

Wyoming Administrative Rules

**Environmental Quality, Dept. of**

Land Quality - Non Coal

Chapter 3: Environmental Protection Performance Standards

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## CHAPTER 3

### NONCOAL MINE

#### ENVIRONMENTAL PROTECTION PERFORMANCE STANDARDS

Section 1. **General.** This Chapter sets forth the environmental protection performance standards applicable to all mining operations. No mining operation shall be conducted except in compliance with the requirements hereof.

Section 2. **General Environmental Protection Performance Standards.**

(a) Land uses.

(i) Reclamation shall restore the land to a condition equal to or greater than the "highest previous use." The land, after reclamation, must be suitable for the previous use which was of the greatest economic or social value to the community area, or must have a use which is of more economic or social value than all of the other previous uses.

(ii) Operators are required to restore wildlife habitat, whenever the Administrator determines that this restoration is possible, on affected land in a manner commensurate with or superior to habitat conditions which existed before the land became affected, unless the land is private and the proposed use is for a residential or agricultural purpose which may preclude its use as wildlife habitat.

(iii) Water impoundments used for recreational purposes shall be constructed in accordance with the statutes and (g) of this Section. Recreational lands, other than water impoundments, represent changes in the land which may or may not be suitable for wildlife habitat.

(b) Backfilling, grading and contouring.

(i) Backfilling, grading, and contouring of affected land shall be accomplished by one or more of the following as detailed in the approved reclamation plan:

(A) Reestablishment of the contour of the land in a manner consistent with the proposed future use of the land;

(B) Reestablishment of adequate through drainage if such a provision is necessary to prevent pollution or diminution of the quantity and quality of the surface water and groundwater;

(C) Contouring of affected land to blend in with the topography of the surrounding terrain unless so doing would create an erosion problem or a hazard to man or beast; and

(D) Creation of water impoundments for a use certified in an approved plan in accordance with the statutes and (g) of this Section.

(ii) Soft rock surface mining.

(A) If the reclamation plan does not provide for a permanent water impoundment, the final pit area shall be backfilled, graded, compacted and contoured to the extent necessary to return the land to the use specified in the approved plan. In preparation of slope specifications in the plan, the operator shall consider an average of the measured slopes in the immediate area of the proposed mine site. Slopes in the reclaimed area shall approximate the premining slopes. Slopes greater than the approximate premining slopes may be approved if the operator can demonstrate to the satisfaction of the Administrator that returning the mined area to a slope equal to or less than the approximate premining slopes would create an unwarranted increase in the amount of affected lands or that greater slopes would enhance the postmining land use. Individual slope measurements, locations of the measurements, and the average measurement shall be submitted with the reclamation plan. In determinations of the approximate premining slope, the Land Quality Division may make an independent slope survey. All backfilling, grading, and contouring will be done in such a manner so as to preserve the original drainage or provide for approved adequate substitutes. No depressions to accumulate water will be permitted unless approved in the reclamation plan as being consistent with the proposed future use of the land.

(B) Terraces or benches may be used only when it can be shown to the Administrator's satisfaction that other methods of contouring will not provide the required result. If terracing is proposed, detailed plans indicating the dimensions and design of the terraces, check dams, any erosion prevention techniques, and slopes of the terraces and their intervals will be required.

(C) If the reclamation plan provides for a permanent water impoundment and this use has been approved according to the requirements outlined in the Act and these regulations, the exposed pit areas must be sloped, graded, and contoured so as to blend in with the topography of the surrounding terrain and provide for access and revegetation. Riprapping where necessary to prevent erosion will be required. Sloping requirements will be as described above. Under certain conditions wherein it can be demonstrated to the Administrator's satisfaction that the pitwall can be stabilized by terracing or other techniques it may be permissible to leave not more than one-half of a proposed shoreline composed of the stabilized pitwall. The remaining portion of the shoreline must be graded and contoured so as to provide access and blend in with the topography of the surrounding terrain. In the event that a partial pitwall is proposed as final reclamation, the operator must submit a detailed explanation of the techniques to be used to establish the stability of the pitwalls in his reclamation plan. At the Administrator's discretion, a study of the proposed pitwall stabilization techniques may be required from an independent engineering company for purposes of verifying the effectiveness of the proposed stabilization techniques. The Land Quality Division will determine the acceptability of the proposed stabilization techniques based on this information and an on-site inspection.

(D) Highwall retention may be considered on a case-by-case basis for enhanced wildlife habitat. The Wyoming Game and Fish Department shall be consulted by the applicant

for need and design of the land form. Any approval under this paragraph shall be based on a demonstration of safety, stability, environmental protection, and equal or better land-use considerations.

(iii) Hard rock surface mining.

(A) If the reclamation plan does not provide for a permanent water impoundment, all disturbed areas shall be returned to a condition suitable for the use specified in the approved plan. The final pit area shall be backfilled, graded, and contoured as much as possible considering the physical characteristics of the land and rock materials. Whenever possible, pitwalls shall be reduced, graded, and contoured to blend in with the topography of the surrounding terrain. Where it is not possible to reduce pitwalls, based on the character of the rock encountered or economic considerations, the pitwalls must be stabilized by terracing or other acceptable engineering techniques. Plans for pitwall stabilization shall be submitted in compliance with procedures specified. The base of the pits which will be partially surrounded by highwalls must be graded, contoured and prepared for topsoil placement. Graded and contoured access to the base of such pits must be provided.

(B) If the reclamation plan provides for a permanent water impoundment and this use has been approved, all sources of possible water contamination within the pit must be covered with overburden or stabilized in such a manner so as not to contaminate the water in the resulting impoundment. Where possible, based on the characteristics of the rock, nature and extent of the mining operation, pitwalls extending above the projected water level within the pit area must be reduced, graded and contoured so as to blend in with the topography of the surrounding terrain. Where it is not possible to reduce pitwalls, based on the character of the rock involved or economic feasibility of reducing the highwalls, the highwalls must be stabilized by terracing or other acceptable engineering techniques. Plans for pitwall stabilization must be submitted following the procedure as indicated in this Chapter. Graded and contoured access to the impoundment must be provided. Backfilling, grading and contouring of affected areas above the projected high water line that is not occupied by stabilized highwalls will be required when the physical land characteristics are such that this activity is possible.

(c) Topsoil, subsoil, overburden, and refuse.

(i) Topsoil.

(A) All topsoil or approved surface material shall be removed from all areas to be affected in the permit area prior to these areas being affected unless otherwise authorized by the Administrator. The topsoil may be mixed with the subsoil but shall be segregated so as not to become mixed with spoil or waste material, stockpiled in the most advantageous manner and saved for reclamation purposes. The Administrator may authorize topsoil to remain on areas where minor disturbance will occur associated with construction and installation activities including, but not limited to, light-use roads, signs, utility lines, fences, monitoring stations and drilling provided that the minor disturbance will not destroy the protective vegetative cover, increase erosion, or adversely affect the soil resource.

(B) When topsoil is not promptly redistributed, the topsoil or approved surface material shall be stockpiled on stable areas within the permit area in such a manner so as to minimize wind and water erosion and unnecessary compaction. In order to accomplish this, the operator shall establish, through planting or other acceptable means, a quick growing cover of vegetation on the topsoil stockpiles. The topsoil shall also be protected from acid or toxic materials, and shall be preserved in a usable condition for sustaining vegetation when placed over affected land. Provided however, where long-term disturbance will occur, the Administrator may authorize the temporary distribution of topsoil to enhance stabilization of affected lands within the permit area. Where this is authorized, the Administrator shall find that the topsoil or subsoil capacity and productive capabilities are not diminished, that the topsoil is protected from erosion, and will be available for reclamation.

(C) Reclamation shall follow mining as soon as is feasible so as to minimize the amount of time topsoil must be stockpiled. Where topsoil has been stockpiled for more than one year, the operator may be required to conduct nutrient analyses to determine if soil amendments are necessary.

(D) Topsoil stockpiles shall be marked with a legible sign containing letters not less than six inches high on all approach roads to such stockpiles. Said signs shall contain the word "Topsoil" and shall be placed not more than 150 feet from any and all stockpiles of topsoil. Such signs must be in place at the time stockpiling is begun.

(E) Topsoil, or an approved substitute, shall be distributed at an approximate uniform depth on the surface of all lands affected consistent with the approved permit and the postmining land use.

(F) If abundant topsoil is present, and it is not all needed to accomplish the reclamation required in the approved reclamation plan, the Administrator may approve of use of this topsoil by this or another operator in another area for reclamation purposes.

(G) Trees, large rocks and other waste material which may hinder redistribution of topsoil shall be separated from the topsoil before stockpiling.

(ii) Subsoil.

(A) Except as provided in (B), all subsoil determined by field methods or chemical analysis to be suitable as a plant-growth medium shall be removed from all areas to be affected and handled in accordance with the topsoil requirements of this Section.

(B) Upon an adequate demonstration by the operator that all or a portion of the subsoil material is not needed to meet the revegetation and land use requirements of these regulations, the Administrator may authorize all or a portion of the subsoil to not be used for reclamation. The unused subsoil may then be regarded as overburden material and handled in accordance with the requirements of this Section.

(iii) Topsoil and subsoil substitutes.

(A) If insufficient suitable topsoil or subsoil is available for salvage or redistribution, then an operator may use selected overburden as a topsoil substitute. The operator shall demonstrate by analysis or test plots that the substitute material is suitable as an alternative material.

(B) Topsoil substitute stockpiles shall be segregated from topsoil and overburden piles and shall be identified as substitute material. Identification signs shall be placed not more than 150 feet from all stockpiles of substitute material. Such signs shall be in place at the time stockpiling is begun.

(C) If overburden is to be used in reclamation as a substitute for topsoil, all large rocks and other waste material which may hinder redistribution shall be separated before stockpiling.

(iv) Overburden, spoil and refuse.

(A) All overburden, spoil material and refuse shall be segregated from the topsoil and subsoil and stockpiled in such a manner to facilitate the earliest reclamation consistent with the approved reclamation plan.

(B) Except where diversions are authorized by these regulations, all overburden, spoil material, and refuse piles must be located to avoid blocking intermittent or perennial drainages and floodplains in order to minimize loss and spread of material due to water erosion. Ephemeral drainages may be blocked if environmentally sound methods for dealing with runoff control and sedimentation are approved by the Administrator.

(I) For temporary stockpiles, material should be replaced in pits as soon as possible consistent with the approved reclamation plan to minimize the amount of time material is stockpiled.

(II) If permanent overburden, spoil, or refuse piles have been approved by the Administrator, they shall be designed, graded and contoured so as to blend in with the topography of the surrounding terrain. Spoil material shall not be deposited on slopes that exceed 20 degrees, unless the operator demonstrates to the satisfaction of the Administrator that this material will be stable and can be revegetated as required by this Section. The slopes of all spoil areas must be designed so that they will be stabilized against wind and water erosion. After the grading and contouring of these stockpiles, topsoil or approved subsoil must be distributed over them in preparation for the revegetation procedure. Revegetation must be completed in accordance with requirements of this Chapter. A permanent drainage system must be established consistent with these regulations.

(C) All topsoil shall be removed from areas to be used for piling spoil material prior to the beginning of piling this material.

(D) The operator may be required to have analyses made of spoil material in order to determine if it will be a source of water pollution through reaction with leaching by surface water. If it is determined that this condition may exist, the operator shall describe proposed procedures for eliminating this condition.

(E) All overburden and spoil material that is determined to be toxic, acid-forming or will prevent adequate reestablishment of vegetation on the reclaimed land surface, unless such materials occur naturally on the land surface, must be properly disposed of during the mining operation.

(v) Management and final burial on the permit area of all industrial solid wastes generated by the operation (such as, but not limited to, grease, lubricants, paints, flammable liquids, garbage, trash, discarded mining machinery, lumber and other combustible materials) shall be in accordance with this Section and with provisions of the Solid Waste Management Rules and Regulations deemed appropriate by the Administrator.

(d) Revegetation.

(i) Revegetation of all affected lands shall be accomplished in a manner consistent with the approved reclamation plan and the proposed future use of the land.

(ii) Land which did not support vegetation prior to becoming affected land need not be revegetated unless subsoil or overburden from such affected land will support vegetation. The operator shall demonstrate to the Administrator's satisfaction that revegetation or reforestation is not possible if he seeks to proceed under the provisions of this subsection.

(iii) After backfilling, grading, and contouring and the replacement of topsoil, and/or approved substitutes, revegetation shall be commenced in such a manner so as to most efficiently accommodate the retention of moisture and control erosion on all affected lands to be revegetated. In addition, any fertilizer requirements as determined on the basis of previous analysis must be fulfilled.

(iv) Seeding which is accomplished by mechanical drilling shall be on the topographic contour, unless for safety reasons it is not practicable, or perpendicular to the prevailing wind on flat areas. Seeding of affected lands shall be conducted during the first normal period for favorable planting conditions after final preparation unless an alternative plan is approved. Any rills or gullies that would preclude successful establishment of vegetation or achievement of postmining land use shall be removed or stabilized. The species of vegetation to be used in revegetation efforts shall be described in the reclamation plan indicating the composition of seed mixtures and the amount of seed to be distributed on the area on a per acre basis. Seed types will depend on the climatic and soil conditions prevailing in the permit area and the proposed use of the land after reclamation. Species to be planted as permanent cover shall be self-renewing. Seeding rates will depend on seed types, climatic and soil conditions and the techniques to be used in seeding.

(v) Introduced, naturalized or non-indigenous native plant species, may be included in the approved seed mixture if they support the approved postmining land uses. The operator shall document, unless otherwise authorized by the Administrator, the suitability of these species using data from published literature, from experimental test plots, from on-site experience, or from other information sources.

(vi) The Administrator shall not release the entire bond of any operator until such time as revegetation is completed, if revegetation is the method of reclamation as specified in the operator's approved reclamation plan. Revegetation shall be deemed to be complete when: (1) the vegetation species of the reclaimed land are self-renewing under natural conditions prevailing at the site; (2) the total vegetation cover of perennial species (excluding noxious weed species) and any species in the approved seed mix is at least equal to the total vegetation cover of perennial species (excluding noxious weed species) on the area before mining; (3) the species diversity and composition are suitable for the approved postmining land use; and (4) the requirements in (1), (2) and (3) are achieved during one growing season, no earlier than the fifth full growing season on the reclaimed lands. The Administrator shall specify quantitative methods and procedures for determining whether equal total vegetation cover has been established and procedures for evaluating postmining species diversity and composition. The following options or an alternative success standard approved by the Administrator are available:

(A) The method utilizing control areas may be selected. If selected, the control areas shall be sampled for total vegetation cover and species diversity and composition in the same season that the area to be affected is sampled for baseline data. Quantitative premining and postmining vegetation data from the control areas shall be used to mathematically adjust premining affected area data for climatic change. Premining affected area total vegetation cover data will be directly compared by statistical procedures to data from the reclaimed vegetation type when evaluating revegetation success for final bond release. Species diversity and composition data will be qualitatively or quantitatively evaluated as determined by the Administrator;

(B) The method utilizing reference areas may be selected. If selected, the representativeness of the reference area is verified by a statistical comparison to the plant community that it typifies. Postmining total vegetation cover data from the reference area are directly compared by standard statistical procedures to total vegetation cover data from the reclaimed area when evaluating revegetation success for final bond release. Species diversity and composition data will be qualitatively or quantitatively evaluated as determined by the Administrator;

(C) Where the premining total vegetation cover and species diversity and composition data cannot be collected, or where the area to be affected is small and incidental to the operation, comparison areas may be selected. For purposes of this method, postmining qualitative and quantitative data from the comparison area are directly compared by procedures acceptable to the Administrator to data from the reclaimed lands when evaluating success of revegetation for final bond release;



(D) Without regard to the type of method selected, control, reference or comparison areas should be at least two acres in size, located in areas where they will not be affected by future mining, while serving their designated use, managed in a fashion which will not cause significant changes in the vegetation parameters of total vegetation cover and species diversity and composition and be representative of the postmining land use;

(E) If reforestation for commercial harvest is the method of revegetation, reforestation shall be deemed to be complete when a reasonable population density as established in the reclamation plan has been achieved, the trees have shown themselves capable of continued growth for a minimum period of five years following planting, and the understory vegetation is adequate to control erosion and is appropriate for the land-use goal. Quality and quantity, vegetation cover, productivity, and species diversity shall be determined in accordance with scientifically acceptable sampling procedures approved by the Administrator; and

(F) When the approved reclamation plan is to return to cropland, reclamation shall be deemed to be complete when productive capability is equivalent, for at least two consecutive crop years, to the premining conditions or approved reference areas. The premining production data for the reclaimed site shall be considered in judging completeness of reclamation whenever said data are available.

(vii) Any plans for irrigation must be explained.

(viii) The operator must protect young vegetative growth from being destroyed by livestock by fencing or other approved techniques for a period of at least two years, or until the vegetation is capable of renewing itself with properly managed grazing and without supplemental irrigation or fertilization. The Administrator, permittee and the landowner or land managing agency shall determine when the revegetated area is ready for livestock grazing.

(ix) In those areas where there were no or very few noxious weeds prior to being affected by mining, the operator must control and minimize the introduction of noxious weeds into the revegetated areas for a period of at least five years after the initial seeding.

(e) Diversion systems - unchannelized surface water and ephemeral streams.

(i) Surface water shall be diverted around the operation for the following purposes:

(A) To control water pollution;

(B) To control unnecessary erosion;

(C) To protect the on-going operation; and

(D) To protect the water rights of downstream users.

(ii) Temporary diversion of surface runoff or diversions used for erosion control shall meet the following standards:

(A) In soils or other unconsolidated material, the sides of diversion ditches shall be no steeper than 1.5:1;

(B) In rock, the sides of diversion ditches shall not overhang;

(C) In soils or unconsolidated materials, the sides and, in ditches carrying intermittent discharges, the bottom shall be seeded with approved grasses so as to take advantage of the next growing season;

(D) Rock riprap, concrete, soil cement or other methods shall be used where necessary to prevent unnecessary erosion;

(E) Culverts or bridges shall be installed where necessary to allow access by the surface owner for fire control and other purposes; and

(F) Diversion ditches shall in a nonerosive manner pass the peak runoff from a 2-year, 6-hour precipitation event, or a storm duration that produces the largest peak flow, as specified by the Administrator.

(iii) In no case shall diversion ditches discharge upon topsoil storage areas, spoil or other unconsolidated material such as newly reclaimed areas.

(iv) Permanent diversion structures shall be designed to be erosionally stable during the passage of the peak runoff from a 100-year, 6-hour precipitation event, or a storm duration that produces the largest peak flow, as specified by the Administrator.

(f) Diversion of intermittent and perennial streams.

(i) In no case shall spoil, topsoil, or other unconsolidated material be pushed into, or placed below the flood level of a perennial or intermittent stream except during the approved construction of the diversion of said stream.

(ii) The Wyoming Game and Fish Department shall be consulted prior to the approval of a diversion of a perennial or intermittent stream.

(iii) The banks of a diverted perennial or intermittent stream shall be protected by vegetation by planting approved species to take advantage of the next growing season.

(iv) The banks and channel of a diverted perennial or intermittent stream shall be protected where necessary by rock, riprap or similar measures to minimize erosion and degradation of

water quality. Permanent diversions shall be designed and constructed to be erosionally stable. The design of the permanent diversion shall also be consistent with the role of the fluvial system.

(v) Mining on the floodplain of a perennial or intermittent stream shall not be permitted if it would cause the uncontrolled diversion of the stream during periods of high water.

(vi) Waters flowing through or by the mining operation shall meet the standards set by the U.S. Environmental Protection Agency and the Wyoming Water Quality Division in regard to the effect of the operation upon such waters.

(vii) Channel and floodplain shall be designed to pass, in a nonerosive manner, the 10-year, 6-hour precipitation event, if temporary, or the 100-year, 6-hour precipitation event, if permanent, or a duration having a greater peak flow, as specified by the Administrator. Cross-sections of the existing stream above, below and within the disturbed area may be used to determine the flow capacities, channel configuration and shape.

(g) Permanent water impoundments. Permanent water impoundments shall be constructed in accordance with the following requirements:

(i) Dams must contain an overflow notch and spillway so as to prevent failure by overflowing and washing. Overflow notches and spillways must be riprapped with rock or concrete to prevent erosion;

(ii) The slopes around all water impoundments must be gentle enough so as not to present a safety hazard to humans or livestock and so as to accommodate revegetation. Variations from this procedure may be approved by the Administrator based on the conditions present at the individual locality;

(iii) Mineral seams and other sources of possible water contamination within the impoundment area must be covered with overburden or stabilized in such a manner to prevent contamination of the impounded water; and

(iv) Bentonite or other mire-producing material within the impoundment basin shall be removed or covered with materials which will prevent hazards to man or beast.

(h) Tailings impoundments, tailings disposal areas, heap leach facilities, and spent ore disposal areas, excluding uranium mill tailings facilities regulated by the United States Nuclear Regulatory Commission.

(i) Tailings impoundments, tailings disposal areas, heap leach facilities and spent ore disposal areas shall be designed, constructed, and operated in accordance with established engineering principles using best technology currently available to ensure long term stability and to prevent contamination of surface or groundwater. Appropriate leak detection and groundwater monitoring systems

shall be installed to detect any movement of contaminated fluids from the facility. Any leakage or movement of contaminated fluids shall be promptly controlled and remediated using the best technology currently available subject to the Administrator's approval. Impoundments shall be permitted by the Wyoming State Engineer's Office and copies of the State Engineer's permits shall be attached to the application.

(ii) Reclamation of tailings impoundments, tailings disposal areas, heap leach facilities, and spent ore disposal areas shall be accomplished by removal and storage of all topsoil present within the affected lands. After termination of operations, the facility shall be reclaimed in accordance with the approved plan using best technology currently available to ensure long term stability, prevent contamination of surface or groundwater and facilitate the approved postmining land uses. Placement of tailings and spent ore within mine pits or underground mine areas is considered to be a preferred option which shall be thoroughly evaluated in the development of the mine and reclamation plan. The topsoil shall be replaced and revegetated in accordance with these rules and regulations. If other methods of reclamation and stabilization against wind and water erosion are found to be necessary because of natural conditions, this must be stated and described subject to the Administrator's approval.

(i) Roads and railroads. Constructed or upgraded roads and railroad spurs shall be included within the permit area from that point that they provide exclusive service and shall be covered by a reclamation bond.

(i) Roads shall not be constructed up a stream channel or so close that the material shall spill into the channel, unless specifically approved by the Administrator.

(ii) Streams shall be crossed at or near right angles unless contouring down to the streambed will result in less potential streambank erosion. Structure of ford entrances and exits must be constructed to prevent water from flowing down the roadway.

(iii) Drainage control structures shall be used as necessary to control runoff and to minimize erosion, sedimentation and flooding. Drainage facilities shall be installed as road construction progresses.

(iv) Culverts shall be installed at prominent drainageways, or as required by the Administrator. Where necessary, culverts must be protected from erosion by adequate rock, concrete or riprap. Culverts and drainage pipes shall be constructed to avoid plugging, collapsing, or erosion at inlets and outlets.

(v) Trees and vegetation may be cleared only for the essential width necessary to maintain slope stability and to serve traffic needs.

(vi) Access, haul roads and drainage structures shall be routinely maintained.

(vii) Other transport facilities and utilities shall be constructed and maintained to control diminution of degradation of water quality and quantity and to the extent possible prevent additional contributions of suspended solids to streamflow outside the permit area.

(viii) Exemptions concerning roads.

(A) If approval is obtained from the surface landowner to leave a road unreclaimed, an operator may request in writing to the Land Quality Division that a road be permitted to remain unreclaimed. The operator must furnish proof of the surface landowner's approval. Final decision of road reclamation will be made by the Land Quality Division Administrator.

(B) In the event that the surface landowner, a city or town, another agency of the State of Wyoming or an agency of the United States Government has requested that a road not be reclaimed, no bond shall be required of the applicant for the reclamation of the road and reclamation of the road shall not be required; provided, however, that the Administrator receives a copy of the written request from the surface owner, city or town, or agency of the State or Federal Government, for retention of the road.

(j) Disposal of buildings and structures.

(i) All buildings and structures constructed, used or improved by the operator must be removed or dismantled unless it can be demonstrated to the Administrator's satisfaction that the buildings or structures will be of beneficial use in accomplishing the proposed use of the land after reclamation or for environmental monitoring.

(ii) If the operator does not wish to remove certain buildings or facilities, he must obtain the written consent of the surface landowner to leave the buildings or facilities intact. The operator must make a request in writing, providing written proof of the above to the Land Quality Division, that the buildings or facilities be permitted to remain intact.

(k) Time schedule.

(i) Reclamation must begin as soon as possible after mining commences and must continue concurrently until such time that the mining operation is terminated and all of the affected land is reclaimed. If conditions are such that final reclamation procedures cannot begin until the mining operation is completed, this must be explained in the reclamation plan. A detailed time schedule for the mining and reclamation progression must be included in the reclamation plan. This time schedule shall:

(A) Apply to reclamation of all lands to be affected in the permit area;

(B) Designate times for backfilling, grading, contouring and reseeding;

(C) Be coordinated with a map indicating the areas of progressive mining and reclamation;

(D) Establish reclamation concurrently with mining operations, whenever possible. If not possible, the schedule shall provide for the earliest possible reclamation consistent with the orderly and economic development of the property; and

(E) If the Administrator approves a schedule where reclamation follows the completion of mining, describe the conditions which will constitute completion or termination of mineral production.

(ii) If reclamation of an area is delayed beyond 180 days after termination of a mining operation on the basis that economic conditions may make it profitable to continue mining in the area in the future, this must be explained in a written request for interim mine stabilization.

(A) The Administrator has the authority to approve or disapprove a request for interim mine stabilization for a period not to exceed five years. The Administrator shall evaluate the operator's written request for interim mine stabilization on the operator's demonstration that:

(I) Economic conditions are such that mining cannot continue at the present time;

(II) There are marginal reserves remaining in the area. The permit mine plan must show a plan for mining these reserves; if the mine plan does not, the operator shall submit a permit revision subject to the requirements of Chapter 7;

(III) Certain affected lands must remain unreclaimed in order to provide practicable access to, or development of, the marginal reserves identified in (II) above. These areas must be stabilized to protect public health, safety and welfare; and

(IV) Sufficient means are employed to reclaim and stabilize all affected lands, excluding those identified in (III) above, to protect the public health, safety and welfare and the environment. This shall include the prevention of surface and subsurface water pollution, avoid public nuisance and provide safety measures to protect human and animal life.

(B) All interim mine stabilization requests and renewals must be accompanied by written consent from the surface landowners to the proposed plan. The Council may issue an order in lieu of consent if it finds that:

(I) The stabilization plan has been submitted to the surface landowner for approval;

(II) All affected lands, excluding those identified in (A)(III), have been or are being reclaimed; and

(III) The interim mine stabilization will not substantially interfere with the operations of the surface landowners.

(C) All bonding and monitoring requirements shall be maintained during the approved interim period.

(D) Renewal for interim mine stabilization, not to exceed five years, may be requested of and approved by the Environmental Quality Council upon referral by the Administrator. This is provided that the request contains supporting evidence for the continued delay, and shows that interim mine stabilization monitoring requirements have been and are being maintained.

(E) Public notice requirements for requests and renewals of Interim Mine Stabilization for minerals other than coal.

(I) The initial request for Interim Mine Stabilization requested under this regulation shall include an affidavit from the newspaper verifying that notice of the request for interim mine stabilization has been published once a week for two consecutive weeks in the newspaper of general circulation in the locality of the mined area.

(II) The second request after approval of Interim Mine Stabilization shall include an affidavit from the newspaper verifying that notice of the renewal request was published for three consecutive weeks in a newspaper of general circulation in the locality of the mine area, and if requested, a public hearing will be held.

(III) Subsequent renewal requests shall require a public hearing. At the public hearing the operator shall present to the Council the requirements of (A), (B), (C), and (D) and the public shall have the opportunity to present their comments.

(F) Marginal reserves, for the purpose of Interim Mine Stabilization, shall be as defined in U.S. Geological Survey Circular 831, 1980, i.e., "that part of the reserve base which, at the time of determination, borders on being economically producible. Its essential characteristic is economic uncertainty. Included are resources that would be producible, given postulated changes in economic or technical factors."

(l) Unanticipated conditions.

(i) An operator encountering unanticipated conditions shall notify the Administrator as soon as possible and in no event more than five days after making the discovery.

(ii) An unanticipated condition is any condition encountered in a mining operation and not mentioned by the operator in his mining or reclamation plan which may seriously affect the procedures, timing, or outcome of mining or reclamation. Such unanticipated conditions include but are not limited to the following:

(A) The uncovering during mining operations of any acid-forming, radioactive, inflammable, or toxic materials which must be burned, impounded, or otherwise disposed of in order to eliminate pollution or safety hazards;

(B) The discovery during mining operations of a significant flow of groundwater in any stratigraphic horizon;

(C) The occurrence of slides, faults, or unstable soil and overburden materials which may cause sliding or caving in a pit which could cause problems or delays with mining or reclamation;

(D) The occurrence of uncontrolled underground caving or subsidence which reaches the surface, causing problems with reclamation and safety hazards; and

(E) A discovery of significant archaeological or paleontological importance.

(iii) In the case of the uncovering of hazardous materials, the operator shall take immediate steps to notify the Administrator and comply with any required measures to eliminate the pollution or safety hazard. Under all conditions the operator must take appropriate measures to correct, eliminate, or adapt to an unanticipated condition before mining resumes in the immediate vicinity of that condition.