

**TITLE 19        NATURAL RESOURCES AND WILDLIFE**  
**CHAPTER 8      COAL MINING**  
**PART 10        REQUIREMENTS FOR PERMITS FOR SPECIAL CATEGORIES OF MINING**

**19.8.10.1        ISSUING AGENCY:** New Mexico Coal Surface Mining Commission  
[19.8.10.1 NMAC - N, 9-29-2000]

**19.8.10.2        SCOPE:** All persons subject to the New Mexico Surface Mining Act, NMSA 1978, Sections 69-25A-1 et. Seq. (1979)  
[19.8.10.2 NMAC - N, 9-29-2000]

**19.8.10.3        STATUTORY AUTHORITY:** NMSA 1978, Sections 69-25A-1 et. seq. (1979)  
[19.8.10.3 NMAC - N, 9-29-2000]

**19.8.10.4        DURATION:** Permanent  
[19.8.10.4 NMAC - N, 9-29-2000]

**19.8.10.5        EFFECTIVE DATE:** November 29, 1997, unless a later date is cited at the end of a section.  
[19.8.10.5 NMAC - N, 9-29-2000]

**19.8.10.6        OBJECTIVE:** The objective of Parts 1 - 35 of Chapter 8 is to establish regulations to implement the New Mexico Surface Mining Act as directed in NMSA 1978, Section 69-25A-5 (1979). These regulations are intended to ensure proper reclamation through permitting for operations subject to the New Mexico Surface Mining Act, in accordance with provisions and standards outlined in the New Mexico Surface Mining Act.  
[19.8.10.6 NMAC - N, 9-29-2000; A, 1-15-2002]

**19.8.10.7        DEFINITIONS: [RESERVED]**  
[19.8.10.7 NMAC - N, 9-29-2000]  
[Definitions for this part can be found in 19.8.1.7 NMAC]

**19.8.10.8 - 19.8.10.999 [RESERVED]**  
[19.8.10.8 - 19.8.10.999 NMAC - N, 9-29-2000]

**19.8.10.1000     EXPERIMENTAL PRACTICES MINING:**

**A.** Each person who desires to conduct an experimental practice shall submit a permit application for the approval of the director and the director of the office of surface mining. The permit application shall contain appropriate descriptions, maps, plans and data which show:

- (1) the nature of the experimental practice;
- (2) how use of the experimental practice:
  - (a) encourages advances in mining and reclamation technology, or
  - (b) allows a postmining land use for industrial, commercial, residential, or public use

(including recreational facilities), on an experimental basis, when the results are not otherwise attainable under the act and 19.8 NMAC;

(3) that the mining and reclamation operations proposed for using an experimental practice are not larger or more numerous than necessary to determine the effectiveness and economic feasibility of the experimental practice;

(4) that the experimental practice:

- (a) is potentially more or at least as environmentally protective, during and after the proposed mining and reclamation operations, as those required under 19.8.19 through 19.8.28 NMAC and 19.8 NMAC; and
- (b) will not reduce the protection afforded public health and safety below that provided by the requirements of 19.8.19 through 19.8.28 NMAC and 19.8 NMAC;

(5) that the applicant will conduct special monitoring with respect to the experimental practice during and after the operations involved; the monitoring program shall:

(a) insure the collection and analysis of sufficient and reliable data to enable the director and the regional director of the office of surface mining to make adequate comparisons with other surface coal mining and reclamation operations employing similar experimental practices; and

(b) include requirements designed to identify, as soon as possible, potential risks to the environment and public health and safety from the use of the experimental practice.

**B.** Each application shall set forth the environmental protection performance standards of 19.8.19 through 19.8.28 NMAC which will be implemented in the event the objective of the experimental practice is a failure.

**C.** All experimental practices for which variances are sought shall comply with the public notice requirements of 19.8.11.1100 NMAC.

**D.** No permit authorizing an experimental practice shall be issued, unless the director first finds, in writing, upon the basis of both a complete application filed in accordance with the requirements of this section and the comments of the director of the office of surface mining that:

(1) the experimental practice meets all of the requirements of Paragraphs (1) through (5) of Subsection A of 19.8.10.1000 NMAC;

(2) the experimental practice is based on a clearly defined set of objectives which can reasonably be expected to be achieved; and

(3) the experimental practice has been specifically approved, in writing by the director of the office of surface mining;

(4) the permit contains conditions which specifically:

(a) limit the experimental practice authorized to that granted by the director and the director of the office of surface mining;

(b) impose enforceable alternative environmental protection requirements; and

(c) require the person to conduct the periodic monitoring, recording and reporting program set forth in the application, with such additional requirements as the director or the director of the office of surface mining may require.

**E.** Experimental practices granting variances from the special environmental protection performance standards of Section 69-25A-19 and 69-25A-20 NMSA 1978 of the act applicable to prime farmlands shall be approved only after consultation with U.S. department of agriculture natural resources conservation service.

**F.** Each permit which authorizes the use of an experimental practice shall be reviewed in its entirety by the director at a frequency set forth in the approved permit, but no less frequently than every 2 1/2 years. After review, the director shall, with consent of the director of the office of surface mining, require by order, supported by written findings, any reasonable revision or modification of the permit provisions necessary to ensure that the operations involved are conducted to protect fully the environment and public health and safety. Copies of the decision of the director shall be sent to the permittee and shall be subject to the provisions for administrative and judicial review of 19.8.12 NMAC.

**G.** Revisions or modifications to an experimental practice shall be processed in accordance with the requirements of 19.8.13.1301 NMAC and approved by the director. Any revisions which propose significant departures in the experimental practice shall, at a minimum, be subject to the requirements of 19.8.11 and 19.8.12 NMAC and to the concurrence by the director of the office of surface mining. Revisions that do not propose significant departures in the experimental practice shall not require concurrence by the director of the office of surface mining.

[11-29-97; 19.8.10.1000 NMAC - Rn, 19 NMAC 8.2.10.1000, 9-29-2000; A, 12-31-2007]

#### **19.8.10.1001 MOUNTAINTOP REMOVAL MINING:**

**A.** Mountaintop removal mining means surface mining activities, where the mining operation removes an entire coal seam or seams running through the upper fraction of a mountain, ridge, or hill except as provided for in Subsection F of 19.8.25.2500 NMAC, by removing substantially all of the overburden off the bench and creating a level plateau or a gently rolling contour, with no highwalls remaining, and capable of supporting postmining land uses in accordance with the requirements of this section.

**B.** The director may issue a permit for mountaintop removal mining, without regard to the requirements of 19.8.20.2054 through 2058 NMAC, to restore the lands disturbed by such mining to their approximate original contour, if he first finds, in writing, on the basis of a complete application, that the following requirements are met:

(1) the proposed postmining land use of the lands to be affected will be an industrial, commercial, agricultural, residential, or public facility (including recreational facilities) use and, if:

(a) after consultation with the appropriate land-use planning agencies, if any, the proposed land use is deemed by the director to constitute an equal or better economic or public use of the affected land compared with the pre-mining use;

(b) the applicant demonstrates compliance with the requirements for acceptable alternative postmining land uses of 19.8.20.2075 NMAC;

(c) the proposed use would be compatible with adjacent land uses and existing state and local land use plans and programs; and

(d) the director has provided, in writing, an opportunity of not more than 60 days to review and comment on such proposed use to the governing body of general purpose government in whose jurisdiction the land is located and any state or federal agency which the director, in his discretion, determines to have an interest in the proposed use;

(2) the applicant has demonstrated that, in place of restoration of the land to be affected to the approximate original contour under 19.8.20.2054 through 2058 NMAC, the operation will be conducted in compliance with the requirements of 19.8.25 NMAC;

(3) the requirements of 19.8.25 NMAC are made a specific condition of the permit;

(4) all other requirements of the act and 19.8 NMAC are met by the proposed operations.

**C. Permit reviews.**

(1) Any permits incorporating a variance issued under this section shall be reviewed by the director to evaluate the progress and development of mining activities to establish that the operator is proceeding in accordance with the terms of the variance:

(a) within the sixth month preceding the third year from the date of its issuance;

(b) before each permit renewal; and

(c) not later than the middle of each permit term.

(2) Any review required under Paragraph (1) of Subsection C of 19.8.10.1001 NMAC need not be held if the permittee has demonstrated and the director finds, in writing, within three months before the scheduled review, that all operations under the permit are proceeding and will continue to be conducted in accordance with the terms of the permit and requirements of the act and 19.8 NMAC.

(3) The terms and conditions of a permit for mountaintop removal mining may be modified at any time by the director, if he determines that more stringent measures are necessary to insure that the operation involved is conducted in compliance with the requirements of the act and 19.8 NMAC.

[11-29-97; 19.8.10.1001 NMAC - Rn, 19 NMAC 8.2.10.1001, 9-29-2000; A, 12-31-2007]

**19.8.10.1002 STEEP SLOPE MINING:**

**A.** This section applies to any person who conducts or intends to conduct steep slope surface coal mining and reclamation operations, except:

(1) where an operator proposes to conduct surface coal mining and reclamation operations on flat or gently rolling terrain, leaving a plain or predominantly flat area, but on which an occasional steep slope is encountered as the mining operation proceeds;

(2) where a person obtains a permit under the provisions of 19.8.10.1001 NMAC; or

(3) to the extent that a person obtains a permit incorporating a variance under 19.8.10.1003 NMAC.

**B.** Any application for a permit for surface coal mining and reclamation operations covered by this section shall contain sufficient information to establish that the operations will be conducted in accordance with the requirements of 19.8.26.2601 NMAC.

**C.** No permit shall be issued for any operations covered by this section, unless the director finds, in writing, that in addition to meeting all other requirements of 19.8.5 through 19.8.13 NMAC, the operation will be conducted in accordance with the requirements of 19.8.26.2601 NMAC.

[11-29-97; 19.8.10.1002 NMAC - Rn, 19 NMAC 8.2.10.1002, 9-29-2000; A, 12-31-2007]

**19.8.10.1003 PERMIT INCORPORATING VARIANCES FROM APPROXIMATE ORIGINAL CONTOUR RESTORATION REQUIREMENTS FOR STEEP SLOPE MINING:**

**A.** The director may issue a permit for surface mining activities incorporating a variance from the requirement for restoration of the affected lands to their approximate original contour only if he first finds, in writing, on the basis of a complete application, that all of the following requirements are met:

(1) the applicant has demonstrated that the purpose of the variance is to make the lands to be affected within the permit area suitable for an industrial, commercial, residential, or public use postmining land use;

(2) the proposed use, after consultation with the appropriate land-use planning agencies, if any, constitutes an equal or better economic or public use;

(3) the applicant has demonstrated compliance with the requirements for acceptable alternative postmining land uses of Subsection C of 19.8.20.2075 NMAC;

- (4) the applicant has demonstrated that the watershed of lands within the proposed permit area and adjacent areas will be improved by the operations; the watershed will only be deemed improved if:
- (a) there will be a reduction in the amount of total suspended solids or other pollutants discharged to ground or surface waters from the permit area as compared to such discharges prior to mining, so as to improve public or private uses of the ecology or such waters; or, there will be reduced flood hazards within the watershed containing the permit area by reduction of the peak flow discharges from precipitation events or thaws;
  - (b) the total volume of flows from the proposed permit area, during every season of the year, will not vary in a way that adversely affects the ecology of any surface water or any existing or planned use of surface or ground water; and
  - (c) the environment department approves the plan.
- (5) the applicant has demonstrated that the owner of the surface of the lands within the permit area has knowingly requested, in writing, as part of the application, that a variance be granted; the request shall be made separately from any surface owner consent given for the operations under 19.8.7.703 NMAC and shall show an understanding that the variance could not be granted without the surface owner's request.
- (6) the applicant has demonstrated that the proposed operations will be conducted in compliance with the requirements of 19.8.26.2602 NMAC;
- (7) all other requirements of the act and 19.8 NMAC will be met by the proposed operations.
- B.** If a variance is granted under this section:
- (1) the requirements of 19.8.26.2602 NMAC shall be made a specific condition of the permit;
  - (2) the permit shall be specifically marked as containing a variance from approximate original contour.
- C.** Any permits incorporating a variance issued under this section shall be reviewed by the director to evaluate the progress and development of the mining activities, to establish that the operator is proceeding in accordance with the terms of the variance:
- (1) within the six month period preceding the third year from the date of its issuance;
  - (2) before each permit renewal; and
  - (3) not later than the middle of each subsequent permit term.
- D.** If the permittee demonstrates to the director at any of the times specified in Subsection C of 19.8.10.1003 NMAC that the operations involved have been and continue to be conducted in compliance with the terms and conditions of the permit, the requirements of the act and 19.8 NMAC, the review required at that time need not be held.
- E.** The terms and conditions of a permit incorporating a variance under this section may be modified at any time by the director, if he determines that more stringent measures are necessary to insure that the operations involved are conducted in compliance with the requirements of the act and 19.8 NMAC.
- F.** The director may only grant variances in accordance with this section if it has promulgated specific regulations to govern the granting of variances in accordance with the provisions of this section and additional and more stringent requirements as he deems to be necessary.  
[11-29-97; 19.8.10.1003 NMAC - Rn, 19 NMAC 8.2.10.1003, 9-29-2000; A, 12-31-2007]

**19.8.10.1004 PRIME FARMLANDS:**

- A.** Application contents for prime farmlands. If land within the proposed permit area is identified as prime farmland under 19.8.8.814 NMAC, the applicant shall submit a plan for the mining and restoration of the land. Each plan shall contain, at a minimum:
- (1) a soil survey of at least order 2 of the permit area according to the standards of the national cooperative soil survey and in accordance with the procedures set forth in U.S. department of agriculture handbooks 436 (soil taxonomy, 1975) and 18 (soil survey manual, 1951); the soil survey shall include a description of soil mapping units and a representative soil profile as determined by the U.S. natural resources conservation service, including, but not limited to, soil-horizon depths, pH, and the range of soil densities for each prime farmland soil unit within the permit area; other representative soil profile descriptions from the locality, prepared according to the standards of the national cooperative soil survey, may be used if their use is approved by the state conservationist, U.S. natural resources conservation service; the director may request the operator to provide information on other physical and chemical soil properties as needed to make a determination that the operator has the technological capability to restore the prime farmland within the permit area to the soil-reconstruction standards of 19.8.24 NMAC;
  - (2) the location of areas to be used for the separate stockpiling of the soil and plans for soil stabilization before redistribution;

(3) if applicable, documentation, such as agricultural school studies or other scientific data from comparable areas, that supports the use of other suitable material, instead of the A, B, or C soil horizon, to obtain on the restored area equivalent or higher levels of yield as non-mined prime farmlands in the surrounding area under equivalent levels of management;

(4) plans for seeding or cropping the final graded disturbed land and the conservation practices to be used to adequately control erosion and sedimentation and restoration of an adequate soil moisture regime, during the period from completion of regrading until release of the performance bond or equivalent guarantee under 19.8.14 NMAC; proper adjustments for seasons must be proposed so that final graded land is not exposed to erosion during seasons when vegetation or conservation practices cannot be established due to weather conditions;

(5) available agricultural school studies or other scientific data for areas with comparable soils, climate, and management (including water management) that demonstrate that the proposed method of reclamation will achieve, within a reasonable time, equivalent or higher levels of yield after mining as existed before mining;

(6) current estimated yields under a proper level of management for each soil map unit from the USDA for each crop to be used in determining success of revegetation (19.8.24.2404 NMAC);

(7) in all cases, soil productivity for prime farmlands shall be returned to equivalent levels of yield as non-mined land of the same soil type in the surrounding area under equivalent management practices as determined from the soil survey performed pursuant to Paragraph (1) of Subsection A of 19.8.10.1004 NMAC.

**B.** Consultation with secretary of agriculture. Before any permit is issued for areas that include prime farmlands, the director shall consult with the U.S. secretary of agriculture. The U.S. secretary of agriculture shall provide for review and comment of the proposed method of soil reconstruction in the plan submitted under Subsection A of 19.8.10.1004 NMAC. If the U.S. secretary of agriculture considers those methods to be inadequate, he or she shall suggest revisions resulting in more complete and adequate reconstruction. The U.S. secretary of agriculture has assigned his responsibilities under this section to the administrator of the U. S. natural resources conservation service. The natural resources conservation service shall carry out consultation and review through the state conservationist located in each state.

**C.** Issuance of permit. A permit for the mining and reclamation of prime farmland may be granted by the director, if he first finds, in writing, upon the basis of a complete application, that:

(1) the approved proposed postmining land use of these prime farmlands will be cropland;

(2) the permit incorporates as specific conditions the contents of the plan submitted under Subsection A of 19.8.10.1004 NMAC, after consideration of any revisions to that plan suggested by the U.S. secretary of agriculture under Subsection B of 19.8.10.1004 NMAC;

(3) the applicant has the technological capability to restore the prime farmland, within a reasonable time, to equivalent or higher levels of yield as non-mined prime farmland in the surrounding area under equivalent levels of management; and

(4) the proposed operations will be conducted in compliance with the requirements of 19.8.24 NMAC and other environmental protection performance and reclamation standards for mining and reclamation of prime farmland of the act and 19.8 NMAC.

[11-29-97; 19.8.10.1004 NMAC - Rn, 19 NMAC 8.2.10.1004, 9-29-2000; A, 12-31-2007]

### **19.8.10.1005 VARIANCES FOR DELAY IN CONTEMPORANEOUS RECLAMATION REQUIRED IN COMBINED SURFACE AND UNDERGROUND MINING OPERATIONS:**

**A.** Application contents for variances. Any person who desires to obtain a variance under this section shall file with the director complete applications for both the surface mining activities and underground mining activities which are to be combined. The mining and reclamation operation plans for these permits shall contain appropriate narratives, maps and plans, which:

(1) show why the proposed underground mining activities are necessary or desirable to assure maximum practical recovery of coal;

(2) show how multiple future disturbances of surface lands or waters will be avoided;

(3) identify the specific surface areas for which a variance is sought and the particular sections of the act and 19.8 NMAC from which a variance is being sought;

(4) show how the activities will comply with 19.8.21 NMAC and other applicable requirements of the act and 19.8 NMAC;

(5) show why the variance sought is necessary for the implementation of the proposed underground mining activities;

(6) provide an assessment of the adverse environmental consequences and damages, if any, that will result if the reclamation of surface mining activities is delayed; and

(7) show how off-site storage of spoil will be conducted to comply with 19.8.20.2034 through 2037 NMAC, the requirements of the act and 19.8 NMAC.

**B.** Issuance of permit. A permit incorporating a variance under this section may be issued by the director, if he first finds, in writing, upon the basis of a complete application filed in accordance with this section, that:

- (1) the applicant has presented, as part of the permit application, specific, feasible plans for the proposed underground mining activities;
- (2) the proposed underground mining activities are necessary or desirable to assure maximum practical recovery of the mineral resource and will avoid multiple future disturbances of surface land or waters;
- (3) the applicant has satisfactorily demonstrated that the applications for the surface mining activities and underground mining activities conform to the requirements of the act and 19.8 NMAC and that all other permits necessary for the underground mining activities have been issued by the appropriate authority;
- (4) the surface area of surface mining activities proposed for the variance have been shown by the applicant to be necessary for implementing the proposed underground mining activities;
- (5) no substantial adverse environmental damage, either on-site or off-site, will result from the delay in completion of reclamation otherwise required by Paragraph (16) of Subsection B of Section 69-25A-19 NMSA 1978 of the act, 19.8.20 NMAC and 19.8 NMAC;
- (6) the operations will, insofar as a variance is authorized, be conducted in compliance with the requirements of 19.8.21 NMAC and 19.8 NMAC;
- (7) provisions for off-site storage of spoil will comply with the requirements of Paragraph (22) of Subsection B of Section 69-25A-19 NMSA 1978 of the act, 19.8.20.2034 through 2037 NMAC and 19.8 NMAC;
- (8) liability under the performance bond required to be filed by the applicant with the director pursuant to 19.8.14 NMAC, the act and 19.8 NMAC shall be for the duration of the underground mining activities and until all requirements of 19.8.14 NMAC and the act and 19.8 NMAC have been complied with; and
- (9) the permit for the surface mining activities contains specific conditions:
  - (a) delineating the particular surface areas for which a variance is authorized;
  - (b) identifying the particular requirements of 19.8.21 NMAC, the act and 19.8 NMAC which are to be complied with, in lieu of the otherwise applicable provisions of Subsection B of Section 69-25A-19 NMSA 1978 of the act, 19.8.20 NMAC and 19.8 NMAC; and
  - (c) providing a detailed schedule for compliance with the particular requirements of 19.8.21 NMAC, the act and 19.8 NMAC identified under Subparagraph (b) of Paragraph (9) of Subsection B of 19.8.10.1005 NMAC.

**C.** Review of permits containing variances. Variances granted under permits issued under this section shall be reviewed by the director no later than 3 years from the dates of issuance of the permit and any permit renewals.

[11-29-97; 19.8.10.1005 NMAC - Rn, 19 NMAC 8.2.10.1005, 9-29-2000; A, 12-31-2007]

#### **19.8.10.1006 SURFACE COAL MINING AND RECLAMATION OPERATIONS ON AREAS OR ADJACENT TO AREAS INCLUDING ALLUVIAL VALLEY FLOORS:**

**A.** Alluvial valley floor determination.

(1) Before applying for a permit to conduct, or before conducting surface coal mining and reclamation operations within a valley holding a stream or in a location where the adjacent area includes any stream, the applicant shall either affirmatively demonstrate, based on available data, the presence of an alluvial valley floor, or submit to the director the results of a field investigation of the proposed permit area and adjacent area. The field investigations shall include sufficiently detailed geologic, hydrologic, land use, soils and vegetation studies on areas required to be investigated by the director, after consultation with the applicant, to enable the director to make an evaluation regarding the existence of the probable alluvial valley floor in the proposed permit area or adjacent area and to determine which areas, if any, require more detailed study in order to allow the director to make a final determination regarding the existence of an alluvial valley floor. Studies performed during the investigation by the applicant or subsequent studies as required of the applicant by the director shall include an appropriate combination, adapted to site-specific conditions, of:

(a) mapping of unconsolidated stream-laid deposits holding streams including, but not limited to, geologic maps of unconsolidated deposits, and stream-laid deposits, maps of streams, delineation of surface watersheds and directions of shallow ground water flows through and into the unconsolidated deposits, topography showing local and regional terrace levels, and topography of terraces, flood plains and channels showing surface drainage patterns;

(b) mapping of all lands included in the area in accordance with this paragraph and subject to agricultural activities, showing the area in which different types of agricultural lands, such as flood irrigated lands, pasture lands and undeveloped rangelands exist, and accompanied by measurements of vegetation in terms of productivity and type;

(c) mapping of all lands that are currently or were historically flood irrigated, showing the location of each diversion structure, ditch, dam and related reservoir, irrigated land, and topography of those lands;

(d) documentation that areas identified in this paragraph are, or are not, subirrigated, based on ground water monitoring data, representative water quality, soil moisture measurements, and measurements of rooting depth, soil mottling, and water requirements of vegetation;

(e) documentation, based on representative sampling, that areas identified under this paragraph are, or are not, flood irrigable by a prudent person for sustained agricultural activities, based on stream-flow, water quality, water yield, soils measurements, and topographic characteristics;

(f) analysis of a series of aerial photographs, including color infrared imagery flown at a time of year to show any late summer and fall differences between upland and valley floor vegetative growth and of a scale adequate for reconnaissance identification of areas that may be alluvial valley floors.

(2) Based on the investigations conducted under Paragraph (1) of Subsection A of 19.8.10.1006 NMAC, the director shall make a determination of the extent of any alluvial valley floors within the study area and whether any stream in the study area may be excluded from further consideration as lying within an alluvial valley floor. The director shall determine that an alluvial valley floor exists if he finds that:

(a) unconsolidated stream-laid deposits holding streams are present; and

(b) there is sufficient water to support agricultural activities as evidenced by the existence of flood irrigation in the area in question or its recent historical use; the capability of an area to be flood irrigated by a prudent person for sustained agricultural activities, based on stream-flow water yield, soils, water quality, and topography; or sub-irrigation of the lands in question, derived from the ground water system of the valley floor.

(3) The requirements of this paragraph shall not apply to applicants who affirmatively establish, to the satisfaction of the director, that the proposed operation shall not affect any area suggested to be an alluvial valley floor which is located outside the permit area or that the proposed operation will not be adjacent to any area suggested to be an alluvial valley floor. For the purposes of this paragraph, the director may rely on information submitted by the applicant which pertains only to the permit area if it establishes the existence of an effective buffer zone between the operation and the area in question so as to establish that such area will not be affected, notwithstanding its possible characterization as an alluvial valley floor.

**B.** Application contents for operations affecting designated alluvial valley floors.

(1) If land within the proposed permit area or adjacent area is identified as an alluvial valley floor and the proposed mining operation may affect an alluvial valley floor or waters that supply alluvial valley floors, the applicant shall submit a complete application for the proposed mining and reclamation operations, to be used by the director together with other relevant information, including the information required by Subsection A of 19.8.10.1006 NMAC, as a basis for approval or denial of the permit. The complete application shall include detailed surveys and baseline data required by the director for a determination of:

(a) the characteristics of the alluvial valley floor which are necessary to preserve the essential hydrologic functions during and after mining;

(b) the significance of the area to be affected to agricultural activities;

(c) whether the operation will cause, or presents an unacceptable risk of causing, material damage to the quantity or quality of surface or ground waters that supply the alluvial valley floor;

(d) the effectiveness of proposed reclamation with respect to requirements of the act and 19.8 NMAC; and

(e) specific environmental monitoring required to measure compliance with 19.8.23 NMAC during and after mining and reclamation operations.

(2) Information required under this paragraph shall include, but not be limited to:

(a) geologic data, including geologic structure, and surficial geologic maps, and geologic cross-sections;

(b) soils and vegetation data, including a detailed soil survey and chemical and physical analyses of soils, a vegetation map and narrative descriptions of quantitative and qualitative surveys, and land use data, including an evaluation of crop yields;

(c) surveys and data required under this paragraph for areas designated as alluvial valley floors because of their flood irrigation characteristics shall also include, at a minimum, surface hydrologic data, or

extrapolation of such data, including streamflow, runoff, sediment yield, and water quality analyses describing seasonal variations field geomorphic surveys and other geomorphic studies;

(d) surveys and data required under this paragraph for areas designated as alluvial valley floors because of their subirrigation characteristics, shall also include, at a minimum, geohydrologic data, or extrapolation of such data, including observation well establishment for purposes of water level measurements, ground water contour maps, testing to determine aquifer characteristics that affect waters supplying the alluvial valley floors, well and spring inventories, and water quality analyses describing seasonal variations and physical and chemical analysis of overburden to determine the effect of the proposed mining and reclamation operations on water quality and quantity;

(e) plans showing how the operation will avoid, during mining and reclamation, interruption, discontinuance or preclusion of farming on the alluvial valley floors unless the pre-mining land use has been undeveloped rangeland which is not significant to farming and will not materially damage the quantity or quality of water in surface and ground water systems that supply alluvial valley floors;

(f) maps showing farms that could be affected by the mining and, if any farm includes an alluvial valley floor, statements of the type and quantity of agricultural activity performed on the alluvial valley floor and its relationship to the farm's total agricultural activity including an economic analysis; and

(g) such other data as the director may require.

(3) The surveys required by this paragraph should identify those geologic, hydrologic, and biologic characteristics of the alluvial valley floor necessary to support the essential hydrologic functions of an alluvial valley floor. Characteristics which support the essential hydrologic functions and which must be evaluated in a complete application include, but are not limited to:

(a) characteristics supporting the function of collecting water which include, but are not limited to:

(i) the amount and rate of runoff and a water balance analysis, with respect to rainfall, evapotranspiration, infiltration and ground water recharge;

(ii) the relief, slope, and density of the network of drainage channels;

(iii) the infiltration, permeability, porosity and transmissivity of unconsolidated deposits of the valley floor that either constitute the aquifer associated with the stream or lie between the aquifer and the stream; and

(iv) other factors that affect the interchange of water between surface streams and ground water systems, including the depth to ground water, the direction of ground water flow, the extent to which the stream and associated alluvial ground water aquifers provide recharge to, or are recharged by bedrock aquifers;

(b) characteristics supporting the function of storing water which include, but are not limited to:

(i) surface roughness, slope, and vegetation of the channel, flood plain, and low terraces that retard the flow of surface waters;

(ii) porosity, permeability, water-holding capacity, saturated thickness and volume of aquifers associated with streams, including alluvial aquifers, perched aquifers, and other water bearing zones found beneath valley floors; and

(iii) moisture held in soils or the plant growth medium within the alluvial valley floor, and the physical and chemical properties of the subsoil that provide for sustained vegetation growth or cover during extended periods of low precipitation;

(c) characteristics supporting the function of regulating the flow of water which include; but are not limited to:

(i) the geometry and physical character of the valley, expressed in terms of the longitudinal profile and slope of the valley and the channel, the sinuosity of the channel, the cross-section, slopes and proportions of the channels, flood plains and low terraces, the nature and stability of the stream banks and the vegetation established in the channels and along the stream banks and flood plains;

(ii) the nature of surface flows as shown by the frequency and duration of flows of representative magnitude including low flows and floods; and

(iii) the nature of interchange of water between streams, their associated alluvial aquifers and any bedrock aquifers as shown by the rate and amount of water supplied by the stream to associated alluvial and bedrock aquifers (i.e., recharge) and by the rates and amounts of water supplied by aquifers to the stream (i.e., baseflow);

(d) characteristics which make water available and which include, but are not limited to, the presence of land forms including flood plains and terraces suitable for agricultural activities.

**C.** Alluvial valley floor impact assessment and written findings.

(1) No permit or permit revision application for surface coal mining and reclamation operations shall be approved by the director, unless the application demonstrates and the director finds in writing, on the basis of information set forth in the application that:

(a) the proposed operations would not interrupt, discontinue or preclude farming on an alluvial valley floor, unless the premining land use has been undeveloped rangeland which is not significant to farming on the alluvial valley floor, or unless the area of an affected alluvial valley floor is small and provides, or may provide, negligible support for production of one or more farms; provided, however, this paragraph does not apply to those lands which were identified in a reclamation plan approved by the New Mexico coal surface mining commission prior to August 3, 1977, for any surface coal and reclamation operation that, in the year preceding August 3, 1977:

(i) produced coal in commercial quantities and was located within or adjacent to alluvial valley floors; or

(ii) obtained specific permit approval by the New Mexico coal surface mining commission to conduct surface coal mining and reclamation operations within an alluvial valley floor;

(b) the proposed operations would not materially damage the quantity and quality of water in surface and underground water systems that supply those alluvial valley floors or portions of alluvial valley floors which are:

(i) included in Subparagraph (a) of Paragraph (1) of Subsection C of 19.8.10.1006 NMAC; or

(ii) outside the permit area of an existing or proposed surface coal mining operation;

(c) the proposed operations would be conducted in accordance with 19.8.23 NMAC and all other applicable requirements of the act and 19.8 NMAC; and

(d) any change in the land use of the lands covered by the proposed permit area from its premining use in or adjacent to alluvial valley floors will not interfere with or preclude the reestablishment of the essential hydrologic functions of the alluvial valley floor.

(2) The significance of the impact of the proposed operations on farming will be based on the relative importance of the vegetation and water of the developed grazed or hayed alluvial valley floor area to the farm's production, or any more stringent criteria established by the director as suitable for site-specific protection of agricultural activities in alluvial valley floors.

(3) Criteria for determining whether a surface coal mining operation will materially damage the quantity or quality of waters, include, but are not limited to:

(a) potential increases in the concentration of total dissolved solids of waters supplied to an alluvial valley floor, as measured by using current standard methods. Such concentrations shall not exceed threshold values at which crop yields decrease according to documentation in current scientific publications, unless the applicant demonstrates compliance with Subparagraph (b) of Paragraph (3) of Subsection C of 19.8.10.1006 NMAC;

(b) potential increases in the concentration of total dissolved solids of waters supplied to an alluvial valley floor in excess of those incorporated by reference in Subparagraph (a) of Paragraph (3) of Subsection C of 19.8.10.1006 NMAC shall not be allowed unless the applicant demonstrates, through testing related to the production of crops grown in the locality, that the proposed operations will not cause increases that will result in crop yield decreases;

(c) for types of vegetation not listed in scientific publications, consideration of observed correlation between total dissolved solid concentrations in water and crop yield declines shall be taken into account along with the accuracy of the correlations;

(d) potential increases in the average depth to water saturated zones (during the growing season) located within the root zone of the alluvial valley floor that would reduce the amount of subirrigation land compared to premining conditions;

(e) potential decreases in surface flows that would reduce the amount of irrigable land compared to premining conditions; and

(f) potential changes in the surface or ground water systems that reduce the area available to agriculture as a result of flooding or increased saturation of the root zone.

(4) For the purposes of this paragraph, a farm is one or more land units on which agricultural activities are conducted. A farm is generally considered to be the combination of land units with acreage and boundaries in existence prior to August 3, 1977, or, if established after August 3, 1977, with those boundaries based on enhancement of the farm's agricultural productivity and not related to surface coal mining operations.

[11-29-97; 19.8.10.1006 NMAC - Rn, 19 NMAC 8.2.10.1006, 9-29-2000; A, 12-31-2007]

**19.8.10.1007 AUGERING:**

**A.** This section applies to any person who conducts or intends to conduct surface coal mining and reclamation operations utilizing augering operations.

**B.** Any application for a permit for operations covered by this section shall contain, in the mining and reclamation plan, a description of the augering methods to be used and the measures to be used to comply with 19.8.22 NMAC and demonstrate to the director that auger mining is the best method to recover the maximum coal resource.

**C.** No permit shall be issued for any operations covered by this section unless the director finds, in writing, that in addition to meeting all other applicable requirements of 19.8.5 through 19.8.13 NMAC, the operation will be conducted in compliance with 19.8.22 NMAC.

[11-29-97; 19.8.10.1007 NMAC - Rn, 19 NMAC 8.2.10.1007, 9-29-2000]

**19.8.10.1008 COAL PROCESSING PLANTS OR SUPPORT FACILITIES NOT LOCATED WITHIN THE PERMIT AREA OF A SPECIFIED MINE:**

**A.** This section applies to any person who conducts or intends to conduct surface coal mining and reclamation operations utilizing coal processing plants or support facilities not within a permit area of a specific mine. Any person who operates such a processing plant or support facility shall have obtained a permit from the director in accordance with the requirements of this section.

**B.** Any application for a permit for operations covered by this section shall contain in the mining and reclamation plan, specific plans, including descriptions, maps and cross-sections of the construction, operation, maintenance and removal of the processing plants and associated support facilities. The plan shall demonstrate that those operations will be conducted in compliance with 19.8.27 NMAC.

**C.** No permit shall be issued for any operation covered by this section, unless the director finds, in writing, that, in addition to meeting all other applicable requirements of 19.8.5 through 19.8.13 NMAC, the operations will be conducted in compliance with the requirements of 19.8.27 NMAC.

[11-29-97; 19.8.10.1008 NMAC - Rn, 19 NMAC 8.2.10.1008, 9-29-2000]

**19.8.10.1009 IN SITU PROCESSING ACTIVITIES:**

**A.** This section applies to any person who conducts or intends to conduct surface coal mining and reclamation operations utilizing in situ processing activities.

**B.** Any application for a permit for operations covered by this section shall be made according to all requirements of 19.8.5 through 19.8.13 NMAC applicable to underground mining activities. In addition, the mining and reclamation operations plan for operations involving in situ processing activities shall contain information establishing how those operations will be conducted in compliance with the requirements of 19.8.28 NMAC, including:

(1) delineation of proposed holes and wells and production zone for approval of the director;  
(2) specifications of drill holes and casings proposed to be used;  
(3) a plan for treatment, confinement or disposal of all acid-forming, toxic-forming or radioactive gases, solids, or liquids constituting a fire, health, safety or environmental hazard caused by the mining and recovery process; and

(4) plans for monitoring surface and ground water and air quality, as required by the director.

**C.** No permit shall be issued for operations covered by this section, unless the director first finds, in writing, upon the basis of a complete application made in accordance with Subsection B of 19.8.10.1009 NMAC, that the operation will be conducted in compliance with all requirements of 19.8.5 through 19.8.13 NMAC relating to underground mining activities, and 19.8.20 and 19.8.28 NMAC.

[11-29-97; 19.8.10.1009 NMAC - Rn, 19 NMAC 8.2.10.1009, 9-29-2000]

**HISTORY OF 19.8.10 NMAC:**

**Pre-NMAC History:**

The material in Part 10 was derived from that previously filed with the State Records Center and Archives under: SB 73-1 Regulations of the State of New Mexico Coal Surfacing Commission, filed 1-10-73 and its amendment filed 8-4-76

SB 78-1 (Rule 78-1) Regulations of the State of New Mexico Coal Surfacing Commission, filed 8-31-78

SB 79-1 (Rule 79-1) New Mexico Coal Surfacing Regulations, filed 7-11-79

CSMC Rule 80-1 (Rule 80-1) Surface Coal Mining Regulations, filed 9-24-80; and all amendments to CSMC Rule 80-1, filed 7-29-82, 11-10-83, 3-5-84, 7-19-84, filed 8-6-84, 8-23-84, 3-28-89, 6-15-90, 9-18-90, 2-15-91, 5-8-91, 8-26-91, 10-4-91, 7-28-92, 1-25-93, 11-1-94, 3-10-95, 4-12-95, 12-21-95.

**History of Repealed Material: [RESERVED]**

**Other History:**

Renumbered and reformatted CSMC Rule 80-1, Surface Coal Mining Regulations, filed 9-24-80 to 19 NMAC 8.2, Coal Surface Mining, filed 11-13-97.

Renumbered 19 NMAC 8.2 Subpart 10 Requirements for Permits for Special Categories of Mining, filed 11-13-97, to 19.8.10 NMAC Requirements for Permits for Special Categories of Mining, effective 09-29-2000.