in accordance with the terms of the permit, at least $10.00 per acre, to be adjusted, starting from the effective date of this section, in accordance with the GNP implicit price deflater, on work which adds to the knowledge of the coal deposit within the area covered by the permit and

(2) a description of prospecting activities showing substantial compliance with the prospecting plan of operations submitted under 11 AAC 85.110(e) or a statement which shows to the satisfaction of the commissioner that compliance with the prospecting plan of operations has been delayed or interrupted by force majeure; the permittee shall supply additional information if requested by the commissioner.

(b) Failure to pr ide the information or to make a showing of substantial compliance or force majeure as required in (a) of this section may result in denial of the request.

(c) An application for extension of a coal prospecting permit must be filed at least 30 days before the expiration of the permit.

(d) An extension will be issued within 65 days after receipt of a completed application. The filing of an application for an extension extends the permit until the application is either approved or denied.

(e) Before commencing operations under a prospecting permit extension, the permittee may be required to submit a new or revised plan of operations in accordance with 11 AAC 85.110(e). (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.120. PERMIT CONVERSION TO LEASE. (a) At any time during the term of a coal prospecting permit, the permittee is entitled to a noncompetitive coal lease on that portion of the permit area shown to contain coal in commercial quantities or needed for mining, reclamation or processing operations of that coal, upon the submission of a satisfactory mining plan.

(b) A plan submitted under (a) of this section may be conceptual and must include

(1) qualitative data supported by proximate and ultimate analyses on the coal beds on which reserve calculations are based;

(2) quantitative data for the coal beds on which reserve calculations are based describing bed thickness and bed continuity; all reserve calculations shall be classified as to the degree of accuracy using USGS/USBM terms "measured," "indicated," and "inferred" as defined in USGS Bulletin 1450-A (1976);

(3) topographic and geologic maps of the area of the permit, indicating the locations of sampling and drilling;

(4) description of the probable mining method;

(5) evidence of commercial quantity including, but not limited to, the estimated revenues from the sale of coal and the estimated cost of developing the mine and extracting, removing, processing, transporting, and marketing the coal; the costs of development shall include the estimated cost of exercising environmental protection measures, suitably reclaiming the land, and complying with all applicable federal, state, and local laws and regulations; and

(6) documentation or information as may be required by the commissioner in addition to or instead of (b)(1) through (5) of this section that may be reasonably required to assist the commissioner in understanding and evaluating the conversion of a prospecting permit to a lease.

(c) A "satisfactory mining plan" as used in (a) of this section is a plan which shows commercial quantities in an amount and quality sufficient under present and reasonably anticipated conditions to induce a prudent operator to pursue development.

(d) Under 11 AAC 85.110(g) an application for conversion to lease must include a copy of all data obtained from the permit land.

(e) Within 20 days from receipt, the commissioner will review the application and notify the applicant of any deficiency in the application. A decision will be issued within 65 days after receipt of a completed application. The filing of an application for conversion to lease extends the permit until the application is either approved or denied. A decision denying conversion to lease must be accompanied by a detailed description of the grounds or rationale on which the denial is based. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.125. DETERMINATION OF ROYALTY. The commissioner will determine the royalty rate in accordance with 11 AAC 85.220 before the issuance of a coal prospecting permit. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

ARTICLE 3. GENERAL LEASING PROVISIONS.

Section
200. Best interest determination
205. Reevaluation
210. Statement of conformance with acreage limitations
215. Term of lease
220. Royalty
225. Royalty value computation
230. Royalty in kind
235. Lease rental
240. Rental and royalty relief
245. Coal lease reclamation bond
250. Plan of operations
255. Transfers of interest
260. Limitation on overriding royalties
265. Suspension and termination
270. Coal mining units
275. Cooperative leasing
280. Surface Mining Control and Reclamation Act
285. Domestic Use coal license

11 AAC 85.200. BEST INTEREST DETERMINATION. (a) The Department will prepare a written finding before holding a competitive lease sale or issuing coal prospecting permits.

(b) This finding, based upon the best available information, shall consider

(1) the coal potential of the land as determined by DGGS;

(2) applicable state and local land use plans and classifications;

(3) comments from affected agencies;

(4) conflicts with surface use;

(5) the social and environmental impacts of coal exploration, development, and production in the area;

(6) the impact on potentially affected communities, including public services, and other public or commercial uses of the land; and

(7) economic values of coal exploration and development, including revenue potential and administrative cost to the state.

(c) When the commissioner determines that there exists an irreconcilable conflict with surface use and coal development is not considered to be the highest and best use of the land, a coal prospecting permit or lease will not be issued.

(d) Land which is legislatively designated for recreation, conservation or other related purposes and where coal exploration and development is prohibited will not be available for coal prospecting and leasing. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.205. REEVALUATION. (a) Land available for coal leasing may be periodically closed for a period of 30 days by order of the commissioner to reevaluate the appropriateness of the designation. The closing order must state the effective date and must state that the results of the reevaluation will be announced on the 31st day. If the land is reopened to noncompetitive leasing, new applications may be filed beginning on the 31st day.

who notified? DGGS?

(b) A decision not to reopen the land for noncompetitive leasing rejects any pending coal prospecting permit applications for that land. A rejected applicant will be notified of the reasons for rejection.

(c) Notwithstanding 11 AAC 82.110, permit applications filed before the closing order will be issued on a first-come-first-served basis in accordance with 11 AAC 85.110 if the land is reopened to noncompetitive leasing. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.210. STATEMENT OF CONFORMANCE WITH ACREAGE LIMITATIONS. An applicant for a prospecting permit or lease shall submit an affidavit which states that, with the area applied for, the applicant's interest or interests in other coal permits, leases, or applications for them, directly or indirectly, do not exceed the acreage limitations of AS 38.05.140 or that an application for additional acreage under AS 38.05.140(a) has been filed. If a lease or permit is issued which results in excessive acreage under AS 38.05.140, that lease or permit is null and void ab initio. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.140

11 AAC 85.215. TERM OF LEASE. (a) In accordance with AS 38.05.150, a lease will be issued for an indeterminate period of time subject to the conditions of diligent development and continued operation of the mine.

(b) The condition of diligent development will be determined to have been met if, upon review of the lease operations every ten years, the commissioner finds that

(1) the lease is producing coal in commercial quantities;

(2) the leased lands are committed to a coal mining unit as defined in 11 AAC 85.270, coal is being produced from the CMU in commercial quantities and the lessee is complying with all lease terms;

(3) the lessee is proceeding in good faith to develop the leased lands; or

(4) the lessee shows to the satisfaction of the commissioner that the development of a mine in accordance with a plan of exploration and development under (c) of this section is delayed or interrupted by force majeure.

(c) Within one year from the issuance of the lease, lessee shall submit to the commissioner a plan of exploration and development which outlines a schedule and discussion of proposed expenditures and commitments for the exploration and development of the lease or leases. This plan of exploration and development must be consistent with the estimated size of reserves and designed to bring the lease into production within a reasonable period of time. The commissioner will issue a written decision within 65 days from receipt of the plan which determines whether the proposed plan of exploration and development, when and if actually undertaken by the lessee, will qualify as "good faith to develop" within the meaning of (g)(4) of this section. This plan will remain in effect until production commences or the plan is revised.

(d) The plan of exploration and development must be revised whenever it appears that actual exploration or development will significantly deviate from that outlined in a previously approved plan.

(e) Within 65 days after receiving the proposed update of a plan of exploration and development, the commissioner will approve or disapprove the updated plan. If the plan is disapproved, the commissioner will state his reasons for disapproval and will, in his discretion, propose modifications which, if accepted by the lessee, would qualify the plan for approval.

(f) If operations are interrupted, the commissioner shall be notified. The commissioner shall determine whether the interruption constitutes failure to comply with the condition of "continued operation."

(g) The commissioner will, in his discretion, and upon request of the lessee, authorize the payment of an advance royalty instead of continued operation for any particular year.

(h) As used in this section,

DEFINITIONS:

(1) "commercial quantities" means a quantity of coal sufficient to yield a return in excess of operating costs, even if exploration and operation costs may never be repaid and the undertaking, considered as a whole, may ultimately result in a loss;

(2) "continued operation" means production of coal in commercial quantities, except when the operations under the lease are interrupted by force majeure;

(3) "force majeure" means war, riots, strikes, acts of God, unusually severe weather or any other cause beyond the lessee's reasonable ability to foresee or control, including delays caused by administrative or judicial decisions or lack of them, whether similar to those enumerated or not;

(4) "good faith to develop" means compliance with the plan of exploration and development in (c) of this section. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.150

11 AAC 85.220. ROYALTY. (a) The royalty rate will be based on the gross value of coal sold or used from the leased area in accordance with the following:

(1) five percent for noncompetitive leases;

(2) no less than five percent for competitive leases where royalty is a bid variable;

(3) no less than five percent nor more than 12 percent for competitive leases where royalty is not a bid variable.

(b) For leases in existence at the effective date of this section, the royalty rate will be changed to five percent of gross value at the time of adjustment.

(c) All royalty shall be paid by lessee to lessor and shall be received by lessor on or before the last day of the month following the month of production.

(d) For leases issued after the effective date of this section, the royalty rate is subject to adjustment at intervals of 10 years. The adjustment will take into account the current royalty rates and other consideration then being paid or received for coal of like or similar quality in the same general area or other relevant areas, wherever situated, and all relevant factors including changes in market conditions, transportation costs, the composition of the deposit and special characteristics, and the BTU content of the coal. A lease in existence at the effective date of this section will be adjusted in accordance with the terms of the lease. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.225. ROYALTY VALUE COMPUTATION. (a) If only crushing, storing and loading are performed prior to the point of sale, the gross value shall be the spot sale or contract adjusted unit price, whichever is applicable, times the units sold or used.

(b) If beneficiating or transportation costs are incurred prior to the point of sale, the following costs may be deducted from the gross value in determining value for royalty purposes:

(1) any processing performed prior to sale which adds value to the coal as compared to its run-of-mine value; these deductible processing costs include, but are not limited to, the costs of grinding, washing, drying, grading, sorting, briquetting, and any other means of beneficiating;

(2) reasonable transportation costs from the mine mouth to the point of sale.

(c) The commissioner will allow deductions under (b) of this section only when in his judgement the lessee provides him with an accurate account and justification for the costs. All deductions claimed will be subject to audit by the commissioner.

(d) If the commissioner determines that a contract or sale or other business arrangement between the lessee and a purchaser of some or all of the coal produced from the lease is not a bona fide arms length transaction between independent parties because it is based in whole or in part upon consideration other than the value of the coal; or that no consideration is received for some or all of the coal because the lessee is consuming such coal for his own use, the commissioner shall determine the gross value of such coal, taking into account

(1) any consideration received by the lessee in other related transactions;

(2) the average current price paid for coal of like quality from the same general area during the lease month;

(3) contracts or other business arrangements between coal producers and purchasers for the sale of coal other than coal produced under the lease which are comparable in terms, volume, time of execution, area of supply, and other circumstances; and

(4) such other relevant factors as the commissioner determines appropriate.

(e) The commissioner may, upon petition by the lessee, adjust the percent of value royalty rate to a comparable cents per ton rate in accordance with a written determination in which he states that it is in the best interest of the state to make the adjustment and there is adequate information to make an adjustment which is equitable to the state and the lessee. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.230. ROYALTY IN KIND. (a) Royalty from a coal lease may be taken in kind under the provisions of 11 AAC 82.700 -- 11 AAC 82.715, if the commissioner determines that taking in kind would be in the best interest of the state. The commissioner shall take into consideration the financial or legal hardships the taking may have on the lessee, including but not limited to, the necessity for additional capital equipment, increased costs in production and the inability to meet existing contractual obligations with customers.

(b) Notwithstanding 11 AAC 82.700, six months' written notice will be given to each lessee of the state's election to take the royalty in kind.

(c) Notwithstanding 11 AAC 82.700, if the state elects to take royalty in kind, the lessee shall deliver the royalty coal to lessor on the leased premises, into trucks or other carriers, slurry pipelines, or onto storage piles designated by lessor free of charge, but lessee may not be required to provide free storage for longer than 30 days or pay slurry pipeline charges

for any such coal run onto storage piles or into slurry pipelines. The lessor may elect to receive the royalty coal at point of sale or any other established unloading or transfer point between the lease and the point of sale, but the lessee will not be required to pay transportation and handling costs. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.235. LEASE RENTAL. (a) The annual rental will be $3 per acre or fraction thereof.

(b) For leases issued after the effective date of this section, the annual rental payment is subject to adjustment at intervals of 10 years. The adjustment will take into account the current rental rates for leases in the same or similar areas, wherever situated, and all relevant factors affecting the development of a commercial operation. A lease in existence at the effective date of this section will be adjusted in accordance with the terms of the lease.

10-year adjustment

(c) The rental payment for the first year of the lease is due on the date that the lease is granted, and the rental for each succeeding year shall be paid on or before the beginning of each lease year.

pay in advance by year

(d) The rental for each lease or coal mining unit for each year will be credited against the royalties as they accrue for that year. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.150

11 AAC 85.240. RENTAL AND ROYALTY RELIEF. (a) An application under AS 38.05.140(d) for reduction of the lease royalty, or for a waiver, suspension, refund, or reduction of the rental or minimum royalty, must be filed in accordance with 11 AAC 82.665.

(b) For the purposes of this section and AS 38.05.140(d), "royalty" includes net profit share payments. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.140
AS 38.05.150

11 AAC 85.245. COAL LEASE RECLAMATION BOND. (a) A coal lease reclamation bond is required before a lease is issued, and in no case may the amount be less than $5 per acre or $5,000, whichever is greater. For any mining operation subject to the provisions of the Surface Mining Control and Reclamation Act of 1977, the amount of the bond shall cover the entire lease prior to approval of a plan of operations and after that for that portion of the lease outside of the area covered by a permit issued under that Act. For a mining operation exempt from that Act, the amount of the bond shall cover the entire lease. The commissioner may, in the event of any significant change in the scope of operations or prior to approval of an assignment, alter the amount of the bond.

(b) The bond must be filed in accordance with 11 AAC 82.600.

(c) The commissioner will not consent to termination of liability under the coal lease bond unless an acceptable substitute bond has been filed or until all terms and conditions of the lease have been fulfilled. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 85.250. PLAN OF OPERATIONS. For any mining operation exempt from the provisions of the Surface Mining Control and Reclamation Act of 1977, the commissioner will require the lessee to submit a plan of operations that accords with the principles embodied in that Act for his approval before beginning mining operations. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 85.255. TRANSFERS OF INTEREST. (a) Before the commissioner approves an assignment, sublease or other transfer of an interest in a permit or lease, including assignments of working or royalty interest and operating agreements and subleases,

(1) the account of royalties, net profit share payments, and rentals due under the lease must be in good standing;

(2) the transferee must submit a statement of qualifications under 11 AAC 82.205 and 11 AAC 85.210; and

(3) the transferee must file an affidavit stating who is responsible for performing all obligations under the permit or lease.

(b) The consent of the surety to the substitution of the transferee as principal or a new bond with the transferee as principal must be submitted in writing to the commissioner if the original lease required the maintenance of a bond. If the transfer is for part of the leased land only, the consent of the surety to the transfer and its agreement to remain bound as to the interest retained by the lessee must be submitted, as well as a new bond with the transferee as principal covering the portion of the leased lands assigned or subleased.

(c) The assignor shall be liable for all obligations and liabilities accrued before the effective date of the assignment and the assignee shall be liable for all obligations and liabilities accrued after the effective date of the assignment. In the case of a sublease or a transfer of an interest other than an assignment, the lessee or permittee shall continue to remain liable for all obligations under the lease or permit. The commissioner may take any legal action necessary to secure compliance with the terms and conditions of a lease or permit. This action may be taken against either lessee or permittee or any of its successors or against both lessee and permittee and its successors.

(d) The approval of an assignment of only a part of the lands in a lease shall create a new lease bearing a new serial number but containing the same terms and conditions as the original lease. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 85.260. LIMITATION ON OVERRIDING ROYALTIES. (a) No overriding royalty, net profits interests or other payments out of production or revenues from the lease may be created which exceed the rate of royalty first payable to the State of Alaska under the lease unless the lessee shows to the satisfaction of the commissioner that the royalty is justified by substantial improvements made or to be made to the leasehold.

(b) The term "payments out of production" as used in this section is defined as a share of the coal produced from the lease, free of the costs of production. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 85.265. SUSPENSION AND TERMINATION. If the lessee substantially breaches a significant provision of a permit or lease, or fails to comply with the applicable statutes and regulations, and the failure continues for 30 days after service of written notice by the commissioner, the commissioner may suspend activity on the permit or lease until compliance is achieved, or may terminate the lease after notice and an opportunity to be heard. (Eff. 9/4/74, Reg. 51; am / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 85.270. COAL MINING UNITS. (a) For the purpose of achieving more economic operations or more efficient and orderly recovery of coal, leases may, with the approval of the commissioner, be united and the lessees adopt a cooperative or unit plan of development and operation of their leases. As a condition of approval of a Coal Mining Unit (CMU) the commissioner may, with the consent of the state lessees, establish, alter, change, or revoke the development, production, rental, minimum royalty, or royalty requirements of the state leases within the unit area, which he determines necessary or proper to protect the public interest and to conserve natural resources. The commissioner may require, as a term of a competitive sale lease, that the leased area be united into a CMU.

(b) A unit shall consist of an area of coal land which can be developed and mined in an efficient, economic and orderly manner with due regard for the conservation of coal and other resources. It may consist of one or more leases and may include intervening or adjacent nonstate lands, but all land in the unit must be capable of being developed and operated as a unified operation. Approval of the CMU is subject to the conditions of diligent development and continued operation of the unit. Diligent development and continued operation anywhere within the CMU, with respect to either state or nonstate coal deposits, shall be considered to have occurred on each state lease in the CMU.

(c) A CMU containing any interest other than a single State lease becomes effective upon approval by the commissioner when requested by the lessees.

(d) The boundaries of a CMU may be changed upon application by the lessee and with the approval of the commissioner.

(e) If any coal lands in a CMU are relinquished, the lease terms for the unit will be adjusted accordingly.

(f) Interests in coal gained through the formation of a CMU shall not be counted as acreage under 11 AAC 85.210. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 85.275. COOPERATIVE LEASING. The commissioner may enter into agreements with other owners of coal deposits for joint lease sales or to offer state leases on terms compatible with leases on lands owned by the other party that could be united with the state leases in a CMU. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.027
AS 38.05.145

11 AAC 85.280. SURFACE MINING CONTROL AND RECLAMATION ACT. All coal mining leases and operations must conform to the approved state program under the Surface Mining Control and Reclamation Act of 1977 or to the federal program in the event a state program is not adopted. (Eff. / /82, Reg.)

Authority: AS 38.05.145

11 AAC 85.285. DOMESTIC USE COAL LICENSES. (a) The commissioner may issue licenses to individuals to prospect for, mine, and take for their personal use, coal from designated areas upon payment of fair market value. Only that coal needed for actual use may be mined and no coal shall be disposed of for profit.

(b) A coal license will be limited to a designated area and will terminate at the end of two years from the date of issuance. An application for a two year renewal must be filed 30 days before its termination date.

(c) Each holder of a coal license shall file an annual report on the form provided by the Department of Natural Resources. (Eff. / /82, Reg.)

Authority: AS 38.05.020
AS 38.05.145

Coal Surface Mine Land Reclamation Costs

Walter S. Misiolek and Thomas C. Noser

INTRODUCTION

Prior to passage of the Surface Mining Control and Reclamation Act of 1977, land reclamation requirements varied considerably among the major coal-producing states.[1] Although the Act established uniform standards for restoration of mined lands and protection of the environment and appears to be compatible with the goal of internalization of external costs, it has been assailed by the mining industry and by elected political officials in several states as excessively costly and stringent.[2] Criticism has been particularly strong in some eastern states where profits for many mining operations were marginal under prior, less stringent state requirements, and where coal beds are thinner than in other regions, so that the costs of surface preparation and revegetation are spread over fewer tons of coal per acre of land disturbed. There is growing evidence that cost (and profit) differentials associated with this effect may be contributing significantly to shifts in regional mining patterns, with many eastern states experiencing negative employment effects in this expanding industry. In addition, some analysts have expressed concern that the high cost of producing eastern coal in compliance with federal land reclamation requirements, coupled with rail transportation constraints in the West, may severely inhibit continued expansion of the coal industry.[3]

A number of recent studies, including papers by Lin, Spore, and Nephew (1976) and Randall et al. (1978), and federally funded research projects conducted by Energy and Environmental Analyses, Inc. (1977) and ICF, Inc. (1977), have attempted to estimate environmental benefits and/or employment effects of the new land reclamation requirements. It has become common practice in such work to adapt cost estimates for land reclamation operations from one or more of five principal sources: Skelly and Loy (1975), Evans and Bitler (1975), Nephew and Spore (1976), Fluor Utah/Bonner and Moore (1977), and Persse, Lockard, and Lindquist (1977). Each of these five studies estimates the cost of land reclamation through either the case-study or the mine-simulation approach. Both of these methods involve specification of

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[1] ICF, Inc. (1977) and Energy and Environmental Analysis, Inc. (1977) analyze pre-1977 state surface mining requirements.

[2] Several suits have been filed against the regulations, the first by the Virginia Surface Mining and Reclamation Association, Inc. The governor of Virginia, in apparent support of mining interests, has spoken out forcefully against the federal regulations. For additional details, see the Tenth Annual Report of the Council on Environmental Quality, December 1979, p. 338.

[3] Larwood and Benson (1976) project a potentially severe shortage of rail capacity in 1985 due in part to the financial conditions of the carriers, the uncertain future, and unfavorable financial market conditions, all of which promote highly conservative investment decisions.

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equipment and labor requirements for performance of the necessary earthmoving and revegetation operations under assumed or actual mining conditions. Despite this similarity, wide differences exist among the land reclamation cost estimates developed in the five studies. This is due, in part, to differences in the mining scenarios analyzed and to differences in defining the cost of land reclamation.

Inconsistencies sometimes occur when the cost estimates derived in these studies are used without adjustment in cost-benefit analysis. For example, of the five studies cited, only Nephew and Spore include an appropriate return on capital in calculating land reclamation costs; the other four fail to allow for normal profits (or required returns) in estimating costs of reclamation. The Nephew and Spore study, however, focuses specifically on contour mining operations in Appalachia, which differ substantially from larger scale area mining techniques employed in other regions of the country. It would seem inappropriate therefore to use the Nephew and Spore cost estimates in analyzing impacts of the new legislation in other geographical regions.

Given the lack of consistency in prior reclamation cost estimates and what we perceive to be some definite methodological problems, the primary objective of this study is to develop a method for estimating costs of land reclamation for large-scale area mining operations in the United States consistent with basic economic principles. The mine simulation approach, which typifies work in this area, will be extended to include relevant opportunity costs and will be studied to determine whether any unusual properties may be typically associated with this method of cost estimation. In addition, we will develop estimates of land reclamation costs for surface mining scenarios, characteristic of those found in the major coal-producing states, to compare the cost impacts of the federal reclamation regulations in different regions.

THE MODEL

A common problem shared by recent land reclamation studies is the lack of sufficiently complete, technically accurate data on the behavior of individual firms. Many mine operators are reluctant to reveal information for competitive or legal reasons. In other cases, questions arise concerning the validity of the data provided. Land reclamation equipment, for example, is typically used for a variety of nonreclamation functions at the mine, including road work, clearing, and bench preparation, and it is frequently difficult for an outsider—given little, if any, opportunity to observe an ongoing mining operation—to ascertain the extent to which reclamation equipment is actually utilized in land reclamation activity at a given site. The case study approach used by Evans and Bitler and by Skelly and Loy, among others, is susceptible to biases in overestimation of land reclamation cost due to failure to apportion part of the cost of reclamation equipment to other mining operations.

Recognition of this problem contributed to our decision to estimate reclamation costs via the mine simulation approach. We treat land reclamation activities as an integral element of the whole mining process and estimate the cost of these activities through a comparison of estimated mining costs when specific reclamation operations either are or are not performed. Thus, we allow for potential cost savings which may occur when land

reclamation operations perform tasks that would otherwise be performed by basic mining equipment, such as occurs when topsoil removal reduces the volume of overburden to be excavated by the primary stripping equipment.

The structure of the model developed reflects the individual operations that are performed in coal surface mining and land reclamation. These include exploration drilling; fragmentation and stripping of the overburden; coal fragmentation, loading, and hauling; recontouring and grading; topsoil removal and replacement; and revegetation. We determine the size and/or number of pieces of equipment required to perform each task through conventional engineering formulas adapted from a variety of sources including the *SME Mining Engineering Handbook* (1973), the *Coal Age Operating Handbook of Coal Surface Mining and Land Reclamation* (1978), the *Cost Reference Guide for Construction Equipment* (1980), a handbook of basic engineering principles published by the International Harvester Company (1975), a basic excavation principles text by Drevdahl (1961), and a study of coal-mining cost models directed by Stinnett for the NUS Corporation (1977). Equipment requirements are calculated for moving the necessary volume of material or performing other specific mining tasks under a set of assumed mining conditions, operating speeds, and equipment efficiencies.[4]

We assume that overburden stripping operations are performed using draglines in each mining situation. Although shovel-truck (or truck-haulback) techniques are used in some U.S. area mines, costs of this mining method were not developed for this paper for two reasons: (1) dragline stripping accounts for the vast majority of overburden excavation in recently opened large-scale mines, and (2) land reclamation costs are not easily estimated even on an incremental basis for the shovel-truck mining case because spoil placement can be coordinated with overburden excavation, leaving little grading or recontouring to be done by reclamation equipment. Other studies indicate that the savings in direct reclamation costs associated with this mining method only partially offset the higher overburden excavation expenses when the method is used in area mines on relatively flat terrain.[5] For other mining tasks, we likewise assume that conventional surface mining equipment is used: power shovels or front-end loaders for coal loading, off-highway trucks for hauling, bulldozers for grading and contouring, and self-loading scrapers for topsoil removal and replacement.

Equipment selection formulas were verified through simulation of several operating surface mines in Alabama and through replication of several published surface mine scenarios, including four area mines described in the Fluor Utah/Bonner and Moore (hereafter, FUBM) study. A comparison of equipment selected by our model with that specified in the FUBM analysis is presented in Table 1. Differences in equipment are slight and are attributed in part to differences in the structure of the two models, which require us to make certain assumptions concerning the magnitudes of parameters

[4] The basic equations used in the model and a set of tables listing ranges of realistic values for equipment operation factors and digging and earth-moving conditions are presented in the report "Analysis of Bituminous Coal Production Costs in the Warrior Coal Field: Economic Analysis of the 1977 Reclamation Law" by W. S. Misiolek and J. E. Bailey, which is available on request from the School of Mines and Energy Development at the University of Alabama.

[5] See Fluor Utah/Bonner and Moore (1977) and Bertoldi (1977).

TABLE 1
COMPARISON OFOR EQUIPMENT SELECTION FOR DRAGLINE MINING SCENARIOS DESED IN FLUOR UTAH/BONNER AND MOORE (1977)

	Illinois Basin Mine	Texas Gulf Mine	Ft. Union (Montana) Mine	Four Corners (New Mexico) Mine
Overburden depth (ft.)	71	35	42	58.32
Coal seam thickness (ft	4	10	12	12
Annual production (M t	5,451	9,318	9,160	7,261
Topsoil saved (ft.)	1	.83	1.25	.33
*Dragline size (cu. yd.)				
FUBM	126	45	45	45
our results	110	37	36	40
*Coal loader size (cu. yd.				
FUBM	16	16	16	16
our results	11	18	18	14
Coal truck size (tons)				
FUBM	180	180	180	180
our results	110	125	120	100
Number of trucks				
FUBM	9	12	12	12
our results	14	19	19	19
Scraper size (cu. yd.)				
FUBM	32	32	32	32
our results	31	31	31	31
Number of scrapers for reclamation				
FUBM	14	6	9	3
our results	15	9	11	3
Bulldozer size (horsepower)				
FUBM	410	410	410	410
our results	410	410	410	410
Number of bulldozers for reclamation				
FUBM	11	8	5	5
our results	10	7	6	5

* Three draglines and coal loaders are used at each mine, one of each for each of three working pits.

that have no direct counterpart in the FUBM model.

Labor and support equipment requirements in our model are based on primary equipment requirements for each mining scenario. Costs of equipment, labor, and support facilities are in constant 1980 dollars. Equipment prices and operating and maintenance cost estimates were obtained directly from manufacturers, including the Bucyrus Erie Company and the Caterpillar Tractor Company, and from cost reference guides published by the Equipment Guidebook Company. When a variety of different equipment sizes were available

from several manufacturers for performing certain tasks, as for example, for coal-hauling, linear regression analysis was used to estimate the price-size relationship.[6] Costs of support facilities were provided by representatives of a local mining company in June 1980 and were estimated in accordance with guidelines suggested in the NUS study directed by Stinnett. Labor cost estimates were made using United Mine Workers wage scales effective during the second quarter of 1980.

The cost per ton of mined coal is determined through the uniform annual series method of discounted cash-flow analysis.[7] The required annual cash flow (RCF) for a prospective new mining operation is the stream of equal annual net cash receipts whose discounted present value equals the discounted present value of investments (PV). These investments include initial equipment and structures, preproduction expenses, working capital requirements, and replacement equipment as required under assumed depreciation rates. With all costs specified in constant dollars and i representing the real discount rate (real required rate of return), RCF is calculated according to

$$PV = RCF \sum_{t=1}^{N} \frac{1}{(1+i)^t} \qquad [1]$$

or

$$RCF = PV / \sum_{t=1}^{N} \frac{1}{(1+i)^t} \qquad [2]$$

This required cash flow is also defined as equal to annual sales revenues less operating expenses adjusted for income-tax liabilities. Required annual sales revenues (SR) are, thus, calculated from the expression

$$RCF = (SR - OPEXP) - \tau[(1-d)SR - \text{OPEXP}] + NCEXP \qquad [3]$$

where $NCEXP$ is annual noncash operating expense, consisting primarily of straight-line depreciation allowances; $OPEXP$ is the sum of $NCEXP$ and annual cash operating expenses, which consist of equipment operating and maintenance expenses, annual payroll costs, and nonincome taxes; τ is the corporate income-tax rate; and d is the coal depletion allowance for tax purposes.[8] Solving [3] for SR and combining with [2] yields the expression

$$SR = \frac{\left(PV / \sum_{t=1}^{N} \frac{1}{(1+i)^t}\right) + OPEXP(1-\tau) - NCEXP}{1-\tau(1-d)} \qquad [4]$$

In the absence of royalty payments, the price per ton of coal received by the mine operator (p) is determined by dividing SR by the annual output (Q),

$$pQ = SR \qquad [5]$$

$$p = SR/Q \qquad [6]$$

We express royalties as a percentage of sales revenues so that the gross sales price (P) is determined as

$$P = \frac{p}{1-r} \qquad [7]$$

[6] Multiple correlation coefficients for this group of equations ranged from .818 to .996, exceeding .95 in the majority of the cases.

[7] See Haley and Schall (1979) or Grant and Ireson (1960).

[8] Refer to section 613 of the Internal Revenue Code for calculation of coal depletion allowances, which are currently 10% of sales revenues to a maximum of 50% of gross profit. We assume the 50% limit does not apply to cases analyzed in this paper.

where r is the royalty rate. Combining expressions [6] and [7] yields the minimum acceptable gross selling price of coal for the prospective mine

$$P = \frac{SR}{(1-r)Q} \qquad [8]$$

This price covers all costs of operation including taxes and royalties and allows for a normal rate of return on the operator's capital investment and is, therefore, interpreted as the cost per ton of mined coal. Land reclamation costs are estimated through measurement of the effect of land reclamation operations on the gross sales price.

Reclamation cost estimates prepared according to this procedure for the four area mine scenarios developed in the FUBM study are compared with the FUBM cost estimates in Table 2. We assumed a 7% required real rate of return on capital in our calculations.[9] Sensitivity analysis revealed that our cost estimates were not greatly affected by modest variations in the discount rate. An increase or decrease of one percentage point in the discount rate (from 7% to either 8% or 6%) increased or decreased the estimated cost of land reclamation by approximately 2% to 2½% for each of the FUBM mine simulations.

The FUBM costs reported in Table 2 were adjusted for inflation using the Producers Price Index for Construction Machinery and Equipment. Even so, considerable disparity exists between the estimates. We attribute this difference primarily to the method of calculation of reclamation costs in the FUBM study.[10] Impacts of taxes, opportunity costs, and royalties on the selling price of coal are determined in the FUBM study subsequent to the calculation of "direct operating cost" for each mining function. Opportunity costs and other indirect costs are not apportioned back to the individual mining operations. Likewise, reclamation cost estimates developed by Skelly and Loy, Evans and Bitler, and Persse, Lockard, and Lindquist fail to account for investment opportunity costs and other indirect costs of mining. The incremental cost approach taken in this study effectively apportions the relevant share of opportunity cost, property taxes, royalty payments, secondary equipment requirements, maintenance facility requirements, and other nondirect costs (all of which are functions of either coal price or primary equipment requirements) back to the land reclamation activities.

Our analysis of the FUBM sample mines indicates that topsoiling activities account for approximately half of total reclamation costs when one foot of topsoil is segregated. This is consistent with the findings by FUBM and by Persse, Lockard, and Lindquist and with the findings of a study by a committee of the National Academy of Sciences and the National Academy of Engineering (1974, p. 87), which reported that the replacement of topsoil will usually be the largest single expense of reclamation. It is interesting that Nephew and Spore and Lin, Spore, and Nephew report that the

[9] This figure is somewhat lower than that used in some recent coal industry studies, as for example, in the NUS study directed by Stinnett which assumes a 10% cost of capital. We selected the 7% figure because we felt it represented a reasonable sum of the pure rate of time preference plus a risk premium appropriate to coal surface-mining operations given the high current growth potential for the industry.

[10] This difference may also be due in part to the use of the Producer Price Index for Construction Machinery and Equipment for the inflation adjustment. This index undoubtedly understates the effect of inflation on mining costs because operating and maintenance costs have increased more rapidly than equipment prices since 1975.

TABLE 2
COMPARISON OF RECLAMATION COST ESTIMATES
(1980 Constant Dollars)

	Illinois Basin Mine	Texas Gulf Mine	Ft. Union (Montana) Mine	Four Corners (New Mexico) Mine
Overburden depth (ft.)	71	35	12	12
Coal seam thickness (ft.)	4	10	42	58.32
Topsoil saved (ft.)	1	0.83	1.25	0.33
Topsoiling cost ($)				
per ton of coal				
FUBM*	.39	.12	.14	.03
our results	.47	.16	.21	.07
per acre disturbed				
FUBM*	2,506	1,747	2,551	676
our results	3,113	2,576	4,057	1,391
Grading cost ($)				
per ton of coal				
FUBM*	.30	.13	.09	.09
our results	.37	.15	.13	.13
per acre disturbed				
FUBM*	1,935	1,935	1,445	1,695
our results	2,451	2,415	2,512	2,583
Revegetation cost ($)				
per ton of coal				
FUBM*	.05	.02	.02	.02
our results	.10	.04	.03	.07
per acre disturbed				
FUBM*	326	326	326	490
our results	662	644	580	1,391
Total reclamation cost ($)				
per ton of coal				
FUBM*	.75	.27	.25	.14
our results	.94	.35	.37	.27
per acre disturbed				
FUBM*	4,767	4,009	4,322	2,861
our results	6,226	5,635	7,148	5,365

* Results were adjusted to 1980 constant dollars using the Producers Price Index for Construction Machinery and Equipment.

incremental cost of topsoiling accounts for only approximately 4% of total reclamation costs in Appalachian contour-mining operations. The topsoil layer is often thin or nonexistent on the steep slopes of the Appalachian region and the grading and recontouring costs for unsegregated soil are higher than on flat terrain, leaving the incremental cost of topsoil segregation and replacement relatively small. Several studies, however, have applied the Nephew and Spore topsoiling cost estimates directly to the estimation of land reclamation costs in

other regions of the country. This includes the study by ICF, Inc., which uses a topsoiling cost estimate for non-Appalachian mines of $350 per acre in 1978 dollars or approximately $435 per acre when converted to 1980 dollars, a figure considerably below both our estimate and the FUBM estimate for the Four Corners Mine in which only four inches of topsoil is segregated.

Persse, Lockard, and Lindquist estimate the total cost of land reclamation at an average of $3,563 per acre in first-quarter 1976 dollars (approximately $5,400 in 1980 dollars) for Great Northern Plains Mines at which topsoil is segregated; a figure that falls about midway between the FUBM estimate and ours for the Fort Union Mine. The frequently quoted study by Evans and Bitler estimates an average cost of $7,649 per acre in 1975 dollars (approximately $12,000 in 1980 dollars) for area mines in the eastern United States. This figure exceeds our highest cost estimates by a considerable margin. On the basis of the methods used by Evans and Bitler to calculate costs and because of the absence of top-soiling activity from some of their sample cases, we anticipated that our cost estimates would greatly exceed theirs. We found, however, that the data reported by Evans and Bitler reveal that they estimate between 20,000 and 60,000 cubic yards of spoil are moved per acre during backfilling and topsoiling operations. (For area mines the average is 38,245 cubic yards.) We believe these figures are implausibly high. Mining companies that cooperated with our study estimate that 7,000 to 8,000 cubic yards are moved during backfilling per acre and 1,000 to 2,000 cubic yards during topsoiling. Our calculations for the four FUBM sample mines indicate a range of 9,704 to 11,176 cubic yards of material moved during backfill and topsoiling, which includes an adjustment for 20% rehandling or stockpiling during both operations. Furthermore, when 40 feet of overburden exists at a site, calculations reveal the presence of only about 64,000 total cubic yards of overburden per acre. We believe, therefore, that a realistic estimate of reclamation costs would be substantially less than the average figure reported by Evans and Bitler.

INTERREGIONAL ANALYSIS

In the 1976 Federal Energy Administration report, *National Energy Outlook*, coal-producing states in the contiguous United States are grouped into eleven coal-supply regions on the basis of similarities in coal and overburden characteristics. These regions are illustrated in Figure 1. In two of these regions (regions 6 and 7), the primary product is lignite, which is not strictly substitutable for bituminous coals in most uses, due to differences in physical properties. Lignite mining situations, therefore, were excluded from our analysis. In a third region (region 2), most coal is produced using contour mining methods, which are generally more costly than the area mining operations simulated by our model. Because it was not possible with our data sources to determine the likely extent of area mining in this region or to specify probable geologic conditions for area mining operations, we were forced to omit the three states included in this region from analysis. From the eight remaining regions, we included in our sample all states whose 1979 production of bituminous and/or subbituminous coal exceeded four-million tons.[11] The states

[11] The annual production survey published in the 1979 *Keystone Coal Manual* was consulted to insure that we had not failed to analyze any state in which significant expansions of large-scale surface mining activity were planned for the 1980's. None were found.

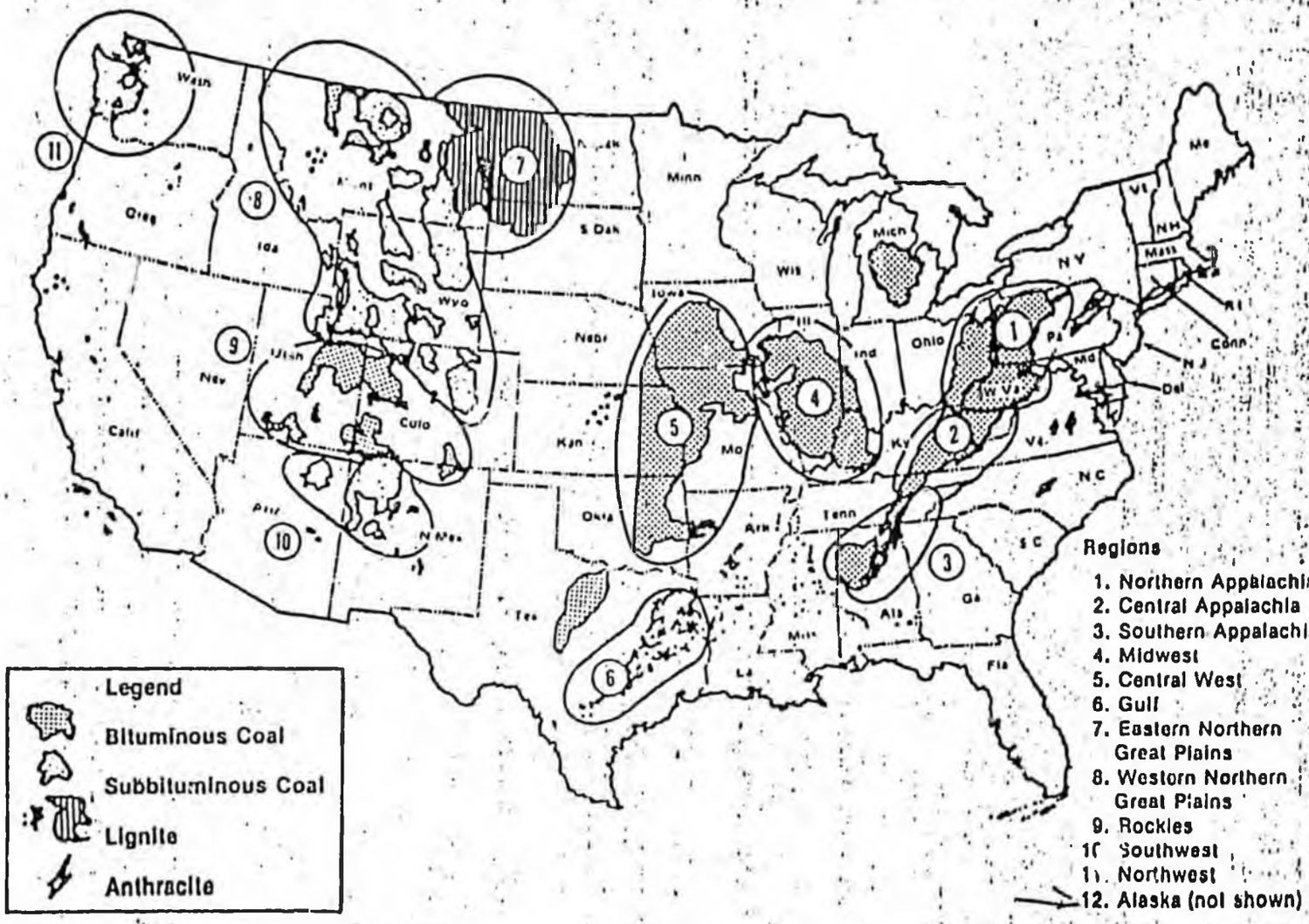

FIGURE 1
U.S. COAL PRODUCING REGIONS
(Adapted from the Federal Energy Administration, National Energy Outlook, 1976)

selected for analysis were: Ohio, Pennsylvania, Alabama, Illinois, Indiana, Missouri, Oklahoma, Montana, Wyoming, Colorado, Arizona, New Mexico, and Washington. For each of these states, probable coal-seam and overburden characteristics were determined from published sources.[12] Probable mine sizes were set in accordance with existing mines and projected new mines in each state as reported in the 1979 *Keystone Coal Manual*, and with the goal of specifying mining situations that would employ draglines of the most efficient size range, which industry sources report to be approximately 40 to 80 cubic yard bucket capacity, and coal-loading equipment of efficient sizes and types. The end result of this procedure was that probable mine sizes in each state were related to probable coal-seam thicknesses. The typical new mine size was set at one-million tons per year for states whose coal-seam thickness was less than five feet, increasing in steps of one-million tons for each five-foot increment in seam thickness to a maximum size of five-million tons per year for states whose probable coal-seam thickness exceeded twenty feet.

Considerable variation in severance, income, and property taxes exists across the states studied. This variation is associated in part with differences in objectives of taxation which may in some cases include attempts to encourage or discourage production. These differences, if reflected in simulation analysis, would result in a distortion of pure production costs for comparison purposes. To avoid this effect we estimated what the cost of coal production would be in each state if taxes were the same as in our home state, Alabama. In the same vein, we assumed that royalties were calculated in each state as 12% of sales price.

Variations in topsoil thicknesses across regions would undoubtedly result in some variation in topsoiling requirements. Again, however, for purposes of comparison we assumed that one foot of topsoil would be segregated in each state analyzed. This seems to be a reasonable figure for area mining operations on flat terrain, except for some western mines at which topsoil may be virtually nonexistent and for cases in which prime farm lands may be mined.[13] Although differences in plant species used in revegetation exist among the regions, we found little evidence of significant variations in seed, mulch, and soil amendment costs except between arid and nonarid regions (particularly for the desert Southwest in comparison with other regions). We assumed therefore that per-acre revegetation supply costs and the basic nature of revegetation operations would be the same in all states except for the desert states of region 10. While this assumption is somewhat restrictive, we do not believe it significantly distorts cost comparisons because revegetation is by far the least costly of the three basic reclamation operations analyzed.

Assumed mining conditions and the results of the mining and land reclamation cost simulation analysis for each of the thirteen states are presented in Table 3. Required dragline and coal-

[12] Coal-seam thickness and overburden-depth estimates for new mines in each state were adapted from the ICF, Inc., report to the Council on Environmental Quality and the Environmental Protection Agency. Coal and overburden density estimates were obtained from U.S. Bureau of Mines data and from Fluor Utah/Bonner and Moore.

[13] Federal law requires 48 inches of topsoil reconstruction on prime farm lands. The cost of this practice is anticipated to be a significant deterrent to mining affected areas. We consider this to be a special case which might apply in any region and do not include prime farmland mining as typical for any of the states analyzed. We do, however, consider here the cost effect of a reduction in topsoil segregation requirements for some western states.

TABLE 3
MINING CONDITIONS AND RECLAMATION COSTS FOR TYPICAL REGIONAL MINES
(1980 Constant Dollars)

Region	Ohio 1	Pennsylvania 1	Alabama 3	Illinois 4	Indiana 4
Assumptions					
Annual production (million tons)	1	1	1	1	1
Overburden depth (feet)	69	54	50	69	68
Coal-seam thickness (feet)	3.5	3.2	2.3	4.7	3.7
Coal density (tons per acre foot)	1,800	1,800	1,800	1,800	1,800
Results					
Acres mined per month	14.70	16.08	22.37	10.94	13.90
Dragline size (cubic yards)	67	57	74	50	63
Coal loader size (cubic yards)	12	12	12	12	12
Bulldozer size (horsepower)	620	620	410	410	410
Bulldozers used in reclamation	2	2	4	2	2
Scraper size (cubic yards)	44	44	31	44	31
Scrapers used in reclamation	3	3	5	2	3
Minimum acceptable selling price ($)	16.65	15.33	18.27	13.56	16.19
Topsoiling cost ($)					
per ton of coal	.734	.750	1.003	.502	.608
per acre disturbed	4,159	3,885	3,737	3,827	3,642
Grading cost ($)					
per ton of coal	.532	.546	.785	.390	.420
per acre disturbed	3,016	2,830	2,924	2,972	2,516
Revegetation cost ($)					
per ton of coal	.141	.149	.184	.120	.137
per acre disturbed	800	771	687	913	818
Total reclamation cost ($)					
per ton of coal	1.407	1.445	1.973	1.012	1.164
per acre disturbed	7,975	7,486	7,348	7,711	6,976
percent of minimum price	8.45	9.43	10.80	7.46	7.19

Region	Missouri 5	Oklahoma 5	Montana 8	Wyoming 8
Assumptions				
Annual production (million tons)	1	1	5	5
Overburden depth (feet)	45	35	44	92
Coal-seam thickness (feet)	2.0	1.5	23.3	32.2
Coal density (tons per acre foot)	1,800	1,800	1,770	1,770