

ENVIRONMENTAL QUALITY

CHAPTER 24

RECLAMATION

Subchapter 1

Rules and Regulations Governing the Montana Hard Rock Mining Reclamation Act

Rule	17.24.101	General Provisions
	17.24.102	Definitions
	17.24.103	Exploration License--Application and Conditions
	17.24.104	Exploration (Temporary) Roads
	17.24.105	Conduct of Exploration Operations
	17.24.106	Exploration Drill Hole Plugging
	17.24.107	Reclamation Requirements--Exploration
	17.24.108	Exploration Reclamation Deferred
		Rules 17.24.109 through 17.24.114 reserved
	17.24.115	Operating Permits: Reclamation Plans
	17.24.116	Operating Permit: Application Requirements
	17.24.117	Permit Conditions
	17.24.118	Annual Report
	17.24.119	Permit Amendments
	17.24.120	Permit Revisions
	17.24.121	Permit Reviews
	17.24.122	Permit Assignment
	17.24.123	Permit Consolidation
		Rules 17.24.124 through 17.24.127 reserved
Rule	17.24.128	Inspections: Frequency, Method, and Reporting
	17.24.129	Inspections: Response to Citizen Complaints

- Rules 17.24.130 and 17.24.131 reserved
- 17.24.132 Enforcement: Processing of Violations and Penalties
- 17.24.133 Enforcement: Abatement of Violations and Permit Suspension
- 17.24.134 Enforcement: Assessment of Penalties
- Rule 17.24.135 reserved
- 17.24.136 Orders: Issuance and Service
- 17.24.137 Notices and Orders: Effect
- Rules 17.24.138 and 17.24.139 reserved
- 17.24.140 Bonding: Determination of Bond Amount
- 17.24.141 Bonding: Adjustment of Amount of Bond
- 17.24.142 Bonding: Replacement of Bond
- 17.24.143 Bonding: Form of Bond
- 17.24.144 Bonding: Surety Bonds
- 17.24.145 Bonding: Certificates of Deposit
- 17.24.146 Bonding: Letters of Credit
- Rules 17.24.147 through 17.24.149 reserved
- 17.24.150 Abandonment or Completion of Operation
- 17.24.151 Abandoned Pits: Objectionable Effluents (REPEALED)
- 17.24.152 Disclosure of Information (REPEALED)
- 17.24.153 General Compliance
- Rules 17.24.154 through 17.24.156 reserved
- Rule 17.24.157 Blasting Operations: Complaint Procedure
- 17.24.158 Blasting Operations: Participation and Cooperation of Persons Using Explosives
- 17.24.159 Blasting Operations: Orders of the Department
- Rules 17.24.160 through 17.24.164 reserved

	17.24.165	Mills and Reprocessing Operations: Definitions
	17.24.166	Mills: Applicability of Rules to Mills
	17.24.167	Mills: Operating Permit Application
	17.24.168	Mills: Operating Plans
	17.24.169	Mills: Reclamation Plans
	17.24.170	Mills: Cessation or Completion of Operation
	17.24.171	Reprocessing of Waste Rock and Tailings
		Rules 17.24.172 through 17.24.179 reserved
Rule	17.24.180	Definitions
	17.24.181	Small Miner Placer and Dredge Bonding
	17.24.182	(Interpretive Rule) Operational Recommendations for Small Miners
	17.24.183	Comparable Utility and Stability of Reclaimed Areas--Standards for Bond Release for Small Miners
	17.24.184	Small Miner Bond Forfeiture and SMES Revocation
	17.24.185	Small Miner Metal Leaching Solvent or Reagent Applications
	17.24.186	Small Miner Metal Leaching Solvent or Reagent Baseline Information
	17.24.187	Small Miner Metal Leaching Solvent or Reagent Operating Plans
	17.24.188	Small Miner Metal Leaching Solvent or Reagent Reclamation Plans
	17.24.189	Small Miner Metal Leaching Solvent or Reagent Processing Facilities Performance Standards and Bonding

Subchapter 1

Rules and Regulations Governing
the Montana Hard Rock Mining Reclamation Act

17.24.101 GENERAL PROVISIONS (1) The Act and this subchapter provide that no person may engage in exploration for, or mining of minerals on or below the surface of the earth, engage in ore processing, reprocessing of mine waste rock or tailings, construct or operate a hard rock mill, use cyanide or other metal leaching solvents or ore-processing reagents, or disturb land in anticipation of any of these activities without first obtaining the appropriate license or permit from the department. Prior to receipt of an exploration license or operating permit the applicant, other than a public or governmental agency, shall deposit with the department a reclamation performance bond in a form and amount as determined by the department in accordance with 82-4-338, MCA. The license or permit may be issued following receipt and acceptance of the reclamation performance bond, and, at such time, operations may commence.

(2) Section 82-4-390, MCA, provides that open pit mining for gold or silver using heap leaching or vat leaching with cyanide ore-processing reagents is prohibited, except that a mine in operation on November 3, 1998, may continue operating under its existing operating permit or any amended permit that is necessary for continued operation of a mine.

(3) The mining of certain substances is excluded from the Act and this subchapter. See definition of "mineral" in ARM 17.24.102.

(4) A small miner who signs an agreement described in 82-4-305, MCA, and does not violate the Act and this subchapter, is excluded from certain requirements of the Act as they relate to mining, except as noted in 82-4-305, MCA. See definition of "small miner" in ARM 17.24.102. All exploration operations, regardless of size, must comply with the requirements of 82-4-331 and 82-4-332, MCA, and ARM 17.24.103 through 17.24.107. See definitions of "exploration" and "mining" in ARM 17.24.102.

(5) The Act and this subchapter do not apply to a person engaging in a mining activity described in 82-4-310(1) and (2), MCA. The Act and this subchapter apply to a person who, on land owned or controlled by that person, is allowing other persons to engage in mining activities whose activities cumulatively exceed the activity described in 82-4-310(1), MCA.

(6) Subject to the exclusions set forth in the Act and pursuant to the definitions of "surface mining", "mining", "exploration" and "mineral" in the Act, placer or dredge mining, and rock quarrying are included in the application of the Act.

(7) As used in this subchapter, the term "operator" includes a licensee, a permittee, and a small miner. The Act covers the operator's employees and agents as well as subcontractors and the subcontractor's employees and agents. The operator is liable for violations of the Act by its employees, agents and subcontractors (drilling, construction, maintenance or otherwise) and the subcontractor's employees and agents when they are working on the project for which the permit or license was issued or which is subject to an exclusion.

(8) Common use pits and quarries on federal land which are available to the general public for the exclusive or nonexclusive procurement of rock or stone and which are administered by the responsible federal agency under appropriate regulations are not subject to these rules, pursuant to 82-4-309, MCA. (History: 82-4-321, MCA; IMP, 82-4-305, 82-4-309, 82-4-320, 82-4-331, 82-4-332, 82-4-335, 82-4-361, 82-4-362, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2000 MAR p. 473, Eff. 2/11/00; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.102 DEFINITIONS As used in the Act and this subchapter, the following definitions apply:

(1) "Act" means Title 82, chapter 4, part 3, MCA.

(2) "Alternate reclamation" means the return of lands disturbed by mining or mining-related activities to a postmining land use other than that which existed prior to mining. Alternate reclamation must be stable, must have utility and must comply with Title 75, chapters 2, 5, and 6, MCA.

(3) "Bulkhead" means a door, fence or other construction which allows periodic entry to an adit or shaft, adequately secured and locked so that animals and unauthorized persons are denied entry.

(4) "Beneficial use" means use of water as defined in 85-2-102, MCA.

(5) "Collateral bond" means an indemnity agreement for a fixed amount, payable to the department, executed by the operator and supported by the deposit with the department of cash, negotiable bonds of the United States (not treasury certificates), state or municipalities, negotiable certificates of deposit or an irrevocable letter of credit of any bank organized or authorized to transact business in the United States or other surety acceptable to the department.

(6) "Disturbed and unreclaimed surface" means, as used in the definition of "small miner" and ARM 17.24.101(4), land affected by mining activities, including reprocessing of tailing or waste material, that has not been restored to a continuing productive use, with proper grading and revegetative procedures to assure:

- (a) slope stability;
- (b) minimal erosion;
- (c) adequate vegetative ground cover (if in keeping with reclaimed use);
- (d) that no mine discharge water, ground water or surface water passing through a disturbed area will pollute or contaminate any state waters.

(7) "Exclusion" means a statement filed by a small miner pursuant to 82-4-305, MCA.

(8) "Exploration" includes pilot ore processing plants or sites and associated facilities constructed for the sole purpose of metallurgical or physical testing of ore materials, not to exceed 10,000 short tons, to aid in determining the development potential of an ore body.

(9) "Permit area" is the disturbed land as defined in 82-4-303, MCA, and a minimal area delineated around a disturbance area for the purposes of providing a buffer adjacent to all disturbances, and for the purposes of controlling public access to areas permitted under 82-4-335, MCA. Monitoring wells are not required to be within a contiguous permit boundary, but must be permitted. Other activities are to be included within the permit boundary as follows:

- (a) Access roads must be included within the permit area from the point of departure with a public road to the mine site.
- (b) Utilities are required to be permitted only within the permit area.
- (c) Work camps are not required to be permitted. (However, they are regulated under Title 75, chapter 5, MCA.)

(10) "Placer or dredge mining" includes, but is not limited to, mining by hydraulic giant, ground sluice, rocker or sluice box methods, the use of a dry land dredge, trommel or washing plant, and bucket type floating dredges, all as referred to in Mining Methods and Equipment Illustrated, Montana Bureau of Mines and Geology, Bulletin 63, 1967.

(11) "Plan of operations" means the plans required under 82-4-335 through 82-4-337, MCA, including the reclamation plan defined in 82-4-303, MCA, plus the approved operating, monitoring and contingency plans required in an application for an operating permit.

(12) "Pollute or contaminate any stream" means, as used in 82-4-305, MCA, to conduct any mining or reprocessing of tailing or waste in a manner that will result in deterioration of water quality as specified by standards listed in ARM Title 17, chapter 30, et seq., pursuant to the Montana Water Quality Act, Title 75, chapter 5, et seq., MCA. Any future revisions of these standards adopted in accordance with the provisions of the Montana Water Quality Act, as amended, apply to this definition.

(13) "Reclamation" means the return of lands disturbed by mining or mining-related activities to an approved postmining land use which has stability and utility comparable to that of the premining landscape except for rock faces and open pits which may not be feasible to reclaim to this standard. Those rock faces and open pits must be reclaimed in accordance with 82-4-336, MCA. The term "reclamation" does not mean restoring the landscape to its premining condition. Reclamation, where appropriate, may include, but is not limited to:

- (a) neutralizing cyanide or other processing chemicals;
- (b) closure activities for ore heaps, waste rock dumps, and tailing impoundments;
- (c) closure activities for surface openings;
- (d) grading, soiling and revegetating disturbed lands;
- (e) removal of buildings and other structures that have no utility in regard to the approved postmine land use;
- (f) other steps necessary to assure long-term compliance with Title 75, chapters 2 and 5, MCA; and
- (g) other steps necessary to protect public health and safety at closure.

(14) "Revision" means a change to an operating permit that is exempt under 82-4-342, MCA, from the requirement to prepare an environmental assessment or environmental impact statement.

(15) "Significantly affect the human environment" means an affect on the human environment that meets the criteria of ARM 17.4.608.

(16) "Small miner" is defined in 82-4-303, MCA.

(17) "Surety bond" means a surety agreement for a fixed amount, payable to the department, executed by a corporation licensed to do business as a surety in Montana, and guaranteeing performance of the obligations of the Act, the rules and the appropriate permit, exclusion or license. (History: 82-4-321, MCA; IMP, 82-4-303, 82-4-305, 82-4-309, 82-4-310, 82-4-331, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2000 MAR p. 473, Eff. 2/11/00; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.103 EXPLORATION LICENSE--APPLICATION AND CONDITIONS

(1) To secure an exploration license an applicant shall:

- (a) pay a filing fee of \$100 to the department;
- (b) submit an application for an exploration license, complete with a notarized signature, in duplicate to the department upon forms prepared and furnished by it;
- (c) submit an exploration plan of operations and a map or sketch in sufficient detail to locate the area to be explored as well as the actual proposed disturbances, and to allow the department to adequately determine whether significant environmental problems would be encountered. The plan of operations must state the type of exploration techniques that would be employed in disturbing the land and include a reclamation plan in sufficient detail to allow the department to determine whether the specific reclamation and performance requirements of ARM 17.24.104 through 17.24.107 would be satisfied;
- (d) agree to reclaim any surface area disturbed by the applicant during exploration operations, all as may be reasonably required by the department, unless the applicant shall have applied for and been issued an operating permit for the lands so disturbed;
- (e) submit a reclamation performance bond with the department in a form and amount determined adequate by the department in accordance with 82-4-338, MCA; and
- (f) not be in default of any other reclamation obligation mandated by the Act or rules implementing the Act.

(2) On approval by the department, the applicant will be issued an exploration license renewable annually by filing an annual report on a form provided by the department and payment of the renewal fee of \$25.

(3) An exploration licensee is subject to and must agree to the provisions of ARM 17.24.104 through 17.24.107 for reclamation of surface areas disturbed by exploration operations. Because of the inherent difficulties of promulgating regulations of state-wide applicability, the department will allow variance from the following provisions of this rule, if a written request submitted prior to commencement of the subject disturbance is accompanied by the landowner's or land administrator's written consent to the variance and is sufficient to convince the department that the public interest and the intent of the Act are best served by allowing such variance.

(4) In the absence of emergency or suddenly threatened or existing catastrophe, the licensee may not depart from an approved plan without previously obtaining from the department verbal or written approval of the proposed change. (History: 82-4-321, MCA; IMP, 82-4-332, MCA; Eff. 12/31/72; AMD, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.104 EXPLORATION (TEMPORARY) ROADS (1) Insofar as possible, all roads must be located on benches, ridge tops and flatter slopes to minimize disturbance and enhance stability.

(2) Road widths may not exceed a 14 foot single lane standard. Turn-outs may be constructed according to the licensee's needs, but the turn-out area may not exceed 30 feet in total width.

(3) No road may be constructed up a stream channel proper or so close that material will spill into the channel. Minor alterations and relocations of streams may be permitted if the stream will not be blocked and if no damage is done to the stream or adjoining landowners. No alteration that affects more than 100 linear feet of the channel of a flowing stream may be approved by the department without advice from the Department of Fish, Wildlife and Parks. Any stream channel alterations must comply with Title 75, chapter 5, MCA.

(4) Road gradients must be kept low except for short pitches to take advantage of topography. Maximum sustained grades may not exceed 8%. Pitch maximum may not exceed 12% and may not be over 300 feet in length.

(5) Insofar as possible, the licensee must keep road cuts reasonably steep to minimize surface disturbances. Cut slopes may not be steeper than 1:1 in soil, sand, gravel, or colluvium; 1/4:1 in lake silts, or more than 0:1 in rock. Where necessary to prevent significant sloughing or slumping, the top of road cuts must be rounded back to a more gentle slope. In selecting a slope angle, to prevent slope failure the licensee should consider at least the following factors: the nature of the material, compaction, slope height and moisture conditions.

(6) A ditch must be provided on both sides of a throughcut and, with the exception of outsloping roads, on the inside shoulder of a cut-fill section, with ditch relief cross drains (water bars) being spaced according to grade. Water must be intercepted before reaching a switchback or large fill, and be routed and released below the fill or switchback, not over it.

(7) Streams must be crossed at or near right angles unless contouring down to the stream bed will result in less potential stream bank erosion. Structure or ford entrances and exits must be constructed to prevent water from flowing down the roadway.

(8) Culverts must be installed at prominent drainage ways, small creeks and springs. Upon abandonment of the road, culverts must be removed and the drainage way reopened. Such culverts must be sufficient to handle runoff expected from a statistical five-year storm and, where necessary, the area adjoining the culvert must be protected from erosion by adequate, inert rock riprap.

(9) Trees and vegetation may be cleared for only the essential width necessary to maintain soil stability and to serve traffic needs. Trees must be felled prior to road construction. When sideslopes are 15% (8.5°) or less, trees and other vegetative debris from clearing operations must be completely disposed of, stockpiled at specified areas, or used as a sediment filter below the road cut. When sideslopes are steeper than 15% (8.5°), trees and vegetative debris shall be piled neatly below and parallel to the toe of the fill.

(10) Drainage facilities (such as culverts and water bars) must be installed as road construction progresses.

(11) Adequate diagonal drainage barriers (i.e., water bars, drain dips or similarly effective features) must be placed at the following specified intervals:

<u>Grade (%)</u>	<u>Maximum Spacing (feet)</u>
0 - 2	200
3 - 8	150
9 - 12	80

(12) Roads must be outsloped whenever possible. If roads are to be used during snow season, insloping with proper drainage consideration is acceptable for vehicle safety reasons.

(13) Snowplowing must be done in such a manner that runoff water will not be trapped between the snow berms and flow down the road.

(14) Materials which slough or slump onto the road bed or into the roadside drainage ditch before the licensee completes the exploration project must be disposed of on the road bed or on the fill material in a manner that will not obstruct any of the drainage facilities previously described.

(15) All fill and cut slopes, with the exception of rock faces, must be seeded or planted or both during the first appropriate season following construction of the road.

(16) The department may waive any of the criteria in this section if the applicant proposes methods or technologies that achieve the same or better environmental protection than that expected under the given criteria. (History: 82-4-321, MCA; IMP, 82-4-332, MCA; Eff. 12/31/72; AMD, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.105 CONDUCT OF EXPLORATION OPERATIONS (1) All suitable practically salvaged soil and soil material must be salvaged prior to any other site disturbance, and either stockpiled or used for immediate reclamation.

(2) Except for samples, drilling mud, water and other fluids as well as waste cuttings from drilling operations must be confined to the drill site by the use of storage tanks or sumps or must be disposed of in accordance with a plan approved by the department.

(3) Drill sites must not be constructed in natural flowing streams.

(4) Areas disturbed by removal of vegetation or grading must be kept to the minimum size necessary to accommodate the exploration operation.

(5) Insofar as possible, trenches, discovery pits and other excavations must be located out of natural flowing streams.

(6) Spoil from pits, trenches, shafts, adits, or other excavations must not be located in drainage ways. The lower edge of the spoil bank must be at least five vertical feet above high flow level. Exceptions may be made when it is not physically practical to place spoil at least five vertical feet above the high flow level.

(7) If an artesian aquifer is intercepted during a drilling operation, the drill hole must be plugged at depth (top to bottom) prior to removal of the drill rig.

(8) Oil, grease, hydraulic fluid and other petroleum products must not be released on the exploration site. If a release occurs, the contaminated material must be removed immediately and disposed of at a proper disposal site.

(9) Exploration adits, shafts, and other excavations must be secured from unauthorized entry throughout the life of the operation to ensure public safety.

(10) Pilot ore processing plants or sites, as defined in ARM 17.24.102, and permitted under an exploration license, are subject to all applicable requirements of 82-4-335 through 82-4-337, MCA.

(11) The department may require interim revegetation for the purposes of erosion control on all exploration disturbance areas. (History: 82-4-321, MCA; IMP, 82-4-332, MCA; Eff. 12/31/72; AMD, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.106 EXPLORATION DRILL HOLE PLUGGING (1) Except as provided in (3) of this rule, all exploration drill holes must be plugged at the surface five to ten feet with cement.

(2) Except as provided in (3) of this rule, exploration drill holes must be plugged with bentonite or a similar compound from the bottom of the hole to within five to ten feet of the surface, and with cement from the top of the bentonite to the surface if one or more of the following conditions apply:

- (a) two aquifers are intercepted;
- (b) one aquifer is intercepted and an existing or potential beneficial use (domestic, agricultural or fish/ wildlife water supply) exists;
- (c) one or more artesian aquifers are intercepted causing either surface flow or significant water rise in the hole; or
- (d) the potential exists for downward water loss from an aquifer (cascade effect) as determined by the department.

(3) Exceptions to (1) and (2) of this rule may be granted by the department if:

- (a) shallow placer holes are drilled using a churn or percussion drill or similar equipment in alluvium in which the holes will be obliterated as the drill stem is withdrawn, leaving no evidence of the hole;
- (b) the drill hole contained no water, is not geologically likely to contain water and the hole is to be destroyed during mining or mining related disturbances;
- (c) the drill hole is developed into a water well, monitoring well, or piezometer with the written agreement of the land owner and to the specifications of the appropriate state agency; or
- (d) other site-specific hydrogeological and topographic situations necessitate exceptions.

(4) All flowing or artesian drill holes must be plugged prior to removing the drill rig from a hole unless removing the drill rig is necessary to the hole plugging operation. If the flow is not completely stopped, after exhaustion of all methods, the operator must:

- (a) obtain a discharge permit from the Department of Environmental Quality;
- or
- (b) develop a water well in compliance with the requirements of other applicable local, state and federal statutes, including water rights. In addition, the land owner must concur, the amount and use of flow must be compatible with the approved postmining land use, and the water quality must meet standards set under the Title 75, chapter 5, MCA.

(5) In areas and geological formations of known artesian well potential, bonding for drill sites must be adequate to ensure artesian hole plugging. (History: 82-4-321, MCA; IMP, 82-4-302, 82-4-332, 82-4-355, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.107 RECLAMATION REQUIREMENTS--EXPLORATION (1) Upon completion of the drilling operation, drill cuttings or core must be removed from the site, disposed of down the hole, or buried. Drilling mud and other nontoxic lubricants must be removed from the site or allowed to percolate into the ground prior to backfilling the sump.

(2) Unless the hole is completed under ARM 17.24.106(3)(c), collar pipe or casing must be removed or cut off below ground level.

(3) Access roads constructed by the licensee to accommodate the exploration project must be returned to a stable slope that approximates the original contour to the extent possible. Where this is not possible (as determined by the department), compacted surfaces must be ripped or otherwise loosened, drainage structures must be installed in accordance with ARM 17.24.104(11), and the roads must be closed to access by use of locked gates, kelly humps/dips, or other effective method. Exceptions may be made in accordance with the provisions of ARM 17.24.103(2). This requirement may be waived by the department if the landowner requests in writing that the access road be left in place for an identified, alternative, feasible and practicable purpose.

(4) Drill sites constructed by the licensee must be returned to a stable configuration that approximates the original contour to the extent possible. Where the department determines that this is not possible, compacted surfaces must be ripped or otherwise loosened and appropriate drainage must be provided. This requirement may be waived by the department if the landowner requests in writing that the drill site be left in place for an identified, feasible and practicable purpose.

(5) When such actions will not obscure significant evidence relating to the possible presence of an ore deposit or physically hinder further development of the claim, all trenches, bulk sample or discovery pits, and other excavations must be backfilled with the excavated spoil material. If, following a site investigation and discussions with the licensee, the department confirms the necessity for the excavation to remain open, backfilling requirements may be postponed providing the licensee remains in compliance with 82-4-331, and 82-4-332, MCA, and ARM 17.24.103, 17.24.105, 17.24.151, and 17.24.153.

(6) Upon termination of the exploration project, the first 25 feet of all adits must be backfilled with waste rock or riprap which will not contribute to the degradation of any discharge water. Shafts must also be backfilled or otherwise securely sealed upon project termination. If, following a site investigation and discussions with the licensee, the department confirms the necessity for an adit or shaft to remain accessible for possible future exploration or development, the adit or shaft must be secured with a steel bulkhead or other equally effective method to prevent unauthorized entry and ensure public safety.

(7) All refuse, buildings, railroad track, and other facilities associated with the exploration project must be removed and disposed of in proper disposal sites. Exceptions may be made by the department if the licensee desires to mine the area and is in compliance with 82-4-332(4), MCA. This requirement may also be waived by the department if the landowner requests in writing that specific facilities be left in place for an identified, alternative, feasible and practicable purpose.

(8) All compacted surfaces associated with exploration adits, shafts, pits and associated facilities shall be ripped or otherwise loosened prior to soil replacement.

(9) Unless other reclamation practices are approved by the department, waste dumps associated with new adits excavated for the purposes of underground exploration must be contoured to allow for soil replacement and successful vegetation establishment. When existing, caved (sloughed) adits are reopened for the purposes of exploration and the caved material can be confined to the existing portal pad or waste dump without requiring expansion, contouring is not required. However, the licensee shall provide for appropriate drainage in the portal area, and the portal pad and waste dump must be stabilized with vegetation or by employing other stabilization methods determined acceptable by the department.

(10) Where feasible, soil and soil materials salvaged during construction must be reapplied over all disturbance areas.

(11) Where feasible, all disturbed areas must be revegetated with a seed mixture that is approved by the department.

(12) Appropriate revegetation must be accomplished as soon after necessary grading as possible; however, revegetation must be performed in the proper season in accordance with accepted agricultural and reforestation practices.

(13) In the event that any of the above revegetation efforts are unsuccessful, the licensee must seek the advice of the department and make a second attempt, incorporating such changes and additional procedures as may be expected to provide satisfactory revegetation. (History: 82-4-321, MCA; IMP, 82-4-332, MCA; Eff. 12/31/72; AMD, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.108 EXPLORATION RECLAMATION DEFERRED (1) The department may defer the reclamation requirements of acreage disturbed under an exploration license if that acreage is proposed for incorporation into a complete plan of operation that is being prepared or has already been submitted as part of an application for an operating permit.

(2) The licensee shall comply with the following conditions of a reclamation deferral:

- (a) a current exploration license shall be maintained;
- (b) a current and adequate bond shall be maintained;
- (c) the licensee shall be actively pursuing an operating permit or have filed a valid exclusion; and
- (d) the licensee shall observe any interim monitoring or reclamation requirements as may be reasonably required by the department.

(3) The department shall cancel the deferral and issue an order to reclaim if the licensee fails to meet any of the conditions outlined in (2), listed above. (History: 82-4-321, MCA; IMP, 82-4-331, 82-4-332(4), 82-4-338, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

Rules 17.24.109 through 17.24.114 reserved

17.24.115 OPERATING PERMITS: RECLAMATION PLANS (1) The following provisions must be addressed in the reclamation plan:

(a) land disturbed by development or mining activities must be reclaimed for one or more specified uses, including, but not limited to: forest, pasture, orchard, cropland, residence, recreation, wilderness, industry, habitat (including food, cover or water) for wildlife or other uses. Proposed reclamation need not reclaim subject disturbed areas to a better condition or different use than that which existed prior to development or mining. The applicant must describe:

- (i) current uses(s) of area to be disturbed;
- (ii) current and proposed uses of nearby land that by its proximity may influence or guide the choice of a reclaimed use of the disturbed area;
- (iii) pertinent climatic, topographical, soil, water and wildlife data that govern choice of proposed use of the reclaimed land.

(b) With the use of cross-sections, topographic maps or detailed prose, the proposed topography of the reclaimed land must be adequately described. As specific situations warrant, proper grading must provide for adequately designed contour trenches, benches and rock-lined channelways on disturbed areas. The applicant must submit evidence to assure the department that upon partial or complete saturation with water, graded fill, tailings or spoil slopes will be stable. The proposed grading methods must be described. Where practicable, soil materials from all disturbed areas must be stockpiled and utilized.

(c) The operator must establish vegetative cover commensurate with the proposed land use specified in the reclamation plan.

(d) Where operations result in a need to prevent acid drainage or sedimentation, on or in adjoining lands or streams, there shall be provisions for the construction of earth dams or other reasonable devices to control water drainage, provided the formation of such impoundments or devices shall not interfere with other landowner's rights or contribute to water pollution (as defined in Title 75, chapter 5, MCA).

(e) All water, tailings or spoil impounding structures must be equipped with spillways or other devices that will protect against washouts during a 100 year flood.

(f) Upon abandonment, water from the development or mining activities shall be diverted or treated in a manner designed to control siltation, erosion or other water pollution damage to streams and natural water courses.

(g) All operations shall be conducted so as to avoid range and forest fires and spontaneous combustion.

(h) Proper precautions must be taken to assure that exposed cuts and tailings or spoil disposal areas will not be subject to wind erosion to the extent that airborne detritus becomes a public nuisance or detriment to the flora and fauna of the area.

(i) In a reclamation plan, the applicant shall provide the department with sufficiently detailed information regarding method(s) of disposal of mining debris, including mill tailings, and the location and size of such areas.

(j) Requirements regarding reclamation of stream channels and stream banks must be flexible to fit circumstances of each stream site. Many stream relocations, however, will be permanent and thus will represent the reclaimed condition of stream channels and stream banks. Accordingly, reclamation plans must contain the following provisions should stream channels or banks be permanently relocated:

(i) the relocation channel shall be of a length equal to or greater than the original channel, unless the department after consideration of the local circumstance shall grant a variance;

(ii) the relocation channel shall contain meanders, riffles and pools similar to those in the original channel;

(iii) stream banks shall be rounded to prevent slumping and sloughing and shall be revegetated in keeping with accepted agriculture or reforestation practices the first appropriate season following channel relocation;

(iv) rock riprap shall be used wherever appropriate.

(k) Sections 82-4-332 and 82-4-335, MCA, require that maps of the intended development or mining operation(s) accompany applications for permit. Should a copy of such maps, to scale, contain the following additional information (transparent overlays are acceptable), a separate map need not accompany the reclamation plan:

(i) outline of the area to be disturbed in the first year of operation;

(ii) outline of areas where soil materials will be replaced;

(iii) outline of intended revegetation areas showing plant or seed densities and species chosen;

(iv) location of such structures, drainage features, etc., as may be necessary to prevent erosion of bare slopes and subsequent siltation or other pollution of natural flowing streams or other natural water bodies.

(l) Reclamation shall be as concurrent with development or mining operations as feasible and must be completed within a specified reasonable length of time. Revegetation must be accomplished in the first appropriate season after necessary grading, in accordance with accepted agricultural or reforestation practices.

(m) All facilities constructed as part of the operating permit must be reclaimed for the approved postmine land use. The reclamation plan must provide for removal of buildings and other structures at closure consistent with the postmine land use.

(n) The plan must provide for postmine environmental monitoring programs and contingency plans for the postreclamation permit area. The monitoring programs and contingency plans must be related in scope and duration to the risk to public safety, water quality and adjacent lands they were designed to address.

(History: 82-4-321, MCA; IMP, 82-4-335, 82-4-336, MCA; Eff. 12/31/72; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.116 OPERATING PERMIT: APPLICATION REQUIREMENTS

- (1) Applicant must obtain an operating permit for each mine complex on a form prescribed by the department.
- (2) To obtain an operating permit the applicant shall pay a \$500 fee.
- (3) In addition to the information required by 82-4-335(4), MCA, an application for an operating permit must describe the following:
 - (a) the existing environment;
 - (b) soil salvage and stockpiling activities and measures to protect soil from erosion and contamination;
 - (c) provisions for the prevention of wind erosion of all disturbed areas;
 - (d) the design, construction, and operation of the mine, mill, tailings, and waste rock disposal facilities;
 - (e) the facilities, buildings, and capacity of mill or processing;
 - (f) the proposed date for commencement of mining, the minerals to be mined, and a proposed conceptual life of mine operations;
 - (g) the designs of diversions, impoundments, and sediment control structures to be constructed reflecting their safety, utility, and stability;
 - (h) the location of access, haul, and other support roads and provisions for their construction and maintenance that control and minimize channeling and other erosion;
 - (i) the source and volume of incoming ore, tailings, or waste rock;
 - (j) the equipment and chemicals to be used in the operation by location and task;
 - (k) the general chemical processes and the purpose, amount, and source of water used in the operation and the disposition of any process waste water or solutions;
 - (l) the ground and surface water monitoring programs to be implemented and a contingency plan addressing accidental discharges to ground or surface water;

- (m) a fire protection plan;
 - (n) a toxic spill contingency plan with certification that notice of the filing of the plan has been provided to the state fire marshal;
 - (o) the sewage treatment facilities and solid waste disposal sites;
 - (p) the power needs and source(s), including fuel storage sites;
 - (q) the anticipated employment including direct and onsite contract employees;
 - (r) the transportation network to be used during the construction and operation phases, including a list of the type and amount of traffic at mine or mill capacity;
 - (s) the predicted noise levels by activities during construction and operations;
 - (t) the protective measures for archaeological and historical values in the areas to be mined;
 - (u) the protective measures designed to avoid foreseeable situations of unnecessary damage to flora and fauna in or adjacent to the area.
- (4) The application must include a map or maps to scale of the mine area and area to be disturbed (such map must locate the proposed mine and facilities and must locate and identify streams, and proposed roads, railroads, and utility lines in the immediate area and residences and wells within one mile of the permit area). All maps provided in the application must have a uniform base, a scale, and a north directional arrow.
- (5) The application must include a reclamation plan that meets the requirements of 82-4-336, MCA, and this subchapter. (History: 82-4-321, MCA; IMP, 82-4-336, MCA; Eff. 12/31/72; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.117 PERMIT CONDITIONS (1) The following conditions accompany the issuance of each permit:

(a) The permittee shall conduct all operations as described in:

(i) the plan of operations including the approved operating, reclamation, monitoring, and contingency plans;

(ii) any express conditions which the department places on the permit to ensure compliance with the Act or this subchapter promulgated pursuant thereto;

(iii) written commitments made by the permittee in response to deficiencies identified by the department during the permit application review process;

(iv) mitigation measures mutually developed by the department and permittee pursuant to 75-1-201(5)(b), MCA; and

(v) plans or assumptions used in calculating bond amounts that have been posted by the permittee.

(b) If the department issued the permit because the applicant was maintaining a good faith direct appeal in accordance with 82-4-335, MCA, the permittee will immediately submit proof upon resolution of the appeal that the violation has been or is being corrected to the satisfaction of the regulatory agency or the permittee will cease operations.

(c) Except as provided in ARM 17.24.144(1)(f) and 17.24.146(2), the permittee shall maintain in effect at all times a bond in the amount established by the department. Upon failure of the permittee to maintain such bond coverage because of expiration or cancellation of bond, the permit is suspended and the permittee shall cease mining operations until substitute bond is filed with and approved by the department. (History: 82-4-321, MCA; IMP, 82-4-335, 82-4-336, 82-4-351, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.118 ANNUAL REPORT (1) Each permittee shall file an annual report with the department and pay an annual fee of \$100 within a time period specified in 82-4-339, MCA, until such time as full bond is released. No less than 30 days prior to the permit anniversary date for the annual report, the department shall notify the permittee in writing that an annual report and renewal fee is due.

(2) The annual report must include the information outlined under 82-4-339, MCA. In addition, the annual report must include:

(a) the number of acres of land affected by the operation during the preceding year and cumulatively;

(b) the extent of backfilling and grading performed during the preceding year and cumulatively;

(c) the area of land planted;

(d) the type of planting or seeding;

(e) the mixtures and amounts seeded;

(f) the species, location, and method of planting for site or species specific plantings;

(g) the date of seeding or planting;

(h) cumulative acres reseeded to date;

(i) cumulative acres of completed reclamation and the date each increment was completed; and

(j) maps showing the information required in (2)(a) through (i).

(3) Each annual report must include an inventory of soils volumes which includes:

(a) cubic yards salvaged in the preceding year and cumulatively;

(b) cubic yards to be salvaged in the coming year;

(c) cumulative volume of soils contained in stockpiles; and

(d) replaced soil depths and volumes.

(4) Each annual report for those operations using cyanide or other metal leaching solvents or reagents or having the potential to generate acid must provide a narrative summary of water balance conditions during the preceding year and identify excess water holding capacity at the time of the annual report.

(5) When incremental bond has been approved, additional bond must be submitted, in the amount required, with the annual report and the status of incremental bonding must be described.

(6) If changes in facilities have occurred in the preceding year, the annual report must, pursuant to 82-4-339(1)(f), MCA, update the permit map required under ARM 17.24.115. The updated map must depict all approved surface features, as required by the department, in or associated with the permit area, reproduced at a scale applicable for field use.

(7) If cultural resource mitigations identified in the permit will be ongoing through the life of the operation, the annual report must include an updated cultural resource management table, including a list of sites mitigated and disturbed in the preceding year and sites to be mitigated and disturbed in the coming year.

(8) If comprehensive water monitoring is required by the permit, each annual report must include an evaluation of water monitoring reports submitted during the preceding year. The evaluation must include trend analyses for those key site-specific parameters required by the department in the permit.

(9) If site-specific geologic conditions identified in the permit indicate the need for geologic monitoring, each annual report must include monitoring results and must report materials balances as required in the permit.

(10) If site-specific closure requirements identified in the permit include monitoring for cyanide or other metal leaching solvent or reagent neutralization, acid rock drainage development, or similar occurrences, the annual report must include an evaluation of monitoring and testing data required in the permit for closure under 82-4-335, MCA.

(11) Each annual report must include the names of key personnel for maintenance and monitoring if the operation is shut down.

(12) Each annual report must include any other relevant information required by the permit.

(13) The department shall, by certified mail, notify a permittee, who fails to file an annual report and fee as required by this rule, that the permit will be suspended if the report and fee are not filed within 30 days of receipt of the notice.

(14) If a permittee fails to file an annual report and fee within 30 days of receipt of a notice, the department shall suspend the permit. (History: 82-4-321, MCA; IMP, 82-4-335, 82-4-336, 82-4-337, 82-4-338, 82-4-339, 82-4-362, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2000 MAR p. 473, Eff. 2/11/00; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.119 PERMIT AMENDMENTS (1) An application for a major amendment must:

(a) contain a summary of changes in disturbances, in resources affected, and in construction, operating, reclamation, monitoring, and contingency plans;

(b) provide dated replacement or supplemental resource data, plans, and maps as outlined in ARM 17.24.115, or cross reference applicable data, plans, or maps in the previously permitted plan of operation, in order to identify the existing environment and resources affected, as well as changes in permit boundaries, in total disturbances, and in construction, operating, reclamation, monitoring, and contingency plans;

(c) identify any additional resource data necessary to the evaluation of the proposed amendment;

(d) provide an updated or comprehensive facilities map; and

(e) clearly indicate on the facilities map all bonding areas subject to pre-July 1, 1974, bonding levels. No action under this subsection affects a bond in effect under pre-July 1, 1974, bonding levels.

(2) For an application for a major amendment, the department shall implement the application, notice and hearing requirements for new permits pursuant to 82-4-337 and 82-4-353, MCA, and prepare necessary environmental analyses pursuant to the Montana Environmental Policy Act.

(3) An application for minor amendment must:

(a) contain a summary of proposed changes in sufficient detail for the department to determine whether further environmental analysis under Title 75, chapter 1, MCA, is required;

(b) contain dated replacement pages and necessary supplemental resource data and plans, and maps in order to identify changes in permit boundaries, total disturbances, and plans;

(c) contain an updated or comprehensive facilities map;

(d) contain a statement of the applicant's rationale for asserting nonsignificance pursuant to 82-4-337(7), MCA;

(e) identify previous environmental analyses relevant to the amendment; and

(f) clearly indicate on the facilities map all bonding areas subject to pre-July 1, 1974, bonding levels. No action under this section affects a bond in effect under pre-July 1, 1974, bonding levels.

(4) For a minor amendment, the department shall not implement the application, notice and hearing requirements for new permits pursuant to 82-4-337 and 82-4-353, MCA. The department shall provide the permittee with a notice of decision on the adequacy of the minor amendment application within 30 days of receipt of the application. (History: 82-4-321, 82-4-337, 82-4-342, MCA; IMP, 82-4-337, 82-4-342, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.120 PERMIT REVISIONS (1) An application for revision must include:

- (a) a general summary explaining the revision;
- (b) a statement of the applicant's rationale for asserting nonsignificance pursuant to 82-4-337(7), MCA;
- (c) identification of previous environmental analyses relevant to the revision;
- (d) a reference to prior commitments to topsoil salvage, sediment control, reclamation, and other previously approved plans or standards that are applicable to the revision;
- (e) documentation of the adequacy of existing bonding, if appropriate;
- (f) updated replacement pages and permit map for the permitted plan of operations;
- (g) any necessary construction, operating, reclamation, monitoring, and contingency plans; and
- (h) an updated or comprehensive facilities map that clearly indicates all areas subject to pre-July 1, 1974, bonding levels. No action under this subsection affects a bond in effect under pre-July 1, 1974, bonding levels.

(2) The department shall provide the permittee with a notice of adequacy of proposed revisions within 30 days of receipt of the application. (History: 82-4-321, MCA; IMP, 82-4-337, 82-4-342, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.121 PERMIT REVIEWS (1) At any time during the life of an operation, the department may review an operating permit.

(2) If the department determines that the modification of the reclamation plan is authorized under 82-4-337, MCA, it may require such modification under the procedures of (3) through (6).

(3) The department shall send an explanation of the need for modification and a conceptual plan for modification to the permittee, by certified mail, and provide opportunity for hearing, pursuant to Title 2, chapter 4, part 6, MCA.

(4) The permittee shall respond to the department with a request for hearing or a proposed schedule for modification or revision, not to exceed one year, within 30 days of receipt of a letter from the department.

(5) The department may extend the one-year time frame or the time for hearing request for good cause documented by the permittee in writing.

(6) A modification must be submitted in the form of an amendment or a revision and the department shall process the applicant's submittal in accordance with ARM 17.24.119 or 17.24.120. (History: 82-4-321, MCA; IMP, 82-4-337, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

17.24.122 PERMIT ASSIGNMENT (1) The department may approve the assignment of a permit if the requirements of (2) and (3) are met.

(2) The permittee shall:

(a) provide the department with a completed application on a form, provided by the department, which includes:

(i) the name and address of the proposed assignee and the name and address of that person's resident agent, if any; and

(ii) the same information as is required in 82-4-335(4), (8), and (9), MCA, for applications for new permits.

(3) The assignee shall:

(a) commit in writing to conduct the operations in full compliance with the terms and conditions of the permit; and

(b) provide sufficient bond to guarantee performance of the Act, this subchapter and the permit. (History: 82-4-321, MCA; IMP, 82-4-335, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.123 PERMIT CONSOLIDATION (1) In order to facilitate management of multiple permits for a contiguous area, a permittee may, with department approval, consolidate permits.

(2) In order to obtain permit consolidation, the permittee must submit an application containing the following information:

(a) an explanation of the purpose of the consolidation and a summary of cumulative disturbances;

(b) a single map showing the entire proposed permitted area;

(c) a table showing the consolidated acreage of permitted areas, total permitted disturbance, and total acreage reclaimed to date;

(d) an updated facilities map showing all facilities modifications that have occurred since the issuance of the individual permits. This map may be combined with the permit area map required under (b) above if there is no loss in legibility;

(e) a consolidated bonding map showing what areas, if any, are subject to pre-July 1, 1974, bonding levels and showing which bonds cover which areas; and

(f) a consolidated operating and reclamation plan and supporting maps, showing, as appropriate, the area to which each plan applies. No action under this subsection affects a bond in effect under pre-July 1, 1974, bonding levels.

(3) Following consolidation, annual reports must be submitted on the renewal date of the oldest of the permits to be consolidated. (History: 82-4-321, MCA; IMP, 82-4-335, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

Rules 17.24.124 through 17.24.127 reserved

17.24.128 INSPECTIONS: FREQUENCY, METHOD, AND REPORTING

- (1) The department shall conduct an inspection:
 - (a) at least once per calendar year for each permitted operation; and
 - (b) at least three times per year for each active operation that:
 - (i) uses cyanide or other metal leaching solvents or reagents;
 - (ii) has a permit requirement to monitor for potential acid rock drainage; or
 - (iii) exceeds 1000 acres in permit area.
- (2) The department shall provide copies of operating permit inspection reports to any appropriate state or federal land managing agency, if requested by the agency.
- (3) The department shall provide a copy of each report to the operator.
(History: 82-4-321, MCA; IMP, 82-4-337, 82-4-339, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

17.24.129 INSPECTIONS: RESPONSE TO CITIZEN COMPLAINTS

- (1) Any person may request an inspection by the department of any operation by furnishing the department with a signed statement, or an oral report followed by a signed statement, giving the department reason to believe that there exists a violation of the Act, the rules adopted pursuant thereto, the permit, the license, or the exclusion; or that there exists a condition or practice that creates an imminent danger to the public or that is causing or can be reasonably expected to cause a significant, imminent environmental harm to land, air, or water resources. The statement must identify the basis for the allegation or provide corroborating evidence. The statement must be placed in the alleged violator's file and becomes a part of the permanent record. The identity of the person supplying information to the department must remain confidential with the department, if requested by that person.
- (2) If the report provides the information required above and the department determines the request to present sufficient evidence to warrant a special inspection, the department shall conduct an inspection to determine whether the condition, practice, or violation exists or existed.
- (3) Within 30 days of receipt of the requestor's written statement, the department shall send the requestor and the alleged violator a written response which includes the following:
 - (a) if an inspection was made, a description of the enforcement action taken, or, if no enforcement action was taken, an explanation of why no enforcement action was taken;
 - (b) if no inspection was made, an explanation of the reason why. (History: 82-4-321, MCA; IMP, 82-4-337, 82-4-354, MCA, and Article II, Sec. 9, Montana Constitution; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

Rules 17.24.130 and 17.24.131 reserved

17.24.132 ENFORCEMENT: PROCESSING OF VIOLATIONS AND PENALTIES

(1) Except as provided in (4), the department shall send a violation letter for a violation of the Act, this subchapter, or the permit, license, or exclusion. The violation letter must be served and must state that the alleged violator may, by filing a written response within a time specified in the notice, provide facts to be considered in further assessing whether a violation occurred and in assessing the penalty under (2).

(2) The department may issue a notice of violation and administrative order for a violation identified in a violation letter. The administrative order may assess a penalty, require corrective action, or both.

(3) The alleged violator may, within 30 days of service of the notice of violation and order, respond in writing and may request an informal conference, a contested case hearing, or both, on the issues of whether the violation occurred, whether the corrective action ordered by the department is reasonable, and whether the penalty assessed is proper.

(4) If a contested case hearing has not been requested within 30 days of the date of service of the order, the notice of violation and order become final. If a contested case hearing has been requested, the board shall hold a hearing, make the findings of fact, issue the decision, and, if a violation is found, order payment of any penalty as provided in 82-4-361, MCA. (History: 82-4-321, MCA; IMP, 82-4-337, 82-4-339, 82-4-361, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; AMD, 1996 MAR p. 2586, Eff. 10/4/96; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2006 MAR p. 1139, Eff. 5/5/06.)

17.24.133 ENFORCEMENT: ABATEMENT OF VIOLATIONS AND PERMIT SUSPENSION (1) The director shall immediately issue an order suspending the license or permit for each violation of the Act, this subchapter, the license, or the permit, that is creating an imminent danger to the health or safety of the persons outside the permit area.

(2) The director may, after opportunity for an informal conference, suspend a permit or license for a violation of the Act, this subchapter, or the license or permit that:

(a) may reasonably be expected to create a danger to the health or safety of persons outside the permit area;

(b) may reasonably be expected to cause significant environmental harm to land, air, or water resources; or

(c) remains unabated subsequent to the deadline contained in a corrective action order. (History: 82-4-321, MCA; IMP, 82-4-357, 82-4-361, 82-4-362, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; AMD, 1996 MAR p. 2586, Eff. 10/4/96; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2006 MAR p. 1139, Eff. 5/5/06.)

17.24.134 ENFORCEMENT: ASSESSMENT OF PENALTIES (1) The department shall consider the factors identified in 82-4-1001, MCA, in determining the amount of a penalty for a violation. (History: 82-4-321, 82-4-361, MCA; IMP, 82-4-361, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; AMD, 1996 MAR p. 2586, Eff. 10/4/96; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2006 MAR p. 1139, Eff. 5/5/06.)

Rule 17.24.135 reserved

17.24.136 ORDERS: ISSUANCE AND SERVICE (1) Orders issued pursuant to the Act must be served upon the person to whom it is directed promptly after issuance by:

- (a) delivering a copy of the order in person to the violator; or
- (b) sending a copy of the order by certified mail to the violator at the address on the violator's application for a license or permit or exclusion.

(2) Service is complete upon tender of the order in person. Service by mail is complete within three business days after the date of mailing and is not incomplete because of refusal to accept. (History: 82-4-321, MCA; IMP, 82-4-341, 82-4-357, 82-4-361, 82-4-362, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; AMD, 1996 MAR p. 2586, Eff. 10/4/96; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2006 MAR p. 1139, Eff. 5/5/06.)

17.24.137 NOTICES AND ORDERS: EFFECT (1) Reclamation operations and other activities intended to protect public health and safety and the environment must continue during the period of any suspension order unless otherwise provided in the order.

(2) If a suspension order will not completely abate the imminent danger to the health or safety of persons outside the permit or license area in the most expeditious manner physically possible, the director or the director's authorized representative shall impose affirmative obligations on the person to whom it is issued to abate the condition, practice, or violation. The order must specify the time by which abatement must be accomplished and may require, among other things, the use of existing or additional personnel and equipment.

(3) A notice or order may not be vacated because of inability to comply.

(4) If a permit or license has been suspended or revoked, the operator or licensee may not conduct any operations or prospecting pursuant to the permit or license and shall:

(a) if the permit or license is revoked, complete reclamation within the time specified in the order;

(b) if the permit or license is suspended, abate all conditions, practices, or violations, as specified in the order. (History: 82-4-321, MCA; IMP, 82-4-361, 82-4-362, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

Rules 17.24.138 and 17.24.139 reserved

17.24.140 BONDING: DETERMINATION OF BOND AMOUNT (1) The department shall require submission of bond in the amount of the estimated cost to the department if it had to perform the reclamation, contingency procedures and associated monitoring activities required of an operator subject to bonding requirements under the Act, the rules adopted thereunder, and the permit, license or exclusion. This amount is based on the estimated cost to the state to ensure compliance with Title 75, chapters 2 and 5, MCA, the Act, the rules adopted thereunder, and the approved permit, license or any exclusion and shall include:

(a) costs estimated by using current machinery production handbooks and publications or other documented costs acceptable to the department;

(b) the additional estimated costs to the department which may arise from additional design work, applicable public contracting requirements or the need to bring personnel and equipment to the operating area after its abandonment by the operator;

(c) an additional amount based on factors of cost changes during the preceding five years for the types of activities associated with the reclamation to be performed; and

(d) the additional estimated cost to the department which may arise from management, operation, and maintenance of the site upon temporary or permanent operator insolvency or abandonment, until full bond liquidation can be effected.

(2) The total bond amount calculated by the department must be in place and accepted by the department prior to issuance of the permit, license, or exclusion unless:

(a) the applicable plan identifies phases or increments of disturbance which may be individually identified and for which individual, incremental bonds may be calculated. The plan must provide for bonding increments to be submitted with the annual report and must expressly state that the operator, licensee or small miner may not proceed to the next phase or increment until the bond is in place and has been approved in writing by the department; or

(b) mining will proceed through a progression of contiguous pits and the plan provides for concurrent backfill. In this case, the bond must include the amount necessary to backfill the largest volume pit.

(3) An incremental bond proposal must not be accepted if the operator has received a bonding noncompliance, notice of violation for exceeding the small miner or other acreage limitations, or a notice of violation for conducting activities outside the bonded operating area. This prohibition does not apply if the violation is vacated or if a court rules that a violation did not occur.

(4) Unless the provisions of the bond provide otherwise, the line items in the bond calculations are estimates only and are not limits on spending of any part of the bond to complete any particular task subsequent to forfeiture of the bond or settlement in the context of bond forfeiture proceedings.

(5) An operator may submit bond higher than the amount required by the department. The extra amount remains unobligated to any disturbance until applied against disturbances which result from additional activities approved under an operating permit, license, or exclusion.

(6) Bond released from completed activities may not be applied to subsequent activities or increments until the department has inspected the site, provided public notice and opportunity for comment on the release, and approved the request for release in compliance with 82-4-338, MCA. (History: 82-4-321, MCA; IMP, 82-4-338, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2000 MAR p. 473, Eff. 2/11/00; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.141 BONDING: ADJUSTMENT OF AMOUNT OF BOND (1) The amount of the performance bond must be reviewed for possible adjustment as the disturbed acreage is revised, methods of mining operation change, standards of reclamation change or when contingency procedures or monitoring change.

(2) The department shall conduct an overview of the amount of each bond annually and shall conduct a comprehensive bond review at least every five years. The department may conduct additional comprehensive bond reviews if, after modification of the reclamation or operation plan, and annual overview, or an inspection of the permit area, the department determines that an increase of the bond level may be necessary.

(3) If, at the time of an amendment under ARM 17.24.119, a comprehensive bond review is completed, the next comprehensive bond review must occur not more than five years after the issuance of the amendment.

(4) The department shall notify the operator of any proposed bond adjustment and provide the operator an opportunity for an informal conference on the adjustment.

(5) For bond reduction requests by the operator for release of undisturbed land, the operator shall submit a map of the area in question, revise the appropriate active operation maps and document that the area has not been disturbed as a result of previous operating activities. The department shall then conduct an inspection of the proposed area before responding to the request.

(6) An operator or an interested party may request an adjustment of the required performance bond amount upon submission of evidence to the department demonstrating that the method of operation or other circumstances will change the estimated cost to the department to complete the reclamation, contingency procedures, or monitoring activities and therefore warrant a change in the bond amount.

(7) A bond filed for an operating permit obtained under 82-4-335, MCA, may not be released or decreased until the public has been provided an opportunity for a hearing and a hearing has been held if requested. The department shall provide reasonable statewide and local notice of the opportunity for hearing including, but not limited to, circulation. The department shall provide a 30-day comment period in the notice. A request for hearing must be submitted to the department in writing within the comment period. (History: 82-4-321, MCA; IMP, 82-4-338, 82-4-342, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

17.24.142 BONDING: REPLACEMENT OF BOND (1) The department may allow an operator to replace existing surety or collateral bonds with other surety or collateral bonds, if the liability that has accrued against the operator is transferred to such replacement bonds.

(2) The department may not release an existing performance bond until the operator has submitted and the department has approved an acceptable replacement performance bond. A replacement of performance bond pursuant to this rule does not constitute a release of bond under 82-4-338, MCA. (History: 82-4-321, MCA; IMP, 82-4-338, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

17.24.143 BONDING: FORM OF BOND (1) The form for the performance bond must be as provided by the department. The department shall allow for a surety bond or a collateral bond.

(2) Liability under any bond, including separate bond increments and indemnity agreements applicable to a single operation, must extend to the entire bonded area. (History: 82-4-321, MCA; IMP, 82-4-338, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

17.24.144 BONDING: SURETY BONDS (1) In addition to the requirements of 82-4-338, MCA, surety bonds are subject to the following requirements:

(a) The department may not accept a surety bond in excess of 10% of the surety company's capital surplus account as shown on a balance sheet certified by a certified public accountant.

(b) The department may not accept a surety bond from a surety company for any person, on all permits held by that person, in excess of three times the company's maximum single obligation as provided in (a) above.

(c) The department may not accept a surety bond from a surety company for any person, on all permits held by that person, unless that surety is registered with the state auditor and is listed in the United States Department of the Treasury Circular 570 as revised.

(d) A power of attorney must be attached to the surety bond.

(e) The surety bond must provide a mechanism for the surety company to give prompt notice to the department and the operator of:

(i) any action alleging bankruptcy or insolvency of the surety or violation that would result in suspension or revocation of the license of the surety;

(ii) cancellation by the operator; and

(iii) cancellation or pending cancellation by the surety.

(f) Upon incapacity of a surety by reason of bankruptcy, insolvency or suspension or revocation of its license, the operator shall be deemed to be without bond coverage and shall promptly notify the department in the manner described in the bond. The department, upon notification, shall, in writing, notify the operator of a reasonable period, not to exceed 90 days, to replace bond coverage. If an adequate bond is not posted by the end of the period allowed, the operator shall cease mineral extraction, comply with the provisions of 82-4-336(1), MCA, and immediately commence reclamation in accordance with the Act, this subchapter and the reclamation plan. Mining operations must not resume until the department has determined that an acceptable bond has been posted.

(g) Whenever operations are abandoned concurrent with cancellation of the bond, the department must reclaim the site and forfeit the bond within two years, consistent with 82-4-341, MCA, for any reclamation obligation incurred in the reclamation of the site. (History: 82-4-321, MCA; IMP, 82-4-338, 82-4-341, 82-4-360, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD; 2000 MAR p. 473, Eff. 2/11/00.)

17.24.145 BONDING: CERTIFICATES OF DEPOSIT (1) The department may accept as bond an assignment of a certificate of deposit in a denomination not in excess of \$100,000, or the maximum insurable amount as determined by FDIC and FSLIC, whichever is less. The department may not accept a combination of certificates of deposit for one operator on one institution in excess of that limit.

(2) The department may accept only automatically renewable certificates of deposit from a United States bank.

(3) The department shall require the operator to deposit sufficient amounts of certificates of deposit, to assure that the department will be able to liquidate those certificates prior to maturity, upon forfeiture, for the amount of the bond required pursuant to ARM 17.24.140 and 17.24.141.

(4) The department shall require that each certificate of deposit be made payable to or assigned to the department, both in writing and in the records of the bank issuing the certificate. The department shall require banks issuing these certificates to waive all rights of setoff or liens against these certificates. (History: 82-4-321, MCA; IMP, 82-4-338, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

17.24.146 BONDING: LETTERS OF CREDIT (1) The department may accept as a bond a letter of credit subject to the following conditions:

(a) The letter must be issued by a bank organized or authorized to do business in the United States.

(b) The letter must be irrevocable prior to a release by the department pursuant to 82-4-338, MCA.

(c) The letter must be payable to the department in part or in full upon demand and receipt from the department of a notice that the person has failed to comply with a provision of the Act, the rules adopted thereunder, or the permit, license, or exclusion, the failure of which authorizes forfeiture of the bond under the Act.

(d) The letter of credit must provide that, upon expiration, if the department has not notified the bank in writing that substitute bond has been provided or is not required, the bank will immediately pay the department the full amount of the letter less any previous drafts.

(e) The letter must not be for an amount in excess of 10% of the bank's capital surplus account as shown on a balance sheet certified by a certified public accountant.

(f) The department may not accept a letter of credit from a bank for any person, on all permits, licenses, or exemptions held by that person, in excess of three times the company's maximum single obligation as provided in (e) above.

(2) If the department determines that the bank has become unable to fulfill its obligations under the letter of credit, the department shall, in writing, notify the operator and specify a reasonable period, not to exceed 90 days, to replace bond coverage. If an adequate bond is not posted by the end of the period allowed, the operator shall cease mineral extraction and shall comply with the provisions of 82-4-341, MCA, and shall immediately begin to conduct reclamation operations in accordance with the Act, this subchapter and reclamation plan. Mining operations must not resume until the department has determined that an acceptable bond has been posted. (History: 82-4-321, MCA; IMP, 82-4-338, 82-4-341, 82-4-360, MCA; NEW, 1994 MAR p. 2952, Eff. 11/11/94; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

Rules 17.24.147 through 17.24.149 reserved

17.24.150 ABANDONMENT OR COMPLETION OF OPERATION (1) For the purposes of administering the Act the department will presume that an operation is abandoned or completed (and thus subject to the reclamation time schedule outlined in 82-4-336, MCA) as soon as ore ceases to be extracted for future use or processing. Should the operator wish to rebut said assumption, the operator must provide evidence satisfactory to the department that the operations have not in fact been abandoned or completed.

(2) Documentation of any of the following situations will be adequate evidence of intent not to abandon operations:

- (a) the mine or mill work force is on strike while negotiating a new contract;
- (b) the mine or mill is shut down because of some failure of the transportation network in moving ore or processed material;
- (c) the mine or mill is shut down because of a natural catastrophe and plans to resume operations are being formulated;
- (d) the mine or mill is seasonally shut down due to predictable annual variance in the mined product's market or because of inclement weather or seasonal inaccessibility;
- (e) the mine or mill is shut down for maintenance or the construction of new facilities;
- (f) the mine or mill is forced to temporarily shut down because of violation of other state or federal laws and efforts are being made to remedy the cause of the violation.

(3) At the discretion of the department, the following evidence and any other relevant evidence may be satisfactory to show intent to resume operations:

- (a) exhibition of drill core and accompanying assay reports to show that ore minerals still remain in the mine and that they are present in veins or accumulations of sufficient size, grade and accessibility to warrant continued development. Geological, geochemical or geophysical indications of valuable mineralization sufficient to warrant further development or mining will also be considered by the department;
- (b) continued employment of a maintenance crew to dewater the mine or replace timbers, etc.;
- (c) data recording present and predicted commodity prices, labor and transportation costs, etc., or any other evidence which may show that mining may soon resume on a profitable basis. Board comment: It is recognized that "abandonment or completion of mining" under the operating permit (see 82-4-336, MCA) is an action commonly predicated upon complex and changing economic circumstances; that cessation of mining need not mean abandonment or completion; and that short of obtaining an operator's records and examining the mine development drill core, the department may be unable to determine the operator's true intent. (History: 82-4-321, MCA; IMP, 82-4-336, MCA; Eff. 12/31/72; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

17.24.151 ABANDONED PITS: OBJECTIONABLE EFFLUENTS
(REPEALED) (History: 82-4-321, MCA; IMP, 82-4-336, MCA; Eff. 12/31/72;
TRANS, from DSL, 1996 MAR p. 2852; REP, 1999 MAR p. 640, Eff. 4/9/99.)

17.24.152 DISCLOSURE OF INFORMATION (REPEALED) (History: 82-4-
321, MCA; IMP, 82-4-336, MCA; Eff. 12/31/72; TRANS, from DSL, 1996 MAR p.
2852; REP, 1999 MAR p. 640, Eff. 4/9/99.)

17.24.153 GENERAL COMPLIANCE (1) The operator shall comply with all
federal and state laws, and such rules and regulations as are promulgated by the
board under the Act. (History: 82-4-321, MCA; IMP, 82-4-336, MCA; Eff. 12/31/72;
TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

Rules 17.24.154 through 17.24.156 reserved

17.24.157 BLASTING OPERATIONS: COMPLAINT PROCEDURE

- (1) Affected parties, who are owners of an interest in real property or individuals who reside within an area subject to property damage or safety hazards related to the use of explosives by an operator may file a signed and dated complaint related to use of explosives associated with hard rock mining or exploration activities as follows:
- (a) Complaints must be filed in writing with the department.
 - (b) Complaints must include the following information:
 - (i) name, mailing address, street address and phone number of the person or persons filing complaint;
 - (ii) statement of interest in real property or identification of residence within an area subject to property damage or safety hazards related to use of explosives;
 - (iii) name of person or company using explosives, if known;
 - (iv) detailed location of explosives use;
 - (v) date and time of use;
 - (vi) if property damage is alleged, type of damage including:
 - (A) type of structure;
 - (B) nature of damage;
 - (C) age of structure;
 - (D) rationale for correlating damage to use of explosives; and
 - (vii) if safety hazard is alleged, type of safety hazard.
 - (c) The department shall respond to all complaints by notifying each person who files a complaint whether the department considers the complaint to be credible. A credible complaint is a complaint addressing all requirements listed in (b) in a manner that is not false or without basis on its face.
- (2) The department shall promptly investigate a credible complaint by:
- (a) immediately providing the operator with a copy of a credible complaint;
 - (b) documenting the alleged damage or safety hazard with photographs and engineering reports and interviews as appropriate;
 - (c) requesting and evaluating all available information from the operation allegedly responsible for the problem;
 - (d) investigating concurrent activity which may have caused or contributed to the problem identified;
 - (e) conducting appropriate tests, which may include, but are not limited to:
 - (i) seismograph and airblast monitoring;
 - (ii) geologic investigation; and
 - (iii) evaluation of the structural integrity of the structure; and
 - (f) making written findings, including, if possible, a determination of whether any of the standards in ARM 17.24.159(6)(a), (11)(a), or (15)(c), were exceeded.
- (3) The department shall mail a copy of its written findings to the complainant and the operator. (History: 82-4-321, MCA; IMP, 82-4-356, MCA; NEW, 1990 MAR p. 1470, Eff. 7/27/90; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.158 BLASTING OPERATIONS: PARTICIPATION AND COOPERATION OF PERSONS USING EXPLOSIVES (1)

Whenever the department notifies the operator that it has received a credible complaint pursuant to ARM 17.24.157 concerning a use of explosives, the operator shall make available to the department, within 15 days of receipt of a written request, such information as the department may request, including, but not limited to, the following:

(a) identification of persons conducting blasting activities and their level of training and experience;

(b) preblasting survey information, if available;

(c) blasting schedule and records identifying as accurately as possible location of the blasting sites and timing of blasts; and

(d) seismograph measurements, if available.

(2) The operator shall make available for interviewing by the department and its consultants all persons involved in the blasting operations.

(3)(a) After the department conducts its preliminary investigation by reviewing the records supplied by the operator using explosives and performs its own appropriate tests, if needed, the department shall do one or more of the following:

(i) if the department's preliminary investigation has determined that property damage or a safety hazard could not have occurred from blasting activities, the department shall give written notification of its findings to all concerned parties;

(ii) if, after its preliminary investigation, the department cannot determine whether property damage or a safety hazard may have occurred as the result of blasting, or if it appears damage or a safety hazard has occurred as the result of blasting, the department shall perform one or more of the following:

(A) continue to conduct its own tests;

(B) conduct additional investigations, including, but not limited to, geologic structure, frequency, and delay sequencing; or

(C) hire a third party consultant to conduct a survey of the blasting operation and, if necessary, structures.

(b) A survey prepared under (a)(ii)(C) must be conducted by a recognized expert on the forces created by blasting and must document the condition of the structure, any blasting damage, any causes for the damage other than blasting, and whether blasting by the operator exceeded the standards contained in ARM 17.24.159(2)(f)(i), (2)(k)(i) and (2)(o)(iii). Assessments of structures such as pipes, cables, transmission lines, and wells and other water systems must be limited to surface condition and readily available data. Special attention must be given to the condition of wells and other water systems used for human, animal, or agricultural purposes and to the quantity and quality of the water.

(c) The recognized expert must submit the expert's qualifications to the department for review. At a minimum, the expert must:

(i) have field experience covering at least five previous blasting-related projects; and

(ii) provide a brief summary of the number and type of preblast and postblast investigations along with any conclusions or recommendations resulting from those investigations.

(d) The department shall require that a written report of the survey be prepared and signed by the person who conducted the survey. If the report finds that the standards were exceeded or that the blasting caused damage or safety hazard, the report must include recommendations of any special conditions or proposed adjustments to the blasting procedure that should be incorporated into the blasting plan to prevent damage or hazard. The department shall provide a copy of the report to the complainant and the operator.

(4)(a) If the third party investigation demonstrates that the operator exceeded the standards contained in ARM 17.24.159(2)(f)(i), (2)(k)(i) or (2)(o)(iii), or that the damages or a hazard resulted from blasting by the operator, the operator shall reimburse the department for all reasonable fees and expenses it has paid to the third-party consultant.

(b) The operator may file a response, including proposed mitigation measures, to the written report submitted pursuant to (3)(d) within 15 days from receipt of the report.

(c) The department shall respond to the operator in a timely manner with directives and fees for all reasonable expenses incurred in the third-party investigations. (History: 82-4-321, MCA; IMP, 82-4-356, MCA; NEW, 1990 MAR p. 1470, Eff. 7/27/90; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

17.24.159 BLASTING OPERATIONS: ORDERS OF THE DEPARTMENT

(1) If the department determines that the preponderance of evidence indicates that property damage or safety hazards are or were caused by blasting associated with exploration or mining activities by an operator, the department shall issue an order. In the event the order is not complied with, the department shall issue an order imposing requirements reasonably necessary to prevent property damage or safety hazards.

(2) The department may require as many of the following requirements as are reasonably necessary for this purpose:

(a) Each operator shall comply with all applicable state and federal laws in the use of explosives.

(b) All blasting operations must be conducted by experienced, trained, and competent persons who understand the hazards involved.

(c) A record of each blast occurring over a period to be determined by the department, including seismograph records, must be prepared and retained for at least three years and must be available for inspection by the department on request.

Blasting records must be accurate and completed in a timely fashion. The records must contain the following data:

- (i) name of the operator conducting the blast;
- (ii) location, date, and time of the blast;
- (iii) name, signature, and, if applicable, license number and appropriate certification program name of blaster-in-charge;
- (iv) direction and distance, in feet, to the nearest inhabited building or structure either:
 - (A) not located in the permit area; or
 - (B) not owned nor leased by the person who conducts the mining activities;
- (v) weather conditions, including temperature, wind direction and approximate wind velocity;
- (vi) type of material blasted;
- (vii) number of holes, burden, and spacing;
- (viii) diameter and depth of holes;
- (ix) types of explosives used;
- (x) total weight of explosives used;
- (xi) maximum weight of explosives detonated within any eight-millisecond period;
- (xii) maximum number of holes detonated within any eight-millisecond period;
- (xiii) initiation system;
- (xiv) type and length of stemming;
- (xv) mats or other protections used;
- (xvi) type of delay detonator and delay periods used;
- (xvii) sketch of the delay pattern;
- (xviii) number of persons in the blasting crew;
- (xix) seismographic and airblast records, where required, including:

(A) the calibration signal of the gain setting or certification of annual calibration;

(B) seismographic reading, including exact location of seismograph and its distance from the blast, airblast reading, dates and times of readings;

(C) name of the person taking the seismograph reading; and

(D) name of the person and firm analyzing the seismographic record.

(d) When blasting is conducted in an area where access is not restricted, warning and all-clear signals of different character that are audible at all points within a range of 1/2 mile from the point of the blast must be given. Each person within the permit area and each person who resides or regularly works within 1/2 mile of the permit area must be notified of the meaning of the signals through appropriate instructions. These instructions must be periodically delivered or otherwise communicated in a manner that can be reasonably expected to inform such persons of the meaning of the signals.

(e) Blasting must not eject flyrock off property controlled by the operator. Access to the blasting area and to areas where blasting effects, such as flyrock, occur, must be controlled by methods such as signs and fencing to prevent the presence of livestock or unauthorized personnel during blasting and until an authorized representative of the operator has reasonably determined:

(i) that no unusual circumstances, such as imminent slides or undetonated charges, exist; and

(ii) that access to and travel in or through the area can be safely resumed.

(f)(i) Airblast must be controlled so that it does not exceed the values specified below at any dwelling, public building, school, church, or commercial, public, or institutional structure, unless the structure is owned by the operator and is not leased to any other person. If a building owned by the operator is leased to another person, the lessee may sign a waiver relieving the operator from meeting the airblast limitations of this section.

<u>Lower Frequency limit of measuring system, Hertz (Hz) (+3dB)</u>	<u>Maximum level in decibels (dB)</u>
0.1 Hz or lower - flat response.....	134 peak.
2 Hz or lower - flat response.....	133 peak.
6 Hz or lower - flat response.....	129 peak.
C-weighted, slow response.....	105 peak dBC.

If necessary to prevent damage based upon the consultant's report, the department shall specify lower maximum allowable airblast levels than those above.

(ii) In all cases, except the C-weighted, slow-response system, the measuring systems used must have a flat frequency response of at least 200 Hz at the upper end. The C-weighted system must be measured with a Type 1 sound level meter that meets the standard American National Standards Institute (ANSI) S1.4-1971 specifications. These specifications are hereby incorporated by reference. Copies of this publication are on file with the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901.

(iii) The operator may satisfy the provisions of this subsection by meeting any of the four specifications in the chart in (i).

(iv) The operator shall conduct periodic monitoring to ensure compliance with the airblast standards. The department may require an airblast measurement of any or all blasts, and may specify the location of such measurements, except as noted in (i).

(g) Whenever the standards contained in (k)(i) and (o)(iii) have been exceeded, or whenever, based upon the consultant's report, it has been determined to be necessary to protect public safety or property, the department may require modification of blasting activities to protect:

(i) public, private or institution building, including any dwelling, school, church, hospital, or nursing facility; and

(ii) facilities including, but not limited to, disposal wells, petroleum or gas storage facilities, municipal water storage facilities, fluid transmission pipelines, gas or oil collection lines, or water and sewage lines or any active or abandoned underground mine.

(h) A blast design, including measures to protect the facilities in (g) must be submitted to the department prior to continued blasting.

(i) Flyrock, including blasted material traveling along the ground, must not be cast from the blasting vicinity more than half the distance to the nearest dwelling or other occupied structure and in no case beyond the line of property owned or leased by the permittee, or beyond the area of regulated access required under (e).

(j) Blasting must be conducted to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in the course, channel, or availability of ground or surface waters outside the permit area.

(k)(i) In all blasting operations, except as otherwise authorized in this subsection, the maximum peak particle velocity must not exceed the following limits at the location of any dwelling, public building, school, church, or commercial, public, or institutional structure:

Distance (D) from the blasting site, in feet	Maximum allowable peak particle velocity (V max) for ground vibration, in inches/second	Scaled-distance factor to be applied without seismic monitoring (Ds)
0 to 300	1.25	50
301 to 5,000	1.00	55
5,001 and beyond	0.75	65

(ii) Peak particle velocities must be recorded in three mutually perpendicular directions. The maximum peak particle velocity is the largest of any of the three measurements.

(iii) The department shall reduce the maximum peak velocity allowed if a lower standard is required, based upon the consultant's report, to prevent damage or to protect public safety because of density of population or land use, age or type of structure, geology or hydrology of the area, frequency of blasts, or other factors.

(l) If blasting is conducted in such a manner as to avoid adverse impacts on any underground mine and changes in the course, channel, or availability of ground or surface water outside the permit area, then the maximum peak particle velocity limitation of (k) does not apply at the following locations:

- (i) at structures owned by the operator and not leased to another party; and
- (ii) at structures owned by the operator and leased to another party, if a written waiver by the lessee is submitted to the department prior to blasting.

(m) An equation for determining the maximum weight of explosives that can be detonated within any eight-millisecond period is in (n). If the blasting is conducted in accordance with this equation, the peak particle velocity is deemed to be within the limits specified in (k).

(n) The maximum weight of explosives to be detonated within any eight-millisecond period may be determined by the formula

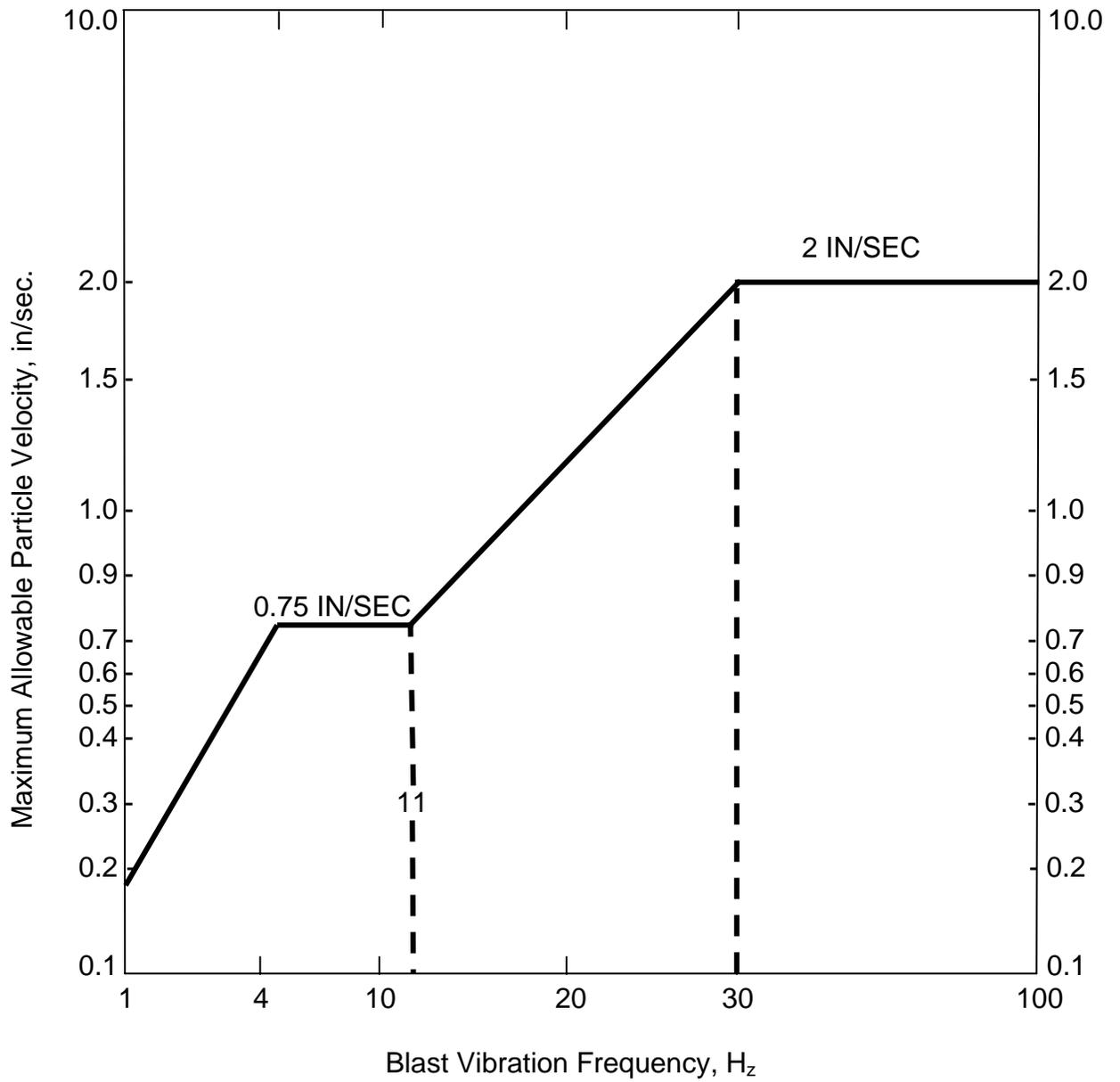
$W=(D/D_s)^2$ where W=the maximum weight of explosives, in pounds, that can be detonated in any eight-millisecond period; D=the distance, in feet, from the blast to the nearest public building or structure, dwelling, school, church, or commercial or institutional building or structure, except as noted in (l); and D_s =the scaled distance factor, using the values identified in (k).

(o)(i) Whenever a seismograph is used to monitor the velocity of ground motion and the peak particle velocity limits of (k) are not exceeded, the equation in (n) need not be used. If that equation is not used by the operator, a seismograph record must be obtained for each shot.

(ii) The use of a modified equation to determine maximum weight of explosives per delay for blasting operations at a particular site may be approved by the department, on receipt of a petition accompanied by reports including seismograph records of test blasting on the site. The department may not approve the use of a modified equation if the peak particle velocity for the limits specified in (k) are exceeded, meeting a 95% statistical confidence level.

(iii) The operator may use the ground vibration limits in Figure 1 (30 CFR 816.67(d)(4)) as an alternative to (i) and (ii), upon approval by the department.

Figure 1: Blasting Level Chart



(iv) The department may require a seismograph record of any or all blasts and may specify the location at which the measurements are to be taken. (History: 82-4-321, MCA; IMP, 82-4-356, MCA; NEW, 1990 MAR p. 1470, Eff. 7/27/90; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

Rules 17.24.160 through 17.24.164 reserved

17.24.165 MILLS AND REPROCESSING OPERATIONS: DEFINITIONS As used in this subchapter and the Act, unless the context clearly indicates otherwise, the following additional definitions apply:

(1) "Alternate land use" means, with regard to a mill facility, reclamation of a site to an alternative postmining land use where the following conditions are met:

(a) The proposed postmilling land use is compatible with adjacent land use, and applicable landowner authorization.

(b) Retention of the structure is consistent with the proposed postmining land use. This shall be documented through inclusion of a schedule showing how the proposed use will be achieved within a reasonable time after milling and will be sustained.

(c) Plans for alternate land use must be integrated with the requirements of ARM 17.24.169 for the grading and revegetation of the surrounding area.

(d) Plans must document, if appropriate, that financing, attainment, and maintenance of the alternative land use is feasible.

(e) The proposed use will:

(i) not present actual or probable hazard to public health or safety;

(ii) comply with the air and water quality acts; and

(iii) minimize adverse effects on fish, wildlife, and related environmental values.

(2) "Contingency plan" means, with regard to spilled process solution, a plan which includes, but is not limited to, steps for containment, neutralization, and removal, and identification of any associated training needs.

(3) "Description of existing environment" means a description with appropriate maps of the condition of the proposed project area prior to exploration or operation. The description shall provide, but not be limited to, a discussion which characterizes each of the following:

(a) geology;

(b) soils;

(c) vegetation including, but not limited to, canopy cover, diversity, use, and productivity;

(d) wildlife;

(e) hydrology (surface and ground water characteristics, quantity, quality, and use), including maps which identify springs, seeps, and wells within one mile of the permit boundary and three miles down gradient unless a lesser distance is justified and agreed to by the department;

(f) air quality and climate;

(g) aquatic biology;

(h) land use and ownership;

(i) recreation;

(j) cultural/historic resources identified as a result of inventory and of file searches conducted by the State Historic Preservation Office;

(k) noise;

(l) transportation;

(m) aesthetics.

(4) "Expansion of a mill facility" means disturbance of an area not previously disturbed by the milling operation, and, in the case of a waste dump, tailing impoundment, or similar facility, a change in the design capacity that will result in an increase in land disturbance at an existing mill facility. When disturbance of an area not previously disturbed by the operation occurs at a dump, impoundment or similar facility, the department may regulate the previously disturbed area to the extent necessary to achieve reclamation of the expansion area.

(5) "Facility" means any building, impoundment, embankment, waste or tailings disposal site, or other man-made structure associated with a particular activity. Mill facility means a mill and associated structures, disturbance and development.

(6) "Mill" means any facility for ore, tailings, or waste rock processing and disposal. This term does not include smelting, or refining facilities, sample collection processes, and pilot testing performed pursuant to an exploration license.

(7) "Plan" means that information submitted to the department pertaining to a proposed or ongoing milling related activity which utilized narratives, engineering designs, maps, cross-sections, or other documentation which adequately describes the activity.

(8) "Reclamation" means removal of facilities, unless an alternate land use is approved and the regrading, contouring, and revegetation of disturbed land. For the purpose of ARM 17.24.166 through 17.24.170, reclamation shall be deemed complete when the disturbed land is restored to a comparable utility and stability as that of adjacent areas, except for open pits and rock faces which may not be feasible to reclaim. Reclamation of previously disturbed areas is required only to the extent feasible given the pre-existing condition of the site.

(9) "Reclamation to the extent practicable and feasible" means, with regard to reprocessing of waste rock and tailings:

(a) where waste rock and tailings have previously been reclaimed under the Act and this subchapter, compliance with the standards set for an operating permit;

(b) where waste rock and tailings have not previously been subject to the reclamation requirements of the Act and this subchapter and are to be redisturbed under the proposed permit, the following:

(i) reclamation of any reprocessed waste rock and tails and associated facilities consistent with the standards of this definition;

(ii) salvage and replacement of available soil or suitable materials;

(iii) use of suitable materials at the surface of any reprocessed waste rock to the extent practicable;

(iv) grading of slopes to a stable angle, treating with appropriate soils amendments and vegetating with a perennial seed mix;

(v) amending and seeding the regraded site such that utility is improved over that which existed prior to reprocessing;

(vi) preservation of water quality at least to the level that existed prior to reprocessing. (History: 82-4-321, MCA; IMP, 82-4-335, 82-4-336, 82-4-337, MCA; NEW, 1990 MAR p. 1008, Eff. 6/1/90; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

17.24.166 MILLS: APPLICABILITY OF RULES TO MILLS (1) ARM 17.24.165 through 17.24.170 apply to all mills under permit pursuant to Title 82, chapter 4, part 3, MCA, on June 1, 1990, to all mills constructed or beginning operation after June 1, 1990, and to the expansion of any mill facility or complex concluded after June 1, 1990. In addition, ARM 17.24.165 through 17.24.170 apply to mills that were constructed and operated prior to June 1, 1990, and that use cyanide ore processing reagent after May 23, 1996.

(2) For mills under permit on June 1, 1990 existing bond must be upgraded at the time of the next permit amendment, unless the department requires earlier upgrading or an operator chooses to update the mill permit information and bond prior to that time. Prior to updating information, the operator shall meet with the department to determine the appropriateness of the requirements in ARM 17.24.168 to the specific situation. Any requirement determined not applicable shall be documented in the permit with the reasons for the determination.

(3) Mills constructed as a part of a new mining operation must be permitted under the mine operating permit using the information required in ARM 17.24.167 through 17.24.170. (History: 82-4-321, MCA; IMP, 82-4-304, MCA; NEW, 1990 MAR p. 1008, Eff. 6/1/90; AMD, 1995 MAR p. 2498, Eff. 11/23/95; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.167 MILLS: OPERATING PERMIT APPLICATION (1) Any person wishing to operate a mill or disturb land in anticipation of construction or operation of a mill must obtain an operating permit for each mill complex on a form prescribed by the department before disturbance of land in anticipation of construction or operation of the mill or associated facilities.

(2) Prior to receiving an operating permit, the applicant must:

(a) pay a \$500 filing fee to the department unless the mill application is associated with and submitted concurrently with a new operating permit application submitted under 82-4-335, MCA;

(b) indicate the proposed date for commencement of milling and the minerals to be milled and the conceptual life of the mill;

(c) provide a map or maps to scale of the mill area (such map must locate the proposed mill and must locate and identify streams, and proposed roads, railroads, and utility lines in the immediate area and residences and wells within one mile of the permit area). All maps provided in the application must have a uniform base, a scale, and a north directional arrow;

(d) file a reclamation bond pursuant to 82-4-338, MCA;

(e) file a plan of operation including construction, operating, monitoring and contingency plans; and

(f) file a reclamation plan.

(3) The department shall provide public notice of mill applications, consistent with 82-4-353, MCA. (History: 82-4-321, MCA; IMP, 82-4-335, MCA; NEW, 1990 MAR p. 1008, Eff. 6/1/90; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.168 MILLS: OPERATING PLANS (1) An application for an operating permit pursuant to ARM 17.24.167 must contain an operating plan that contains each of the following:

(a) a description of the existing environment;

(b) a plan of operations that includes:

(i) all of the matters required by 82-4-335(3)(d) through (k), MCA, excepting the mine map;

(ii) maps enhancing narratives which use the same base and scale as required by ARM 17.24.167(2)(c); where appropriate;

(iii) a description of the design, construction, and operation of the mill, tailings, and waste rock disposal facilities;

- (iv) a list of equipment and chemicals to be used in the operation by location and task;
- (v) a description of all buildings and identification of mill design capacity;
- (vi) a description of topsoil salvage and stockpiling activities;
- (vii) a description of the general chemical processes and the purpose and amount and source of water used in the operation and the amount and disposition of any process wastewater or solutions to be disposed;
- (viii) a description of the power needs and source(s), including fuel storage sites;
- (ix) sewage treatment and facilities and solid waste disposal sites;
- (x) a description of the transportation network to be used or built during the construction and operation phases, and a listing of the type and amount of traffic at mill capacity;
- (xi) a description of the fire protection plan and the toxic spill contingency plan and a certification that notice of the filing of the plan has been provided to the state fire marshal;
- (xii) plans describing the design and operation of all diversions and impounding structures and sediment control. Descriptions shall be detailed enough to provide an accurate depiction of the safety, utility and stability of such structures;
- (xiii) a discussion of predicted noise levels by activities during construction and operational phases;
- (xiv) a discussion of the potential and known archaeological and cultural values in the area of potential environmental effect for the project and a discussion of how such values are to be given consideration;
- (xv) provisions for the prevention of wind erosion of all disturbed areas;
- (xvi) a description of the provisions for protection of off-site flora and fauna;
- (xvii) plans for the monitoring of ground water and surface water until continuous compliance with water quality standards is demonstrated, and a contingency plan in case of accidental discharge describing remedial action in cases requiring emergency action;
- (xviii) a plan for the protection of topsoil stockpiles from erosion and contamination; and

(xix) a listing of known sources and volumes of incoming ore, tailings, or waste rock.

(c)(i) anticipated employment including both direct and onsite contract employees;

(ii) if the mill is proposed to be operated in conjunction with a mine operated by applicant, personnel requirements by location and task for construction and operation phases. (Operations meeting the definition of "large scale mineral development" in 90-6-302, MCA, must also comply with the Hard Rock Impact Act, Title 90, chapter 6, part 3, MCA).

(2) Annual reports must be submitted consistent with 82-4-339, MCA, and include in addition:

(a) sources and volumes of incoming ore;

(b) volumes of tailings or waste generated;

(c) water monitoring report;

(d) remaining waste and tails capacity.

(3) Plans submitted under ARM 17.24.167, 17.24.168, and 17.24.169, must be consistent with plans filed with other permitting authorities. (History: 82-4-321, MCA; IMP, 82-4-335, MCA; NEW, 1990 MAR p. 1008, Eff. 6/1/90; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.169 MILLS: RECLAMATION PLANS (1) An application for an operating permit pursuant to ARM 17.24.167 must contain a plan that provides for the reclamation of all the land to be disturbed by the proposed milling operation and associated activities. The plan must, at a minimum, include the following:

(a) all of the requirements of a reclamation plan set forth in 82-4-303(13)(a) and (d) through (h), 82-4-336, MCA, and ARM 17.24.115;

(b) a regarding plan which leaves all disturbed areas in a stable configuration and which conforms with the proposed subsequent use of the land after reclamation.

The department may require the use of cross-sections, topographic maps or detailed narrative, or a combination of these, to ensure that the application adequately describes the proposed topography of the reclaimed land. All reclaimed slopes on materials potentially acid or toxic forming shall be graded to assure future erosion of acid and toxic forming materials offsite is prevented using prudent slope angle and length;

(c) a description of the manner in which the soil materials will be redistributed from the stockpiles to the area to be reclaimed (e.g., truck/loader, scrapers), to provide for adequate revegetation;

(d) a description of the methods by which surface and ground water will be restored or maintained to meet the criteria of Title 75, chapters 5 and 6, MCA, as amended, or rules adopted pursuant to these laws, including methods used to monitor for accidental discharge of objectionable (potential toxic or acid-producing) materials, plans for detoxification or neutralization of such materials, and remedial action plans for control and mitigation of discharges to surface or ground water;

(e) a plan for the reestablishment of vegetation which conforms with the proposed subsequent use of the land after reclamation. Such revegetation plan must consider the following:

(i) The first objective in revegetation is to stabilize the area as quickly as possible after it has been disturbed. Plants that will give a quick, protective cover and those that will enrich the soil must be given priority. Plants reestablished must be in keeping with the intended reclaimed use of the land.

(ii) Appropriate revegetation must be accomplished as soon after necessary grading as possible; however, revegetation must be performed in the proper season in accordance with accepted agricultural and reforestation practices.

(iii) In the event that any of the above revegetation efforts are unsuccessful, the permittee shall seek the advice of the department and make additional attempts, incorporating such changes and additional procedures as may be expected to provide satisfactory revegetation;

(f) a schedule describing the manner and deadlines for the removal of facilities including, but not limited to, the removal of buildings or related structures, or a plan meeting the requirements for alternative land use.

(2) The department may require additional measures necessary to ensure that the disturbed area is reclaimed in accordance with the Act. (History: 82-4-321, MCA; IMP, 82-4-335, 82-4-336, MCA; NEW, 1990 MAR p. 1008, Eff. 6/1/90; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.170 MILLS: CESSATION OR COMPLETION OF OPERATION

(1) Milling operations are presumed completed or ceased and thus are subject to the reclamation time schedule outlined in the approved reclamation plan when the mill has ceased operations for a period of two years or more. A permittee may rebut this assumption by providing evidence satisfactory to the department, consistent with ARM 17.24.150(2), that the operations have not in fact been abandoned or completed.

(2) Reclamation plans must provide that all discharges from completed operations or operations in a state of temporary cessation will be consistent with provisions of ARM 17.24.151. (History: 82-4-321, MCA; IMP, 82-4-341, MCA; NEW, 1990 MAR p. 1008, Eff. 6/1/90; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.171 REPROCESSING OF WASTE ROCK AND TAILINGS (1) The provisions of the Act and this subchapter apply to any person who after May 31, 1990, reprocesses tailings or waste rock resulting from previous mining operations. No land disturbed by a reprocessing operation before June 1, 1990, is subject to the Act and this subchapter unless reprocessing or related activities are conducted on the area after May 31, 1990, in which case the department shall require reclamation to the extent practicable and feasible.

(2) A person who institutes a new reprocessing operation after May 31, 1990, who is not a small miner must obtain an operating permit before engaging reprocessing operations or disturbing land in anticipation of these operations.

(3) A person who wishes to continue a reprocessing operation that was conducted at any time during the 12 months immediately preceding the effective date of these rules must, in order to continue those operations no later than December 1, 1990, obtain an operating permit. Operations not conducted within the 12 months immediately preceding the effective date of this rule are considered new operations for the purposes of this rule. (History: 82-4-321, MCA; IMP, 82-4-304, 82-4-335, MCA; NEW, 1990 MAR p. 1008, Eff. 6/1/90; TRANS, from DSL, 1996 MAR p. 2852.)

Rules 17.24.172 through 17.24.179 reserved

17.24.180 DEFINITIONS As used in ARM 17.24.181 through 17.24.189, unless the context indicates otherwise, the following definitions apply:

- (1) "Commence reclamation within six months" means to commence reclamation within six months or the first seasonal opportunity after mining is not resumed after a seasonal closure;
- (2) "Live stream" means a stream with flowing water;
- (3) "Pay gravel" means gravels containing sufficient mineralization to be economic;
- (4) "Plant" means a support facility, including a wash or processing plant, for a placer or dredge operation;
- (5) "Sedimentation" means solid material settled from suspension in a liquid; mineral or organic solid material that is being transported or has been moved from its site of origin by air, water, or ice, and has come to rest on the earth's surface either above or below sea level; or inorganic or organic particles originating from weathering, chemical precipitation or biological activity. (History: 82-4-321, MCA; IMP, 82-4-305, 82-4-335, MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.181 SMALL MINER PLACER AND DREDGE BONDING (1) A small miner who operates a placer or dredge mine shall post a \$10,000 bond unless the department approves a lower amount based on the criteria below or unless it is documented that a bond for reclamation is posted with another government agency.

(a) Bond must be filed in the form of a surety, payable to the state of Montana or to the state and the appropriate federal agency, a cash deposit, an assignment of certificate of deposit, letter of credit, or other surety acceptable to the department.

(b) The bond must be accompanied by an appropriate map showing the location of the mine, anticipated disturbances, and perennial streams in the vicinity.

(c) A small miner placer or dredge mine operator that posted a bond with the department prior to May 15, 1997, for a mine is not required to post a bond in excess of \$5,000 for that mine.

(2) The department shall reduce the required bonding amount if the small miner submits an operating plan documenting that the cost of reclamation to the department would be less than \$10,000. The information needed to make such a determination includes the following:

- (a) a description of the proposed mining operation and foreseeable expansion;
- (b) a description of the mine support facilities;
- (c) the type of equipment and capacity of the plant;
- (d) an estimate of pit and pond sizes and volumes of all soil, overburden and placer gravel stockpiles;

- (e) description of mining sequence and maximum acreage to be disturbed and unreclaimed at any one time at the mine being bonded;
- (f) a description of any water diversions required by the operation;
- (g) a topographic map locating mine pit, ponds, diversions, roads, process area, and stream drainages and materials storage sites. This map should include a reference to existing locatable monuments or landmarks on the ground, be one inch to 100 feet unless a different scale is approved by the department, and be based on fixed reference points so that all mapped information is interchangeable;
- (h) the depth of soil, overburden and pay zones to be excavated;
- (i) the average and maximum rate of pay gravel removal;
- (j) the length and width of roads and average size of the plant area;
- (k) any proposal to use suitable settling pond sediments as soil amendment if limited soil is available;
- (l) a proposed permanent seed mixture and rate of application (lbs/ac);
- (m) characterization of stream channel and riparian conditions for locations where disturbance is proposed;
- (n) identification of the construction method and materials to be used to reclaim soils, overburden, gravel stockpiles, and other disturbances and to reestablish functioning streams and associated floodplains where stream channels have been disturbed;
- (o) an erosion control plan which contains the appropriate elements from ARM 17.24.182;
- (p) whenever applicable, a description of the status of 404 permits issued pursuant to the federal Clean Water Act and plans of operation required by federal land management agencies;
- (q) status of 310 permit compliance, pursuant to 75-7-101, MCA, et seq., and status of Montana pollution discharge elimination permit compliance pursuant to 75-5-401, MCA, et seq. (History: 82-4-321, MCA; IMP, 82-4-305(1), MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99.)

17.24.182 (INTERPRETIVE RULE) OPERATIONAL RECOMMENDATIONS FOR SMALL MINERS (1) In order for SMES placer and dredge operators to meet the requirements of 82-4-305(1), MCA, which requires that the small miner agree in writing not to pollute or contaminate any stream, the department recommends the following best management practices as minimally necessary to assure that operations do not result in water quality violations:

- (a) Mining equipment should not be operated in a live stream or diversion, or in any manner to cause bank caving or erosion of the bank of any live stream or diversion.

(b) The amount of make-up water should be limited to only the amount required to operate the wash plant with spent water being recirculated back to the wash plant.

(c) Runoff from undisturbed areas should be minimized through use of temporary berms.

(d) Adequate temporary berms and/or natural undisturbed areas of vegetation should be placed or left as a buffer zone around diversion ditches and live streams to prevent water quality degradation and erosion of disturbed areas as a result of runoff from a ten-year, 24-hour precipitation event.

(e) During operations, care should be taken to protect streambanks and streambank vegetation, streambanks, ditches, and diversions should be lined, riprapped, or otherwise stabilized to prevent excess erosion.

(f) Roads should:

(i) be constructed to provide controlled drainage, include culverts, waterbars, and slash filters necessary to facilitate drainage and minimize erosion and be constructed to reduce concentrated flows;

(ii) be located on well-drained soils and located back from stream bottoms in order to provide a buffer zone for preventing road sediments from washing into stream channels;

(iii) be located outside slide-prone areas characterized by seeps, steep slopes, highly weathered bedrock, clay beds, concave slopes, hummocky topography, and rock layers that dip parallel to the slope;

(iv) be constructed to stabilize sloped exposed surfaces by seeding, compacting, riprapping, benching, mulching or other suitable means prior to fall or spring runoff;

(v) not be left in an erosive condition over a winter season; and

(vi) be used only minimally during wet periods and spring breakup when damage to the roads, which would result in increased sedimentation, is likely to occur.

(g) Cut-and-fill slopes should be constructed at a stable angle and stabilized by seeding, mulching, benching or other suitable means during the same season as construction.

(h) Clearing, grubbing or logging debris should not be placed in streams or used for diversions or cause water quality degradation.

(i) Diversions and impoundments should be sized to pass the ten-year, 24-hour precipitation event. Diversions should be constructed with drop structures or energy dissipators whenever necessary to prevent erosion. Diversion ditch berms should be sloped to account for site-specific conditions, including soils, climate, height of structure and existing natural slopes, and should be revegetated, riprapped, or otherwise stabilized to minimize stream sedimentation.

(j) Before winter shutdown, a small miner should take the following precautions:

(i) Diversions should be sized to pass spring runoff (minimum ten-year, 24-hour event) or streams should be returned to original channels.

(ii) Ponds should have adequate freeboard to prevent over-topping during spring runoff from direct precipitation and over-land flow. Whenever ponds are located within a flood plain and diversions are not sized to pass the ten-year, 24-hour precipitation event, ponds should be filled and reclaimed prior to onset of winter.

(iii) Soil, overburden, and tailings stockpiles should not be placed near streams, unless necessary, and, or if so placed, should be bermed at the toe to prevent erosion of sediments into streams.

(iv) Fuel storage tanks should be drained before winter shut down and should be drained and disposed of in a manner which protects adjacent streams.

(k) Dikes should be constructed around fuel storage areas to prevent a spill or discharge of fuel to any waters.

(2) A placer or dredge operator who proposes a "project", as that term is defined in 75-7-103, MCA, on a perennial stream, must comply with the requirements of the Natural Streambed and Land Preservation Act, as amended, by obtaining a permit required by the appropriate conservation district.

(3) In order for a SMES placer or dredge operator to meet the reclamation requirements for bond release, the following reclamation planning guidelines should be followed:

(a) A reclamation plan, or appropriate waiver, for all roads is necessary.

(b) The postmine land use should be identified and a reclamation timetable should be established.

(c) Soil should be salvaged from all areas to be disturbed and should be stockpiled for use in reclamation.

(d) Site disturbances should be recontoured to a minimum of 3:1 slopes or flatter by backfilling excavated material, unless otherwise approved by the department as achieving comparable stability and utility in the postmining landscape.

(e) Soil and approved soil amendments should be redistributed over all areas disturbed by mining.

(f) The site should be seeded with perennial nonweedy species.

(g) Stream channels should be reconstructed, using coarse placer tails as necessary to dissipate energy. Riprap, temporary synthetic erosion control, or biodegradable revegetation fabrics in combination with permanent vegetation should be used to stabilize streambanks, as necessary. Streams should be reconstructed with grades, pools, and meanders comparable to premine drainage.

(h) Clays and fines available on-site should be used to create a relatively impermeable layer beneath reclaimed channels and floodplains.

(i) The floodplain should be returned to original contour with the gravel, overburden, and soils replaced to resemble their original stratigraphy. (History: This rule is advisory only, but may be a correct interpretation of the law, 82-4-321, MCA; IMP, 82-4-305(1), (3), (4), and (5), MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.183 COMPARABLE UTILITY AND STABILITY OF RECLAIMED AREAS--STANDARDS FOR BOND RELEASE FOR SMALL MINERS (1) In order for the department to release bond, the area must be reclaimed to a postmining land form and land use that are at least comparable to that of adjacent areas. Reclamation must provide for comparable stability and utility as that of adjacent areas, insure public safety, and prevent pollution of air and water and the degradation of adjacent lands.

(2) Bond may not be released unless the following reclamation standards for placer and dredging operations are achieved:

(a) Pits must be backfilled with overburden and washed gravels unless otherwise approved by the department as part of an alternate postmining land use that provides comparable stability and utility.

(b) Excess overburden must also have been appropriately placed and graded.

(c) Soils and soil substitutes must have been respread and graded on the backfilled, regraded overburden surface.

(d) Slopes must have been reduced to a grade which achieves comparable utility and stability in the postmining landscape.

(e) Disturbed areas must have been revegetated with appropriate perennial nonweedy species similar to that of adjacent areas.

(f) Roads must have been reclaimed to approximate original contour consistent with the postmining land form and land use in compliance with (1) unless otherwise approved by the department and concurred with by the landowner.

(g) Stream and floodplain disturbances must be reclaimed to their approximate premining condition so that comparable beneficial uses, such as fisheries, comparable flow capacity, and fluvial functions are restored. In most instances, this will require removal of berms.

(h) Noxious weeds must have been controlled, consistent with county weed board requirements. (History: 82-4-321, MCA; IMP, 82-4-305(3), (4), and (5), MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852.)

17.24.184 SMALL MINER BOND FORFEITURE AND SMES REVOCATION

(1) If a small miner who conducts a placer or dredge operation fails to commence reclamation within six months after cessation of mining or within an extended period allowed by the department for good cause shown pursuant to (4), or fails to diligently complete reclamation, the department shall notify the small miner by certified mail at the small miner's last reported address that bond will be forfeited and the department will reclaim the site unless the small miner commences reclamation within 30 days and diligently completes reclamation.

(2) The department shall revoke the small miner exclusion statement for any small miner whose bond is forfeited.

(3) Cessation of mining is considered to have occurred:

(a) whenever a small miner notifies the department of intent to cease operations; or

(b) whenever a site has been inactive through one operating season and the operator has failed to seek an extension for good cause shown.

(4) The department may grant an extension only when a site is temporarily stabilized in a manner which assures stability through spring runoff when impact to the environment will be minimized, and when public safety is ensured.

(5) Diligent completion of reclamation will be considered to have occurred whenever:

(a) a site has been graded and seeded in compliance with the requirements of ARM 17.24.183 during the first planting season, after cessation of activity; and

(b) reclamation standards are achieved within two years of completion of reclamation.

(6) An extension of time to reclaim must be renewed annually.

(7) A forfeited bond must be used as follows:

(a) Whenever reclamation can be achieved using the amount of the forfeited bond, excess funds must be returned to the small miner.

(b) Whenever the department documents in a written finding that reclamation cannot be achieved using the amount of the forfeited bond, funds may be deposited in the environmental rehabilitation and response account established by 82-4-311, MCA, and reclamation must be conducted as priorities and additional funding allow. Forfeited funds deposited in the account may not be used for reclamation of other sites.

(c) Whenever reclamation costs exceed the bonded amount, the department may issue a notice to the placer or dredge operator that the excess costs are due and payable within 30 days, pursuant to 82-4-305(6), MCA. The department may bill the operator only for the cost of activities that are reasonably necessary to return the site to comparable stability and utility and to prevent pollution of state waters as defined in Title 75, chapter 5, MCA. (History: 82-4-321, MCA; IMP, 82-4-305, MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2000 MAR p. 473, Eff. 2/11/00; AMD, 2002 MAR p. 3590, Eff. 12/27/02.)

17.24.185 SMALL MINER METAL LEACHING SOLVENT OR REAGENT APPLICATIONS

(1) A small miner proposing to operate cyanide or other metal leaching solvents or reagents in a processing facility and mine under a small miner exemption must continue to meet the criteria for a small miner exemption under 82-4-305, MCA, concerning the mining operation. The acreage disturbed by the cyanide or other metal leaching solvent or reagent ore processing operation and covered by the operating permit pursuant to 82-4-335(2), MCA, is excluded from the five acre limit.

(2) A small miner must obtain an operating permit for cyanide processing facilities and must meet requirements for these facilities imposed by statute and rule unless the facility is grandfathered pursuant to section 4 of Chapter 347, Laws of 1989.

(3) A small miner proposing to use metal leaching solvents or reagents other than cyanide in an ore processing facility must obtain a permit for those facilities pursuant to 82-4-335(2), MCA, for operations for which a valid small miner exclusion statement had not been obtained prior to May 1, 1999.

(4) To expedite permitting of cyanide or other metal leaching solvent or reagent facilities, the department shall make available to a small miner who has submitted or may submit an application for a permit to operate a cyanide or other metal leaching solvent or reagent ore processing facility appropriate department staff to determine how baseline, operating and reclamation plan requirements may be met in view of conditions and characteristics of the site at which the facility is proposed. The department shall process these permit applications as expeditiously as possible consistent with statutory deadlines for other permit applications and the department's obligations under the Montana Environmental Policy Act.

(5) An application for a small miner cyanide or other metal leaching solvent or reagent ore processing operating permit must contain:

(a) baseline information meeting the requirements of ARM 17.24.186;

(b) an operating plan meeting the requirements of ARM 17.24.187; and

(c) a reclamation plan meeting the requirements of ARM 17.24.188. (History: 82-4-321, MCA; IMP, 82-4-305(7), 82-4-335(2), MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852; AMD, 1999 MAR p. 640, Eff. 4/9/99; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

17.24.186 SMALL MINER METAL LEACHING SOLVENT OR REAGENT BASELINE INFORMATION

(1) An application for a small miner cyanide or other metal leaching solvent or reagent processing facility permit must include the following baseline information on the existing conditions at the site:

- (a) a map showing all wells and springs and surface water that may be impacted by the proposal within one mile of the proposed permit area;
- (b) a map showing all known significant cultural resources in the proposed permit area;
- (c) analysis of surface and ground water samples for background parameters determined by the department, from selected sites chosen in consultation with department staff;
- (d) a map delineating soil units for the proposed permit area based on available information, including that available from the soil conservation district;
- (e) a listing of species of game fish within one mile of the proposed permit area;
- (f) identification of any hatcheries in the vicinity of the proposed permit area;
- (g) baseline precipitation records;
- (h) flow data for surface and ground water identified in (a) and (c) above from available sources and water depth for identified wells; and
- (i) identification of public water supply systems that withdraw water within five miles downstream from the ore processing facility. (History: 82-4-321, MCA; IMP, 82-4-305(7), 82-4-335(2), MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

17.24.187 SMALL MINER METAL LEACHING SOLVENT OR REAGENT OPERATING PLANS (1) An application for a small miner cyanide or other metal leaching solvent or reagent processing facility permit must include the following information for construction and operation of the facility:

- (a) appropriate maps showing the location of the mine and support facilities, cyanide or other metal leaching solvent or reagent-processing facilities, permit boundaries, and perennial streams;
- (b) the average and maximum tonnage/day and per year of ore to be processed and the amount of tailings to be generated;
- (c) a narrative description of the precious metal recovery process;
- (d) number, size and location of any proposed leach pads and ponds, and ore and tailings piles associated with processing;
- (e) leach pad, pond, and waste facility designs;
- (f) a plan for a leak detection system, including a program and schedule of monitoring for possible leakage which monitors pH, electrical conductivity (EC), cyanide as weak acid dissociable (WAD), other metal leaching solvents or reagents as appropriate, and other constituent levels, for those constituents appropriate to the type of processing proposed;
- (g) a remedial action plan for controlling and mitigating discharges to surface waters;
- (h) a description of the amount of make-up water required to operate the plant for ore processing;
- (i) a plan for disposal of debris generated by clearing, grubbing and logging ensuring that the debris does not impact water quality or water flow;
- (j) sediment and erosion controls for surface disturbances related to cyanide processing facilities;
- (k) a road design and construction plan that provides controlled drainage, including location and number of culverts, waterbars, and slash filters;
- (l) design for and map of adequate berms for placement around diversion ditches and live streams to prevent water quality degeneration and erosion of disturbed areas;
- (m) a plan for stabilization of disturbed stream banks to assure that they will not be left in an erosive condition;
- (n) a plan to salvage and stockpile soil from all areas to be disturbed by cyanide processing facilities, including stockpiles and wastepiles;

(o) design and construction plans for diversions and sediment impoundments to pass the ten-year, 24-hour precipitation event. A diversion must be constructed with drop structures, or energy dissipators if necessary to prevent erosion. Diversion ditch berms must be sloped to account for site-specific conditions, including soils, climate, height of structure, and existing natural slopes and must be revegetated, riprapped, or otherwise stabilized to prevent stream sedimentation;

(p) a plan for disposal of liquid and solid wastes which includes identification and application areas and the necessary discharge permits;

(q) end-of-season procedures for shutdown of the cyanide processing facility;

(r) a plan for prevention of damage to or for documentation of any significant historic, cultural, archeological and paleontologic feature within the permit areas on state and federal lands;

(s) identification and preliminary evaluation of reasonably feasible alternative facility sites;

(t) a commitment to comply with the operational requirements of this rule;

(u) a map of monitoring site locations which also identifies well depth;

(v) well logs for those wells identified in (u) above; and

(w) a commitment to avoid perennial streams wherever possible; and

(x) for facilities that are exposed to precipitation flows and that carry cyanidated or other metal leaching solvent or reagent solution, a plan that provides for adequate passage of a 50-year 24-hour storm even flow; and

(y) a plan for preventing wildlife access to facilities with cyanidated or other metal leaching solvent or reagent solutions. (History: 82-4-321, MCA; IMP, 82-4-305(7), 82-4-335(2), MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

17.24.188 SMALL MINER METAL LEACHING SOLVENT OR REAGENT RECLAMATION PLANS (1) An application for a small miner cyanide or other metal leaching solvent or reagent ore processing permit must contain a reclamation plan that includes the following:

- (a) the postmine land use;
- (b) a reclamation timetable;
- (c) the proposed method for handling spent ore and disposal of any heavy metal sludge remaining in ponds;
- (d) a plan for monitoring water balance for the ore processing facility;
- (e) a neutralization plan for tailing and solutions;
- (f) a map showing regrading plans for all cyanide or other metal leaching solvent or reagent-processing and related facilities to a stable, minimally erosive slope configuration by backfilling excavated material, consistent with the postmining land use;
- (g) a narrative providing for reclamation of all buildings and structures;
- (h) a plan for reclaiming all associated roads, or an appropriate waiver from the surface owner;
- (i) a revegetation plan including seed mixes, method of seeding and rate of seed application (lbs/ac);
- (j) a description of any permanent diversion or stream channel reconstruction process, including use of coarse noncyanidated, nonmineralized tails or borrow material to dissipate energy or riprap streams, or use of synthetic erosion control and revegetation fabrics. Streams must be reconstructed with comparable grades, pools, and meanders to premine drainage;
- (k) a plan for stream channel reconstruction providing that the channel may not be reconstructed through reclaimed tails; and addressing control of drainage from the tails and the adjacent areas to maximize the long-term stability of the tails; and
- (l) monitoring plans for reclaimed sites.

(2) In addition, a processing facility which would constitute a "project", as that term is defined in 75-7-103, MCA, on a perennial stream, must comply with the requirements of the Natural Streambed and Land Preservation Act, as amended, by obtaining permits required by the appropriate conservation district. (History: 82-4-321, MCA; IMP, 82-4-305(7), 82-4-335, MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

17.24.189 SMALL MINER METAL LEACHING SOLVENT OR REAGENT PROCESSING FACILITIES PERFORMANCE STANDARDS AND BONDING

(1) The small miner shall notify the department of completion dates for each of the following phases of construction, and the department shall inspect and file a report on each of these phases:

- (a) foundation preparation;
- (b) compaction testing;
- (c) liner placement;
- (d) installation of leakage detection control systems; and
- (e) installation of monitoring wells.

(2) In addition to the applicable performance standards of ARM 17.24.188 and 17.24.101, and 82-4-305, MCA, the following are required prior to bond release:

(a) neutralization of cyanide or other metal leaching solvent or reagent-containing tailing and solutions to those levels considered acceptable under applicable water quality standards;

(b) submittal of construction reports for tailings, ponds, and other appropriate facilities related to cyanide or other metal leaching solvent or reagent processing, on a monthly basis;

(c) submittal of as-built designs for those facilities identified under ARM 17.24.187(1)(e), (k), (l) and (o), within one month of completion of construction activities.

(3) Bonding for cyanide or other metal leaching solvent or reagent-processing facilities must cover the actual cost of reclamation to the department and the additional estimated cost to the department which may arise from management, operation, and maintenance of the site upon temporary or permanent insolvency or abandonment, until full bond liquidation can be effected. Bonds must be reviewed and, if necessary, adjusted at least once every five years, tied to either the rate of inflation based on the consumer price index, a change in activities, or both, as appropriate.

(4) Bond must be filed in the form of a surety, payable to the state of Montana or to the state and the appropriate federal agency, a cash deposit, an assignment of certificate of deposit, letter of credit, or other surety acceptable to the department. (History: 82-4-321, MCA; IMP, 82-4-305(7), 82-4-335, MCA; NEW, 1991 MAR p. 445, Eff. 4/12/91; TRANS, from DSL, 1996 MAR p. 2852; AMD, 2000 MAR p. 473, Eff. 2/11/00.)

