

Chapter 632 Department of Geology and Mineral Industries

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DIVISION 1

PROCEDURAL RULES

632-001-0000

Notice of Rule Making

In addition to other hearing and notice of rule making requirements, the department will furnish notice of its intended agency action, depending on the sphere of interest, to interested parties named on a list maintained, with periodic revision, by the State Geologist.

Stat. Auth: ORS 183 & 520

Stats. Implemented: ORS 516.090

Hist.: GMI 9, f. & ef. 12-13-76; GMI 1-1982, f. & ef. 6-25-82; GMI 2-1995, f. & cert. ef. 3-10-95

632-001-0005

Model Rules of Procedure

(1) Pursuant to the provisions of ORS 183.341, the Board adopts the Attorney General's Model Rules of Procedure under the Administrative Procedures Act effective September 15, 1997.

(2) Persons wishing to appeal department actions are to be guided by OAR 632-010, 632-015, 632-020, 632-030, 632-033, 632-035, or 632-037, depending on the action being appealed. The public should first approach department staff, the State Geologist, and finally the Board in seeking resolution of issues which do not fall under the above-cited rules.

Stat. Auth: ORS 183.341, 197.180 & 517.740

Stats. Implemented: ORS 516.090

Hist.: GMI 6, f. 12-21-73, ef. 1-11-74; GMI 9, f. & ef. 12-13-76; GMI 2-1981, f. & ef. 12-30-81; GMI 2-1984, f. & ef. 2-22-84; GMI 3-1985, f. & ef. 11-20-85; GMI 1-1986, f. & ef. 8-25-86; GMI 1-1992, f. & cert. ef. 6-17-92; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-1999, f. & cert. ef. 8-30-99

632-001-0010

Service Fees

(1) Copying of available files, records, reports, or other departmental documents for the public will be charged for at the minimum rate of \$.15 per page with a minimum charge of \$1.

(2) Labor performed at the request of the public in copying, searching records or other service functions will be charged for at rates of at least \$20 per hour per person at the discretion of the appropriate supervisor.

(3) Copying of available data, records, or publications electronically for the public will be charged at the minimum rate of \$10 per disk copied, or as otherwise priced, based upon staff time involved.

(4) Reproduction on agency equipment by agency personnel of library Open-File Reports or maps from a disk or digital format will carry a minimum charge of \$50 to recover costs.

(5) The department may assess a charge based on the actual cost of labor and materials if the department determines that actual costs are significantly greater than the minimum charges or rates established by this rule.

(6) Fee reductions or waivers may be granted as provided in ORS 192.404(4).

Stat. Auth: ORS 517

Stats. Implemented: ORS 516.090

Hist.: GMI 3-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95

632-001-0012

Earthquake Recording Instrument Fund

(1) Building Codes Division requires recording accelerographs to the installed in certain new buildings (**Oregon Structural Special Code, Ch. 23, Div. II, Sec. 2360**) or deposit of an equivalent cost to the Earthquake Recording Instrument Fund in the Department of Geology and Mineral Industries. This fund shall be used for the purchase, strategic placement, and maintenance of accelerographs in and adjacent to buildings.

(2) The department, with the assistance of the Building Codes Division, shall oversee the design, locating and geographic distribution of accelerographs purchased and put in place using the Earthquake Recording Instrument Fund.

(3) The department shall have access to recording accelerographs installed under the **Oregon Structural Specialty Code** and shall be the repository of seismic data recorded by the accelerographs.

(4) The seismic data shall be make available to the public on request and payment of an appropriate fee as generally specified elsewhere in this Division.

[Publications: Publications referenced are available from the agency.]

Stat. Auth: ORS 516.090, 520.095, 522.019, 522.305, 522.405, 522.435 & 522.545

Stats. Implemented: ORS 516.090

Hist.: GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-1999, f. & cert. ef. 8-30-99

632-001-0014

Contracting Procedures

Agreements, contracting, and contract management will be carried out as prescribed in OAR 125.

Stat. Auth: ORS 516.090, 520.095, 522.019, 522.305, 522.405, 522.435 & 522.545

Stats. Implemented: ORS 516.090

Hist.: GMI 2-1995, f. & cert. ef. 3-10-95

632-001-0015

State Agency Coordination Program

(1) Purpose. The purpose of these rules is to establish the procedures to be used by the department in implementing the provisions of its State Agency Coordination Program, as required by ORS 197.180 and OAR 660, divisions 030 and 031. The State Agency Coordination program will assure that Department programs and actions determined to affect land use comply with the statewide planning goals and are compatible with acknowledged city and county comprehensive plans and land use regulations.

(2) Definitions: For the purpose of this rule:

(a) "Compatibility with Comprehensive Plans" means the Department has taken actions pursuant to OAR 660-030-0070 and section (5) of this rule, including following procedures in its coordination program, and there are no remaining land use conflicts between the adoption, amendment or implementation of the Department's land use program and an acknowledged comprehensive plan;

(b) "Department" means the Oregon Department of Geology and Mineral Industries;

(c) "DLCD" means the Department of Land Conservation and Development;

(d) "Intensification" means a change of a permitted mining or drilling activity over that approved by the local government that may warrant a reconsideration of the local government land use decision, such as a significant increase in volume of production inside a mine permit boundary or the act of increasing the permit boundary. Intensification would not include increase in the bonded area to be mined, within a larger area covered in the original permit;

(e) "LCDC" means the Land Conservation and Development Commission;

(f) "Substantial Modification" includes intensification, plus relocation of a proposed well site out of the originally permitted drilling unit or spacing unit or significant change or operation or reclamation, such as mining below ground water, if not previously permitted;

(g) "SAC" means State Agency Coordination;

(h) "Statewide Planning Goals" means the mandatory statewide planning standards adopted by LCDC pursuant to ORS 197.005 to 197.860.

(3) State Agency Coordination Program. The department has adopted a State Agency Coordination Program under which the permit actions listed in section (4) of this rule must comply with the statewide land use planning goals and must be compatible with acknowledged city and county comprehensive plans and land use regulations.

(4) Programs Affecting Land Use. The following activities are department programs affecting land use as defined in ORS 197.180 and OAR 660-030-0005(2):

(a) The issuance of permits for oil and gas well drilling under OAR 632, division 010;

(b) The issuance of permits for geothermal well drilling under OAR 632, division 020;

(c) The issuance of permits for mineral and aggregate mining under OAR 632, division 030;

(d) The issuance of permits for coal and metal-bearing ores under OAR 632, division 035; and

(e) The issuance of permits for chemical process mining under OAR 632, division 037.

(5) Compliance with the Statewide Planning Goals and compatibility with Acknowledged Comprehensive Plans:

(a) The department shall assure goal compliance by acting compatibly with applicable acknowledged comprehensive plans in accordance with the procedures in subsection (5)(b) of this rule. Should a situation arise which requires direct goal findings by the Department, the Department shall adhere to the following procedure:

(A) Confirm that a situation exists requiring the department to adopt findings of compliance with one or more of the statewide planning goals;

(B) Identify the specific statewide planning goal(s) or goal requirement the agency must address;

(C) Consult directly with the affected local governments;

(D) Request any necessary interpretive guidance from the DLCD and the Attorney General's office;

(E) Rely on any relevant goal interpretations for state agencies adopted by the LCDC under OAR 660; and

(F) Adopt any necessary findings to assure compliance with the statewide planning goals.

(b) To make the necessary determinations of compatibility for a department permit or an intensification or substantial modification of an existing permit, the department shall take the following action:

(A) When issuing operating permits for oil, gas and geothermal well drilling under OAR 632, divisions 010 and 020, the department shall: Inform applicants in writing that issuance of a permit by the department is not a finding of goal compliance or plan compatibility and that the applicant is responsible for obtaining local government land use approval supported by written findings as provided in OAR 632-010-0010(8)(a) and (B), 632-020-0030(5)(a) and (b), 660-031-0026(2)(b), and 660-031-0035(2) before the drilling activity can commence;

(B) When issuing Operating Permits and approving reclamation plans for mineral and aggregate mining under OAR 632, division 030, the department shall act in accordance with the applicable comprehensive plan compatibility procedures set forth in OAR 632-030-0030(1), (2) and (3), 660-031-0026(2)(b), and 660-031-0035(2);

(C) When issuing Operating Permits and approving reclamation plans for mining coal or metal-bearing ores, not involving chemical process mining, under OAR 632, division 035, the department shall inform applicants in writing that issuance of an operating permit by the department is not a finding of goal compliance or plan compatibility and that the applicant is responsible for obtaining local government land use approval supported by written findings as provided in OAR 632-035-0030(6)(a) and (b), 660-031-0026(2)(b), and 660-031-0035(2) before the mining activity can commence; and

(D) When issuing Operating Permits and approving reclamation plans for chemical process mining under OAR 632, division 037, the Department shall consider and may rely on the findings of the project coordinating committee authorized by ORS 517.965 as to whether or not the proposed permit and reclamation plan are compatible with the acknowledged comprehensive plan(s) in accordance with the applicable comprehensive plan compatibility procedures set forth in OAR 632-037-0045(7)(k), 660-030-0070(2), 660-031-0026(1), and 660-031-0035(1).

(6) Dispute Resolution. The department shall use one or more of the following steps to resolve any land use dispute which may arise before, during, or after approval of a project under the department's jurisdiction which has been determined to affect land use. These steps include:

(a) Coordinating closely with local land use planning authorities to identify and resolve any potential land use conflicts at an early stage;

(b) Holding meetings with the affected local government(s), any affected state agency, and any other interested parties involved with the dispute, especially in cases of large or controversial projects;

(c) Identifying modifications to the proposed project to avoid or resolve the dispute;

(d) Coordinating closely with local land use planning authorities in the enforcement of operating permits, reclamation plans and local land use approvals affecting a mining site;

(e) Requesting, if necessary, informal LCDC mediation or compatibility determination under OAR 660-030-0070.

(7) Compliance and compatibility of New or Amended Land Use Programs.

(a) The department's state agency coordination program may be amended, as necessary, when any of the following occurs which add to, affect or modify department rules and programs determined to affect land use:

(A) Adoption or amendment of Oregon Revised Statutes;

(B) Adoption or amendment of Oregon Administrative Rules;

(C) Decisions by the Land Use Board of appeals (LUBA) or Oregon appellate courts;

(D) Attorney General Opinions when they provide guidance with respect to paragraphs (A), (B) and (C) of this subsection; or

(E) Other unanticipated actions or decisions when they pertain to paragraphs (A), (B) or (C) of this subsection.

(b) The department shall submit notice of any amendment to any department program affecting land use or any new department rule or program to DLCD as required by OAR 660-030-0075;

(c) Any notice provided to DLCD to adopt new programs or amend existing programs shall demonstrate that the proposed adoption or amendment:

(A) Does not affect land use and therefore is not a department land use program; or

(B) Affects land use or otherwise is a department land use program and that goal compliance and comprehensive plan compatibility shall be assured through adherence to existing procedures in the department's certified SAC program; or

(C) Affects land use or otherwise is a department program affecting land use, but is not covered by regulations and procedures in the department's certified SAC program. In this case, the notice shall include an explanation of how the department shall assure goal compliance and comprehensive plan compatibility in accordance with the applicable provisions of OAR 660-030-0075.

(8) Cooperation and Technical Assistance to Local Governments Subject to statutory limitations. The department may provide technical assistance and information to local governments as availability of staff and resources permit. This assistance may include participation in pre-application or pre-permit meetings, local land use proceedings on individual permits, and may include providing technical information and assistance to permit applicants as well as to the affected local governments. Technical assistance and information provided by the department shall be for the purpose of implementing department programs and activities affecting land use during Periodic Review, comprehensive plan updates or amendments or implementation actions under acknowledged comprehensive plans and the department's State Agency Coordination Program.

Stat. Auth.: ORS 183.341, 197.180 & 517.740

Stats. Implemented: ORS 516.090

Hist.: GMI 5-1990, f. & cert. ef. 9-6-90; GMI 1-1992, f. & cert. ef. 6-17-92; GMI 2-1995, f. & cert. ef. 3-10-95

632-001-0020

Contracts for Geoscientific Surveys and Analysis

(1) Prior to entering into an agreement authorized under ORS 516.035(6), the State Geologist shall consider whether the scope of the agreement is consistent with the department's mission statement and applicable objectives of the strategic plan and the extent to which the agreement will benefit the citizens of Oregon.

(2) The State Geologist shall report annually to the Governing Board on the number and dollar value of agreements that were executed under the authority of ORS 516.035(6).

Stat. Auth: ORS 516.090

Stats. Implemented: ORS 516.035

Hist.: DGMI 1-2011, f. & cert. ef. 12-14-11

DIVISION 5

TSUNAMI INUNDATION ZONE

632-005-0000

Purpose

(1) The rules in this division implement the department's responsibilities under ORS 455.446 and 455.447 relating to the construction of specified facilities and structures within the specified tsunami inundation zones.

(2) The objective of the tsunami statutes and these implementing rules is to reduce the risk of loss of life. Risks will be reduced primarily by providing information and assistance to developers and by limiting where certain types of essential facilities or special occupancy structures may be located.

(3) ORS 455.446 and 455.447 and these rules:

(a) Establish a tsunami inundation zone;

(b) Require the developers of certain new essential facilities, hazardous facilities, major structures, and special occupancy structures which are regulated but not prohibited within the inundation zone under these rules to consult with the department before seeking land use or building permit or change in use approval;

(c) Prohibit the construction of certain new essential and special occupancy structures within the inundation zone;

(d) Provide a site-specific exception process for structures prohibited under subsection (3)(c). This process would consider relative risks, evacuation strategies, competing interests, construction strategies, terrain modifications, and other considerations; and

(e) Provide a general exemption for water-dependent and water-related structures and site-specific exemptions for certain essential facilities and special occupancy structures based upon the need for strategic location or school district boundaries.

(4) Evacuation is the preferred strategy for dealing with tsunami risk.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96; GMI 1-1997, f. & cert. ef. 4-4-97

632-005-0010

Applicability to New Facilities and Structures

The authority enforcing the Oregon Structural Specialty Code shall determine whether a developer is proposing new construction, additions, alterations, repairs, conversions, or replacements.

(1) The provisions of OAR 632-005-0000 to 632-005-0090 apply to facilities and structures for which applications for land use or building permit approval for new construction, including replacements of facilities or structures on the same site, were filed on or after the effective date of these rules.

(2) Replacement facilities and structures are also addressed in OAR 632-005-0080.

(3) Provisions do not apply to facility or structure additions, alterations, or repairs on the same site.

(4) Provisions do apply to conversions of an existing facility or structure if this places the facility or structure in a regulated category.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96

632-005-0020

Definitions

(1) In addition to the definitions in ORS 455.447, the following definitions shall apply unless another definition is clearly indicated by context:

(a) "Board" means the Governing Board of the Department of Geology and Mineral Industries.

(b) "Capacity" means the maximum allowable occupants that may be served in the facility or structure in accordance with applicable laws or other authority.

(c) "Competing interests and other considerations" means any well-founded consideration that is reasonably related to balancing or management of tsunami risks. It includes, but is not limited to, scientific data regarding tsunami risks and mitigation measures such as evacuation strategies.

(d) "Consultation" means information provided by the department to a prospective developer during information transfer under ORS 455.447 and OAR 632-005-0060. It includes, but is not limited to, printed material; references to scientists, engineers, or others with expertise in matters relating to tsunami hazards; reports summarizing information known about the site or surrounding area; information derived from field visits; and recommendations regarding potential mitigation measures. Consultation is not binding.

(e) "Department" means the Oregon Department of Geology and Mineral Industries.

(f) "Developer" means local governments, districts, or other persons proposing to develop new essential facilities, hazardous facilities, major structures, or special occupancy structures that are addressed by ORS 455.446 to 455.447 and these rules.

(g) "Exception" means a board order under ORS 455.446(1)(d) and OAR 632-005-0080 allowing the siting of a facility or structure that would otherwise be prohibited by ORS 455.446(1)(a). An exception is not a land use or building codes approval.

(h) "Mitigative construction strategy" means a design plan that reasonably provides for evacuation to higher floors or unhindered site evacuation with a reasonable expectation of safety in the event of a tsunami.

(i) "Mitigative terrain modification" means landscaping that can reasonably be expected to mitigate tsunami risk for the site in question. It may include, but is not limited to, placement of fill on the site, berms or other protective features around the site, or ground armoring to limit tsunami erosion beneath or around facilities or structures. In this context, ground armoring does not necessarily include sea wall construction.

(j) "New," when referring to a facility or structure, means that application for land use or building permit or change in use approval was made on or after the effective date of these rules.

(k) "Risk" means the threat to people posed by a tsunami hazard for the proposed use of a site.

(l) "Tsunami hazard" means, as determined by scientific expectation, the size of the tsunami, the kind of tsunami action, including velocity, and the estimated recurrence frequency of the tsunami event for a given site.

(m) "Tsunami inundation zone" for the purpose of these rules means the area subject to tsunami inundation as depicted on maps adopted under OAR 632-005-0030 of these rules and intended for the implementation of ORS 455.446 and 455.447.

(n) "Water-dependent" means a use or activity which can be carried out only on, in, or adjacent to water areas because the use requires access to the water body for water-borne transportation, recreation, energy production, or source of water.

(o) "Water-related" means uses which are not directly dependent upon access to a water body but which provide goods or services that are directly associated with water-dependent land or waterway use, and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered. Except as necessary for water-dependent or water-related uses or facilities, residences, parking lots, spoil and dump sites, roads and highways, restaurants, businesses, factories, and trailer parks are not generally considered dependent on or related to water location needs.

(2) In addition, the definitions in the Oregon Structural Specialty Code of the Department of Consumer and Business Services shall apply unless a different meaning is clearly indicated by context.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96; GMI 1-1997, f. & cert. ef. 4-4-97

632-005-0030

Adoption of Maps for the Purposes of Screening New Essential Facilities, Hazardous Facilities, Major Structures, and Special Occupancy Structures

(1) In implementing the provisions of ORS 455.446 and 455.447, decisions of the board may be based upon a tsunami produced by a Cascadia subduction zone earthquake event of reasonable size, using current earthquake science, geologic science and modeling techniques.

(2) In adopting maps of the tsunami inundation zone for the purposes of implementing ORS 455.446 and 455.447, making exceptions, and providing consultation, the board and department shall be guided by the principle of best available science.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96; GMI 1-1997, f. & cert. ef. 4-4-97

632-005-0040

Tsunami Inundation Zone

(1) For the purposes of implementing these rules, the tsunami inundation zone is the area depicted as the tsunami inundation zone in Oregon Department of Geology and Mineral Industries Open-File Reports O-95-09 through O-95-38, O-95-43 through O-95-66, and O-97-31 through O-97-32.

(2) The board will consider revisions to the zone based upon scientific and engineering information supplied by the public and interested governmental entities. Modifications to the zone must be made by rule. Petitions for modifications should be filed under ORS 183.390 and OAR 137-001-0070.

(3) The tsunami inundation zone is designed specifically to assist the board in considering decisions of risk related to the construction of new essential facilities, hazardous facilities, major structures, and spe-

cial occupancy structures. The tsunami inundation zone is not designed or intended to specifically support building permit or land use planning decisions.

(4) Developers of new essential facilities, hazardous facilities, major structures, and special occupancy structures are advised to develop evacuation procedures and routes to elevations higher than tsunami runup lines on the current tsunami inundation zone maps.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96; GMI 1-1997, f. & cert. ef. 4-4-97

632-005-0050**Referrals**

(1) Local government planning offices, local emergency management offices, and local building department offices or alternative authorities are encouraged to direct prospective developers of facilities and structures regulated by these rules to approach the department at the earliest reasonable date for exceptions or consultation in advance of proceeding with permitting.

(2) Local governments and alternative authorities enforcing the Oregon Structural Specialty Code needing verification of an exception by the board or a consultation with the department may require such verification.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96

632-005-0060**Consultations; Requirements; Timing**

(1) For all new construction or conversion to essential facilities, hazardous facilities, major structures, or special occupancy structures described in ORS 455.447(4), the developer must seek consultation from the department. However, no consultation is required to be obtained for exempted facilities or structures.

(2) Requests for consultation on methods to mitigate tsunami risk for the site in question shall be submitted in writing to the department with a clear statement of the type of facility or structure under consideration, the facility's or structure's expected capacity, size, elevation above mean sea level, and specific location. The request shall take place prior to submittal of design plans to the building official for final approval.

(3) The department will provide readily available consultation to the applicant. The form and extent of the consultation will be at the discretion of the department. The consultation will be nonbinding and will be considered public information. The developer may proceed with activities uninterrupted as soon as the request for consultation is made to the department.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96

632-005-0070**Exemption Responsibility**

(1) Local governments with authority to enforce the Oregon Structural Specialty Code (OAR 918-460-0010) in the tsunami inundation zone shall be responsible for determining whether a facility or structure is:

(a) Inside the inundation zone;

(b) Subject to these rules;

(c) Exempt due to the need based on strategic location or school district boundaries as described in ORS 455.446(1)(e); or

(d) Exempt due to water-dependent or water-related status as described in ORS 455.446(3) and as defined in OAR 632-005-0020(1)(m) and (n).

(2) Local governments with authority for enforcing the Oregon Structural Specialty Code determine the timing of this decision and what constitutes a need for strategic location. This determination is separate from any board exceptions decisions.

(3) If the local government does not have authority to enforce the Oregon Structural Specialty Code, the local government shall determine whether it makes the determinations referenced in sections (1) and (2) of this rule or whether the determinations are made by the alternative authority enforcing the Oregon Structural Specialty Code.

(4) Water-dependent and water-related facilities and structures in the tsunami inundation zone are exempt from restrictions under ORS 455.446.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96

632-005-0080**Exceptions; Procedures; Timing; Appeals**

(1) The board may grant exceptions to the restrictions in ORS 455.446(1)(a) on constructing certain facilities or structures, including replacement facilities and structures, in the tsunami inundation zone as provided in this Rule and ORS 455.446(1)(d).

(2)(a) An application for an exception must be made in writing and submitted to the department. The application must include a site map that shows elevations and the location and use of all proposed structures and facilities. The application also must demonstrate how the safety of building occupants will be assured as required by ORS 455.446(1)(d).

(b) To the extent the information is applicable and reasonably available, the application also must include the following information:

(A) Proposed mitigation that is the basis for the exception, such as evacuation or construction methods and the nearness and accessibility of evacuation sites that are clearly safe from tsunami inundation;

(B) Estimates of the anticipated amount of time between the earthquake event and the time the first tsunami strikes, and the ease with which the facility or structure can be evacuated;

(C) The name and source of any alternative tsunami model used, and a showing of whether the proposed facility or structure would be located outside the inundation zone and, if so, how far outside the zone;

(D) Citations to the sources of any geologic field data that were not used to establish the adopted inundation zone and a showing of whether the proposed facility or structure would be located outside the inundation zone identified by the new data and, if so, how far outside the zone;

(E) The structural ability of the proposed facility or structure to withstand the earthquake that precedes the tsunami;

(F) The structural ability of the proposed facility to withstand a tsunami;

(G) The needs being met by locating the facility or structure at a particular site;

(H) The lack of suitable alternatives for a facility or structure;

(I) Whether the proposed facility or structure is a replacement of a facility or structure that was used for the same use; and

(J) Other relevant information supporting the request for exception.

(c) The board or its delegate shall determine whether the application is complete and may require any additional information that is reasonably necessary for the evaluation of the request for an exception.

(d) The board or its delegate shall hold a public hearing for the purpose of informing the public about, and considering public comment on, the request for an exception.

(e) The board shall grant or deny the request for an exception within 60 days after the receipt of a complete application unless the developer agrees to an extension.

(f) The board may grant a request for an exception subject to conditions determined by the board to be appropriate under ORS 455.446(1)(d).

(3) A hearing on an application for an exception is not a contested case hearing, and the board's order on an application for an exception is not a contested case order. An order may be appealed to the circuit court under ORS 183.484.

(4) Developers are encouraged to request an exception prior to seeking land use or building permit approvals. However, a decision to grant or deny an exception does not supersede any required land use, building permit, or change in use approvals nor is it intended to influence such approvals.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96

632-005-0090**Exceptions; Fees**

Developers seeking an exception may be billed for reasonable incurred costs up to a maximum of \$900 for department review and board consideration including, but not limited to, personnel expenses and indirect costs. An applicant for an exception may request additional services and waive the \$900 fee ceiling. An applicant may request an explanation of accounting practices used to determine costs, and the billing will be accompanied by a documentation of the expenses incurred by the department and board.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 455.446 & 455.447

Hist.: GMI 1-1996, f. & cert. ef. 1-31-96

DIVISION 7

FURTHER REVIEW AREA MAPS

632-007-0000

Purpose

The rules in this division implement the responsibilities of the Oregon Department of Geology and Mineral Industries under ORS 195.260(4)(a) relating to the mapping of further review areas for rapidly moving landslides.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 195.260 & 516.090

Hist.: DGMI 1-2002, f. 12-20-02, cert. ef. 1-1-03; Suspended by DGMI 2-2002(Temp), f. 12-20-02, cert. ef. 1-1-03 thru 6-28-03; DGMI 1-2003, f. 6-27-03, cert. ef. 6-29-03; DGMI 1-2004, f. & cert. ef. 12-10-04

632-007-0010

Definitions

(1) "Further review area" for the purpose of this division, means an area of land that may be subject to rapidly moving landslides as specifically mapped by the Oregon Department of Geology and Mineral Industries for the purpose of implementing ORS 195.260(4)(a).

(2) "Rapidly moving landslide" for the purpose of this division, means any detached mass of soil, rock, or debris that begins as a relatively small landslide on steep slopes and grows to a sufficient size to cause damage as it moves down a slope or a stream channel, and is moving at a velocity that is difficult for people to outrun or escape.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 195.260 & 516.090

Hist.: DGMI 1-2002, f. 12-20-02, cert. ef. 1-1-03; Suspended by DGMI 2-2002(Temp), f. 12-20-02, cert. ef. 1-1-03 thru 6-28-03; DGMI 1-2003, f. 6-27-03, cert. ef. 6-29-03; DGMI 1-2004, f. & cert. ef. 12-10-04

632-007-0020

Further Review Area Maps

(1) The Oregon Department of Geology and Mineral Industries will prepare further review area maps in cooperation with local governments and in coordination with the Oregon Department of Forestry. The department will prepare further review area maps only for counties in western Oregon and Hood River County, where appropriate.

(2) The Oregon Department of Geology and Mineral Industries will identify further review areas in maps prepared for that purpose. The Governing Board will adopt the further review area maps by rule. No other maps or parts of maps prepared by the department are further review area maps.

(3) As provided in ORS 195.260, further review area maps are designed to assist local government in determining the need for site-specific reports prior to construction of structures in areas with possible hazard from rapidly moving landslides.

(4) Further review area maps are not designed or intended to indicate levels of site-specific hazard.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 195.260 & 516.090

Hist.: DGMI 1-2002, f. 12-20-02, cert. ef. 1-1-03; Suspended by DGMI 2-2002(Temp), f. 12-20-02, cert. ef. 1-1-03 thru 6-28-03; DGMI 1-2003, f. 6-27-03, cert. ef. 6-29-03; DGMI 1-2004, f. & cert. ef. 12-10-04

632-007-0030

Effective Date

The rules in this division are effective June 29, 2003.

Stat. Auth.: ORS 516.090

Stats. Implemented: ORS 195.260 & 516.090

Hist.: DGMI 1-2002, f. 12-20-02, cert. ef. 1-1-03; Suspended by DGMI 2-2002(Temp), f. 12-20-02, cert. ef. 1-1-03 thru 6-28-03; DGMI 1-2003, f. 6-27-03, cert. ef. 6-29-03; DGMI 1-2004, f. & cert. ef. 12-10-04

DIVISION 10

OIL AND GAS RULES

632-010-0002

General Rules

These general rules apply to all lands within the jurisdiction of the State of Oregon unless otherwise specifically stated.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95

632-010-0004

Supremacy of Special Rules

The board may issue special rules, including field rules. A special rule supersedes a general rule on the same subject to the extent that the general rule is in conflict with the special rule.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0008

Definitions

The definitions in ORS 520.005 apply to this rule division. In addition, the following definitions apply:

(1) "Allowable Quantity" means the amount of natural gas or oil allowed by order of the board to be produced within a stated period.

(2) "Atmospheric Pressure" means the pressure of air at sea level, equivalent to about 14.73 pounds per square inch absolute.

(3) "Barrel" means 42 U.S. gallons of oil at a temperature of 15.55 degrees Centigrade (60 degrees Fahrenheit), with deductions for the full percent of basic sediment, water, and other impurities present, ascertained by centrifugal or other recognized and customary tests.

(4) "Blowout" means an uncontrolled escape of oil, natural gas, or water as a flow from a well.

(5) "Blowout Preventer" means a heavy casing-head control of special gates or rams that will seal the annular space between drill pipe or tubing and casing or completely close off the top of the inner casing string.

(6) "Board" means the Governing Board of the State Department of Geology and Mineral Industries.

(7) "Bottom Hole Pressure" means the pressure in pounds per square inch at or near the bottom of an oil or gas well determined at the face of the producing horizon by means of a pressure recording instrument, adopted and recognized by the oil and gas industry, and corrected to the sea level elevation.

(8) "Casing Pressure" means the pressure in the annular space between the tubing and casing measured at the wellhead.

(9) "Completion" means a well is in such condition that it is capable of producing oil or gas, or both.

(10) "Contaminate" means any chemical, ion radionuclide, synthetic organic compound, microorganism, waste or other substance that does not occur naturally in groundwater or that occurs naturally but at a lower concentration.

(11) "Contamination" means introduction of contaminate.

(12) "Decommission" means the condition of a well when it has been lawfully and permanently plugged and the well pad, access road and other related disturbance reclaimed to a secondary beneficial use that is compatible with the land use designation according to these rules with the approval of the department.

(13) "Department" means the State Department of Geology and Mineral Industries.

(14) "Development" means any work performed to bring about production of oil or gas, or both.

(15) "Developed Area or Developed Unit" means a unit as defined in ORS 520.005(12) having a well completed thereon capable of producing oil or gas in paying quantities. However, in the event the board finds that a part of any unit is nonproductive, then the developed area of the unit includes only the productive part.

(16) "Differential Pressure" means:

(a) In the case of wellhead measurement, the difference between the tubing pressure and the casing pressure; or

(b) In the case of an orifice meter, the pressure difference between the upstream and the downstream sides of the orifice, a pressure difference measured with a differential gauge or with a manometer (U tube).

(17) "Disposal Well" means any well used for the purpose of disposal of produced saltwater and produced oil field waste.

(18) "Drilling Unit" means the acreage dedicated to a well before field limits and spacing rules are established by the board.

(19) "Edge Water" means water that holds the oil or gas, or both, in a higher structural position usually encroaching on a pool as the oil or gas is recovered.

(20) "Fair Share" means that part of recoverable oil or gas, or both, in a developed area of a pool proportional by area to the recoverable oil or gas, or both, in the entire developed area of the pool, insofar as these amounts can be practically ascertained.

(21) "Gas Allowable" means the amount of natural gas authorized to be produced by order of the board.

(22) "Gas-Oil Ratio" means the relation of the gas in cubic feet to the production of oil in barrels as accepted by pipelines.

(23) "Gas Repressuring" means the introduction of gaseous substances into a pool by artificial means in order to replenish, replace, or increase the reservoir energy.

(24) "Gas Well" means:

- (a) A well that produces natural gas only;
- (b) That part of a well where the gas producing stratum has been successfully cased off from the oil so that the gas and oil are produced through separate casing or tubing;
- (c) Any well capable of producing gas in commercial quantities; or
- (d) A well producing from a reservoir containing no commercially significant liquid hydrocarbons.

(25) "Idle Well" means an inactive well that has not been completed, suspended, or decommissioned with approval of the department.

(26) "Illegal Gas" means gas that has been produced within the state from any well or wells in excess of the amount allowed by any rule, regulation, or order of the board.

(27) "Illegal Oil" means oil that has been produced within the state from any well in excess of the amount allowed by any rule, or order of the board.

(28) "Illegal Product" means any product of oil or gas, any part of which was processed or derived, in whole or in part from illegal oil or illegal gas, or from any product thereof.

(29) "Indices of Productive Value" means the factors to be considered in ascertaining the productivity of all property in a pool for the purpose of fixing the allowable production. These indices may include, at the discretion of the board, potential acreage, gas-oil ratios, static reservoir pressures, flowing pressures, fluid level drawdowns, the well or wells, or any other pertinent factors.

(30) "Lease" means the exclusive right to explore for, drill for, and produce petroleum, natural gas, and associated hydrocarbons.

(31) "Lessee" means a person who becomes a mineral rights owner by leasing mineral rights from a mineral rights owner.

(32) "Mineral Rights Owner" means the person who has the exclusive right to lease or grant rights for mineral exploration and includes owners of unleased mineral rights and lessees of mineral rights.

(33) "Mud-Laden Fluid" means any approved mixture of fluid and clay or other material that will effectively seal the formation to which it is applied.

(34) "Net Drainage" means the drainage or migration of oil or gas within the reservoir not equalized by counter-drainage.

(35) "Oil Allowable" means the amount of oil authorized to be produced by order of the board.

(36) "Oil Well" means any well that is not a gas well and is capable of producing oil or condensate in paying quantities.

(37) "Operator" means any person who is in charge of the development of a lease or the construction, development or operation of a well subject to the division.

(38) "Overage, Overproduction" means the oil or gas produced in excess of the allowable quantity fixed by the board.

(39) "Period Allowable" means the period as designated by the department, in which an allowable quantity may be produced.

(40) "Pool" means an underground reservoir containing a common accumulation of oil and natural gas. A zone of a structure that is completely separated from any other zone in the same structure is a pool.

(41) "Potential" means the computed daily ability of a well to produce oil and/or natural gas as determined by a test made in conformity with rules prescribed by the board.

(42) "Permittee" means any person who has the right to drill a well and has received a permit or is an operator.

(43) "Pressure Maintenance" means:

- (a) The re-introduction, in the early stages of field development, of gas or fluid produced from an oil or gas well to maintain the pressure of the reservoir; or
- (b) The introduction of gas or fluid for the same purpose, but obtained from an outside source.

(44) "Producer" means the owner of one or more wells capable of producing oil or gas or both.

(45) "Proved Oil or Gas Area" means the area that has been shown by development or geological information to be such that additional wells drilled thereon are reasonably certain to be commercially productive of oil or gas, or both.

(46) "Purchaser" means any person who directly or indirectly purchases, transports, takes, or otherwise removes production from a well, wells, or pool.

(47) "Run" means oil or gas piped from one place to another.

(48) "Separator" means an apparatus for separating fluid, as it is produced.

(49) "Service Well" means any well drilled to be used for the purpose of underground natural gas storage or to monitor such underground storage.

(50) "Shortage or Underage" means the amount of production less than the allowable.

(51) "Spacing Unit" means the acreage dedicated by the board to a well after field limits and rules are established.

(52) "Storage" means produced oil, gas, or both confined in tanks, reservoirs, or containers.

(53) "Suspension" means the status of a well that is not in a plugged or completed condition when it has been safely left unattended, with the written approval of the department, for a period of 30 days or more.

(54) "Unlawful Abandonment" means the condition of:

- (a) An idle well from which drilling equipment has been removed;
- (b) An idle well with drilling equipment present but no activity for 30 consecutive days; or
- (c) Any suspended well whose period of approved suspension has expired and an additional 30 days has elapsed.

(55) "Wellhead" means equipment consisting of valves installed at the surface of the well.

(56) "Well Log" means the written record progressively describing the strata, water, and oil or gas encountered in drilling a well with such additional information as to give volumes, pressure, rate of fill-up, water depths, casing strata, casing record, etc., as is recorded in the normal procedure of drilling. It also includes all electrical and mechanical surveys performed in the well bore.

(57) "Wildcat Well" means a drilling or producing well located in an area that is not a "Proved Oil or Gas Area".

NOTE: Additional definitions may be found in ORS 520.005 and 520.015.

Stat.Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 2, f. 6-20-55; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 1-1985(Temp) f. & ef. 6-7-85; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; GMI 3-1997, f. & cert. ef. 12-3-97; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0010

Application and Permit to Drill, Redrill, Deepen, Alter Casing, or Rework

(1) No person may construct, drill, operate, or decommission a well until the person has received a permit, paid to the department a nonrefundable fee for each such well pursuant to ORS 520.017, and posted a bond or other financial security pursuant to OAR 632-010-0205. Construction includes construction of access roads, well pads and other site disturbances relating to the development of the site. Drilling includes redrilling, deepening, and drilling to set conductor pipe. Operation includes maintaining the well while in use or while production is suspended. Decommissioning includes plugging and restoration of the well site.

(2) The application for a permit must include:

- (a) The location of the well;
- (b) The name and address of the surface owner, operator, permittee and any other person responsible for the conduct of the drilling operations;
- (c) The elevation of the well above sea level;
- (d) Casing and cementing programs giving details of casing sizes, casing grade, hole diameters, and volume of cement to be used;
- (e) Geologic objectives for wells proposed for known producing areas and proposed depth in all cases; and
- (f) Documentation of the ownership of mineral rights or a mineral rights lease on the property to be drilled, or the right or obligation, under the terms of an existing contract, to drill a well.

(3) The permit will be suspended if the applicable rights in subsection (2)(f) of this rule cease to exist prior to the decommissioning of the well, access roads and any related disturbance.

(4) If a completed application has not been received by one year from the date of the receipt of the initial application, the application will be automatically returned to the applicant and will be deemed withdrawn.

(5) The applicant must be registered with the Secretary of State if registration is required by the laws of the State of Oregon.

(6) Upon receipt of an application the department will determine within 21 days if the application is complete. The department will notify the applicant of the determination in writing.

(7)(a) The department will circulate each application for a permit to drill for technical review to appropriate state agencies and the governing body of the county or city in which the well will be located. The agencies and governing body have 45 days from the date the department circulates the application in which to comment. The department can extend this period upon request by the reviewing agency for good cause. Within 60 days after receipt of a complete application for a permit, the department shall issue or deny the permit unless the department determines that a longer period is necessary to respond to comments or new information, or for any other good cause.

(b) The department may approve immediately without circulating for technical review an application for a permit to redrill, deepen, or rework if the drilling operations are an uninterrupted continuance of previous drilling operations, provided conditions of OAR 632-010-0142(3) are met.

(8)(a) The application for permit must be denied if the applicant is currently in violation of ORS 520 or with the rules in this division with respect to another well. A permit may also be denied if:

(A) The permittee has unlawfully abandoned a well or failed to submit records or samples in a timely manner; or

(B) If the applicant controls or is controlled by a person that has been determined by the department to be in violation of ORS Chapter 520 or the rules in this division or has unlawfully abandoned a well or failed to submit records or samples in a timely manner.

(b) If the department refuses to issue a permit, it will notify the applicant and concurrently provide the reason for denying the permit. A person adversely affected by refusal to issue a permit may seek review of the decision by filing an appeal with the board within 30 days of the date the notice of the refusal to issue the permit is received by the applicant.

(9) When issuing the permit, the department shall inform the applicant that:

(a) Issuance of the permit is not a finding of compliance with the Statewide Planning Goals (ORS 197.225) or compatibility with the acknowledged comprehensive plan and land use regulations; and

(b) The applicant must receive land use approval from the affected local government supported by written findings as provided in OAR 632-001-0015 before the use can commence.

(10) The department may temporarily suspend operations if they are not in compliance with applicable laws or rules of this chapter, or departmental orders.

(11) The department may revoke a permit for noncompliance with applicable statutes, rules, orders, and permit conditions.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2, f. 6-20-55; GMI 1-1978(Temp), f. 5-26-78, ef. 7-1-78; GMI 1-1979, f. & ef. 1-25-79; GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 1-1981, f. & ef. 2-26-81; GMI 1-1982, f. & ef. 6-25-82; GMI 1-1985(Temp), f. & ef. 6-7-85; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; GMI 2-1995, f. & cert. ef. 3-10-95; GMI 3-1997, f. & cert. ef. 12-3-97; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0011

Active Permits

On or before the anniversary of the issuance date of each active permit issued by the department, the permittee must pay to the department an annual nonrefundable fee in the amount specified in ORS 520.017.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0012

Modifications to Drilling Permits

Proposed modifications to a drilling permit must be approved by the department prior to taking effect.

(1) Modification to a permit involving depth, casing, or location within the same drilling or spacing unit must be submitted on an application form provided by the department, along with the applicable fee.

(2) A modification of location to a different drilling or spacing unit requires a new application and fee, and may constitute a significant modification for land use purposes.

(3) The Permittee may not transfer the permit without written approval from the department. The department may transfer a permit to

a new owner or operator if the following items are provided to the department:

(a) A completed application signed by the original permittee and the new permittee;

(b) A bond or alternative form of security acceptable to the department in the name of the new permittee; and

(c) -A new organization report.

(4) Deepening: A permittee must obtain written approval from the department before a well may be drilled to a depth below the maximum depth specified in the permit. To obtain approval, the permittee must file a written application that describes the present condition of the well, including the complete casing record, and the proposed work, including the plan for sealing off any oil, gas, brine, or fresh-water strata to be found or expected to be found in the deepening, and the new proposed total depth. If the method set forth is satisfactory and the permittee is not in violation of ORS Chapter 520, the board's rules implementing that chapter or the orders of the board, the department, the department may approve a permit modification. The permittee may not begin the actual deepening of the well until the modified permit has been posted at the well location.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2, f. 6-20-55; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0014

Drilling Practices

(1) Pits for drill cuttings: At every well site, the permittee must provide and use one or more pits, sumps, or above-ground containers of approved design and size for holding the drill cuttings and fluid removed from the well. All pits, sumps, or above-ground containers must be constructed in a way that allows for egress.

(2) Casing and sealing off formations general requirements:

(a) Surface casing:

(A) Surface casing used in all wells must be of suitable size, grade, condition, and wall thickness;

(B) In areas where pressure and formation are unknown, sufficient surface casing must be run to reach a depth below all known potable fresh water levels;

(C) In areas where subsurface conditions have been established by drilling experience, sufficient surface casing must reach a depth 100 feet below all fresh-water levels;

(D) The depths referred to in paragraphs (B) and (C) of this subsection must be at least 25 percent of the proposed next casing point or total depth, unless otherwise approved by the department;

(E) Surface casing and conductor pipe must be cemented. Surface casing must be cemented by the pump and plug or displacement method with sufficient cement to circulate to the surface. The conductor pipe must be cemented to the surface to prevent the migration of fluids to other zones or to the surface; and

(F) Cement must be allowed to set a minimum of 12 hours before drilling the plug.

(b) Other casing requirements: Each fluid-bearing zone above the production horizon must be cased and sealed off to prevent the migration of formation fluids to other zones. Such casing and sealing off must be completed and tested in a manner and method approved by the department.

(c) A formation leakoff test or a casing shoe integrity test may be required by the department. If required, the results must be provided to the department for review and approval prior to the continuation of drilling operations.

(3) When drilling, a suitably weighted mud-laden fluid must be continuously maintained in the hole, from top to bottom, in accordance with recognized safe practices. The permittee may request permission from the department to use other fluids. The request must be approved in writing by the department prior to use.

(4) Wellhead equipment:

(a) When drilling in areas where high pressures are likely to exist, as determined by the department, all proper and necessary precautions must be taken for keeping the well under control, including, but not limited to, the use of blowout preventers and high-pressure fittings attached to casing strings properly anchored and cemented:

(A) The Blowout Prevention Equipment schematic diagram must indicate the minimum size and pressure rating of all components of the wellhead and blowout preventer assembly;

(B) The department, on a site-specific basis, may require the use of blowout preventers or other methods of controlling shallow coal bed methane wells;

(C) All blowout preventers, choke lines, and choke manifolds must be installed above ground level. Casing heads and optional spools may be installed below ground level provided they are visible and accessible;

(D) Blowout preventer equipment and related casing heads and spools must have a vertical bore no smaller than the inside diameter of the casing to which they are attached;

(E) All ram blowout preventers must be equipped with hydraulic locking devices and manual locking devices with hand wheels extending outside of the rig's substructure;

(F) Blowout prevention equipment installed on the well must have a rated expected formation pressure higher than the working pressure;

(G) In addition to the minimum blowout preventer requirements outlined in this section, wells drilled while using tapered drill strings must use either a variable bore pipe ram preventer or additional ram type blowout preventers to provide a minimum of one set of pipe rams for each size of drill pipe in use, and one set of blind rams.

(b) Unless otherwise approved by the department, the blowout prevention equipment must include a minimum of at least one annular blowout preventer and one double-gate preventer with pipe and blind rams or two single-ram type preventers; one equipped with pipe rams and the other with blind rams. Ram preventers or a drilling spool must have side outlets with a minimum inside diameter of 2 inches on the kill side, and 3 inches on the choke side to accommodate choke and kill lines. Outlets on the casing head may not be used to attach choke or kill lines;

(A) Additional blowout preventer equipment includes, but is not limited to, one upper kelly cock, and one drill pipe safety valve with subs to fit all drill string connections in use;

(B) Choke manifold and related equipment consists of one kill line valve, one check valve, two choke line valves, choke line, two manual adjustable chokes (each with one valve located upstream of the choke), one bleed line valve, and one mud service pressure gauge with a valve upstream of the gauge;

(C) All choke manifold valves, choke and kill line valves, and the choke line must be full bore. Choke line valves, choke line, and bleed line valves must have an inside diameter equal to or greater than the minimum requirement for the blowout preventer or drilling spool outlet;

(D) The choke line must be as straight as possible, and any required turns must be made with flow targets at all bends and on block tees. All connections exposed to well bore pressure must be welded, flanged, or clamped. Choke hoses with flanged connections designed for that purpose will be accepted in lieu of a steel choke line. The choke line must be securely anchored;

(E) The accumulator must have sufficient capacity to operate the blowout preventer equipment as outlined in this section, and have two independently powered pump systems connected to start automatically after a 200 psi drop in accumulator pressure, or one independently powered pump system connected to start automatically after a 200 psi drop in accumulator pressure and an emergency nitrogen back-up system connected to the accumulator manifold. Blowout preventer controls may be located at the accumulator or on the rig floor;

(F) A hydraulically operated accumulator; and

(G) A pit horn.

(c) Minimum requirements for blowout preventer equipment testing:

(A) All blowout preventers and related equipment that may be exposed to well pressure must be tested first to a low pressure and then to a high pressure;

(i) A stable low of 200–300 psi must be maintained for at least 30 minutes prior to initiating the high-pressure test;

(ii) The high-pressure test must be to the rated working pressure of the ram type blowout preventer equipment and related equipment, or to the rated working pressure of the wellhead on which the stack is installed, whichever is lower. A stable high-pressure test must be maintained for 30 minutes;

(iii) Annular blowout preventer must be high-pressure tested to 50 percent of the rated working pressure and maintain a stable pressure for 30 minutes; and

(iv) Manual adjustable chokes not designed for complete shutoff must be pressure tested only to the extent of determining the integrity of the internal seating components to maintain back pressure. Hydraulic chokes designed for complete shutoff must be pressure tested to 50 percent of the rated working pressure.

(B) All casing below the conductor pipe must be pressure tested to 0.22 psi per foot or 1,500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield strength of the casing. A stable pressure must be maintained for 30 minutes. Higher pressures, using a test plug in the casing head, may be required by the department on a case-by-case basis;

(C) During blowout preventer pressure testing the casing must be isolated with a test plug set in the wellhead, and the appropriate valve must be opened below the test plug to detect any leakage that may occur due to failure of the test plug;

(D) The choke and kill line valves, choke manifold valves, upper and lower kelly cocks, drill pipe safety valves, and inside blowout preventer must be tested with pressure applied from the wellbore side. All valves, including check valves, located downstream of the valve being pressure tested, will be in the open position;

(E) Manually operated valves and chokes on the blowout preventer stack, choke and kill lines, or choke manifold must be equipped with a handle provided by the manufacturer, or a functionally equivalent fabricated handle, and be lubricated and maintained to permit operation of the valves without the use of additional wrenches or levers;

(F) All operational components of the blowout preventer equipment must be function tested at least once a week to verify the components' intended operations;

(G) The blowout prevention equipment must be pressure tested when installed, prior to drilling out casing shoes, and following repairs or reassembly of the preventers that require disconnecting a pressure seal in the assembly;

(H) During drilling operations, blowout prevention equipment must be actuated to test proper functioning once each trip, or once each week, whichever is more frequent;

(I) All flange bolts must be inspected at least weekly and retightened as necessary during drilling operations;

(J) The auxiliary control systems must be maintained in working order and be inspected daily to check the mechanical condition and effectiveness and to ensure personnel at the site are familiar with their operation;

(K) A blowout prevention practice drill must be conducted weekly for each drilling crew, and be recorded on the driller's log;

(L) The results of all blowout preventer equipment pressure tests and function tests must be recorded on the tour sheet and include the type of test, testing sequence, low and high pressures, duration of each test, and results of each test;

(M) All blowout preventer equipment test results submitted to the department must have a signed certification stating that the testing procedures of the blowout preventer equipment and the passing results are accurate and comply with OAR 632-010-0014;

(N) The department may require any blowout preventer equipment test to be conducted or witnessed by an independent third party that will report all test results to the department for review and approval prior to commencement of drilling operations;

(O) All tool pushers, drilling superintendents, and permittees' representatives (when the permittee is in control of the drilling) are required to have completed an API, IADC, or similar governing body sanction well control certification program and furnish the certification of satisfactory of completion to the department prior to the start of any drilling operations. The certification must be renewed every two years.

(5) Inclination Surveys:

(a) Unless exempted by the department, for all wells where production will be from a depth greater than 1500 feet, inclination surveys to determine the angle of the hole from the vertical must be performed before completion.

(b) The department may, for good cause, require a permittee to perform a directional survey to determine the location of the borehole at various intervals.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0015

Down Hole Loss and Decommissioning of a Radioactive Source

(1) A permittee must notify the department within 2 hours of the down hole loss of a radioactive source (source or radioactive source). The notice must include the date of loss and location (county, survey name, abstract number, lease name, well API number, distances from survey boundaries, and Lambert Coordinates).

(2) Procedures for recovery of the lost radioactive source must be furnished to the department, and the radioactive source may not be declared decommissioned until all reasonable effort has been expended to retrieve the radioactive source, as determined by the department.

(3) Decommission procedures.

(a) Wells with decommissioned radioactive sources must be mechanically equipped to prevent either accidental or intentional mechanical disintegration of the radioactive source.

(A) Radioactive sources decommissioned in the bottom of a well must be covered with a cement plug, dyed a standard color red iron oxide at least 100 feet thick, on top of which a whipstock or other approved deflection device is set. The dye is to alert a reentry drilling engineer prior to encountering the source.

(B) Upon decommissioning a well where a radioactive source has been cemented in place behind a casing string above total depth, a standard color-dyed cement plug must be placed opposite the decommissioned source and a whipstock or other approved deflection device placed on top of the plug. The standard color-dyed cement plug must have a minimum 100-foot cement plug set opposite the source, extending at least 50 feet above and 50 feet below the source.

(C) In the event a permittee finds that after expending a reasonable effort it is not possible to decommission the source as prescribed in subparagraphs (A) and (B) of this section, the permittee may seek department approval for an alternate decommission procedure.

(D) If the hole is later sidetracked above the source, the sidetracked hole must be controlled to ensure that it is at least 15 feet away from the source.

(b) Upon permanent decommission of any well in which a radioactive source is left in the hole, and after removal of the wellhead, a permanent plaque must be attached to the top of the casing left in the hole in such a manner that reentry cannot be accomplished without disturbing the plaque. This plaque will serve as a visual warning that a radioactive source has been decommissioned in place in the well. The plaque must contain the trefoil radiation symbol with a radioactive warning and must be constructed of a long-lasting material such as monel or brass, in accordance with specifications established by the department. Additionally, the plaque must be labeled with the well name, API number, and "Oregon Department of Geology and Mineral Industries."

(c) A plugging report must be filed with the department and must identify the well as a decommissioned radioactive source well and include a signed affidavit stating that all plugging reports are accurate and comply with OAR 632-010-0015.

(d) The permittee must erect, under supervision of the department, a standardized permanent surface marker as a visual warning showing that the well contains a radioactive source. This marker must contain the following information: well name, API number, surface location, name of the permittee, name of the lease, the source or material decommissioned in the well, the total depth of the well, the depth at which the source is decommissioned, the plug-back depth, the date of the decommission of the source, the activity of the source, and a warning not to drill below the plug-back depth;

(4) The department will maintain a list of all decommissioned radioactive source wells.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0016

Enclosure and Identification of Wells, Tanks, and Other Oil Measuring Devices

(1) The permittee must identify every well, tank, sump, or other oil-measuring device. Identification must include a sign posted in a conspicuous place near the well, tank, sump, or device with the following information:

- (a) Name of permittee;
- (b) Name of lessee;
- (c) Section, township, and range;
- (d) The department's phone number and web page address;
- (e) A 24-hour emergency telephone number; and
- (f) In addition, for wells, the API number must also be included.

(2) The department may require that a well or sump be fenced or walled to a minimum height of 8 feet. Such an enclosure is to be kept locked to protect life, wildlife, and property. Identification signs described in (1) of this rule must be prominently displayed.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0017

Well Records (Logs)

(1) During the drilling, redrilling, deepening, or reworking of a well (except seismic, core, or other shallow wells drilled solely for geological data), the permittee must keep a detailed and accurate record of the well and have it available at the well site for review by the department. The well record is to progressively describe the strata, water, and oil or gas (or both) encountered. All additional information collected shall be made available to the department, including but not limited to the following: pressures, test results, caving strata, casing record, perforating, chemical treatment, and other pertinent information usually recorded in the normal procedure of drilling, provided that information submitted to the department need not include findings, interpretations, or conclusions derived from such data. This shall also include, if available, formation water chemistry analysis and hydrocarbon analysis including BTU content. All well records must include the exact surface location of the well. A copy of the records must be furnished to the department within 30 days after the completion, suspension, or decommission of any well.

(2) All well logging must be recorded. One digital copy and one paper copy is to be submitted to the department within 30 days after completion, suspension, or decommission.

(3) A complete set of cuttings, washed and dried, and correctly labeled and identified as to depth, must be filed with the department within 30 days after completion, suspension, or decommission. Core samples, if taken, would be made available to the department 30 days after analysis is completed.

(4) Well logs, electric logs, cuttings, and cores will be kept confidential by the State for a period of 2 years from the date of completion, suspension, or decommission of the well.

(a) This period of time may be extended by the department for the protection of the economic interests of the permittee of the well upon written request by the permittee showing good cause in the opinion of the department. The written request must be received by the department at least 30 days before the expiration of confidentiality. The request must include a proposed length of extension and reasons for such extension.

(b) A permittee may authorize the department to release records before the end of the 2-year confidentiality period by providing a written release from an officer of the company or its attorney-in-fact.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0018

Organization Reports

Every person acting as principal, agent for another, or independently engaged in drilling for, producing, or storing oil or gas in Oregon, must immediately file with the department an organization report on a form provided by the department. A supplementary report shall be filed immediately after any change occurs as to the facts stated in the original report.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2, f. 6-20-55; GMI 4-1985, f. & ef. 11-20-85; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0020

Surface Equipment

Meter fittings of adequate size to measure the gas efficiency for the purpose of obtaining gas-oil ratios must be installed on the gas vent-line of every separator. Wellhead equipment must be installed and maintained in good operating condition so that static bottom hole pressure may be obtained at any time by the duly authorized agents of the board or the department. Valves must be installed so that pressures can be readily obtained on both casing and tubing.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0128

Boiler or Light Plant

No open flame or source of sparks may be placed nearer than 150 feet from any producing well, hydrocarbon storage, or other flammable source.

Stat. Auth.: ORS 520
 Stats. Implemented: ORS 520.095
 Hist.: GMI 1, f. 1-27-54; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

**632-010-0130
 Rubbish or Debris**

Any rubbish or debris that might constitute a fire hazard must be removed to a distance of at least 150 feet from the vicinity of wells, tanks, and pump stations. All waste must be removed from the site upon completion, suspension, or decommission of the well and disposed of in such a manner as to avoid creating a fire hazard or contaminating streams and freshwater strata and in compliance with state and federal law, including any necessary permits.

Stat. Auth.: ORS 520
 Stats. Implemented: ORS 520.095
 Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

**632-010-0132
 Tubing**

All wells must be equipped with tubing. Production must be exclusively through tubing, unless otherwise approved by the department. The bottom of tubing on flowing wells may not be higher than 100 feet above the top of the producing horizon, or as otherwise approved by the department.

Stat. Auth.: ORS 520
 Stats. Implemented: ORS 520.095
 Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1981, f. & ef. 2-26-81; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

**632-010-0134
 Chokes**

All free-flowing wells must be equipped with chokes or beans adequate to control the flow thereof.

Stat. Auth.: ORS 520
 Stats. Implemented: ORS 520.095
 Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

**632-010-0136
 Separators**

All wells flowing oil and gas must be produced through an oil and gas separator.

Stat. Auth.: ORS 520
 Stats. Implemented: ORS 520.095
 Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

**632-010-0138
 Fire Walls**

Every permanent oil or condensate tank, or battery of tanks, must be surrounded by a dike or firewall with a capacity of one and one-half times that of the tank or battery of tanks.

Stat. Auth.: ORS 520
 Stats. Implemented: ORS 520.095
 Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

**632-010-0140
 Reserve Pits, Sumps, and Above-Ground Tanks**

(1) Materials or any fluid necessary to the drilling, production, or other operations by the permittee must be discharged to or placed in pits, sumps or above-ground tanks approved by the department and the Oregon Department of Environmental Quality. The permittee must provide pits, sumps, or tanks of adequate capacity and design to retain all materials. Under no circumstances are the contents of a pit or sump allowed to:

- (a) Contaminate streams, artificial canals or waterways, ground-water, lakes, rivers, or other water bodies; or
- (b) Adversely affect the environment, including but not limited to, persons, plants, fish, and wildlife and their populations.

(2) When no longer needed, and within one year of completion of drilling operations, fluid in pits, sumps, or tanks must be disposed of in a manner approved by the Oregon Department of Environmental Quality. In addition, sumps must be filled and covered and the premises reclaimed. Restoration is not required if arrangements are made with the surface owner to leave the site suitable for a secondary beneficial use that is compatible with the applicable local comprehensive plan and land use regulations. The permittee must notify the department to inspect the site reclamation.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095
 Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

**632-010-0142
 Directional Drilling**

(1) Any well intentionally deviated from the vertical must be surveyed at intervals of at least 250 feet to determine the location of the borehole at those intervals. Deviation from the vertical for short distances is permitted without special permission to straighten the hole, sidetrack junk, or correct other mechanical difficulties.

(2) Except for the purpose of straightening the hole, sidetracking junk, or correcting mechanical difficulties as provided in this rule, no well may be intentionally deviated from the vertical unless the permittee files an application and obtains a permit from the department.

(a) Prior to drilling, an application to deviate a well may be approved as part of the drilling permit.

(b) If drilling is in progress, the permittee must notify the department immediately of the deviation of the hole or of the intention to deviate the hole. When a permittee follows this procedure, an application must be submitted as soon as practicable to obtain a permit. The application for a permit to deviate the hole is to be submitted to the department along with the appropriate fee pursuant to ORS 520.017 and must include:

(A) Surface location in terms of distances from lease and section boundaries, and plan coordinates of top of producing interval and bottom of hole from surface location;

(B) Reason for deviation;

(C) If the proposed or final location of the producing interval of the directionally deviated well is not in compliance with the spacing or other rules applicable to the reservoir:

(i) List of affected mineral rights owners or evidence that the applicant is the only affected mineral rights owner. For the purposes of this rule, affected mineral rights owners are the mineral rights owners in adjoining or cornering drilling or spacing units toward which the well is to be deviated;

(ii) A plat of the lease and of all affected leases showing the names of all affected mineral rights owners and the surface and proposed producing interval locations of the well. The plat must be drawn to a scale that allows easy observation of all pertinent data; and

(D) Other information as the department may require.

(3)(a) The department will notify all affected mineral rights owners, located in drilling or spacing units toward which a well is being directionally drilled, of the proposed deviation before approving an application. Approval of the application to deviate will be granted or denied at the discretion of the department. Affected mineral rights owners may submit a written request for a hearing to consider the application. If any such mineral rights owner requests a hearing within 20 days of the date of the department's notice, the hearing will be held without undue delay by the board or its designated representative. If no request for a hearing is made within 20 days of the department's notice, the department may approve the application.

(b) If the applicant is the only affected mineral rights owner or has leased the right to drill from the only affected mineral rights owner or has obtained a waiver from the affected mineral rights owner and the department does not object to the application, the department may approve the application immediately.

(c) If a well is being directionally drilled as part of a continuous drilling operation, the department may permit deviation of the well without providing a 20-day notice to all affected mineral rights owners in spacing units toward which the well is being directionally drilled. If a well is completed in a setback location, affected mineral rights owners will be notified and a public hearing will be held, if requested.

(4) Upon completion, suspension, or decommission of a well, whichever comes first, the permittee must file a complete directional survey, obtained by approved well surveying methods, with the department, together with other regularly required reports.

Stat. Auth.: ORS 520
 Stats. Implemented: ORS 520.095
 Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0144

Report of Perforating or Well Stimulation Treatment

Within 60 days after either the perforating or well stimulation treatment of a well, the permittee must file a report with the department describing the perforation or stimulation procedures used and the results obtained.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0146

Vacuum Pumps Prohibited

The use of vacuum pumps or other devices for the purpose of putting a vacuum on any gas- or oil-bearing stratum is prohibited, unless approved by the department.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0148

Production Practice

Naturally flowing wells must be produced at a continuous uniform rate as far as is practical, in keeping with the current allowable, unless the board specifically permits stop-cocking to reduce the gas-oil ratio.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0150

Removal Of Casing

No person may remove a casing, or any portion of a casing, from a well without first giving advance written notice and obtaining written approval from the department.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 4-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0151

Notification of Fire, Breaks, Leaks, or Blowouts

(1) All persons controlling or operating any well, receiving tank, storage tanks, or receiving and storage receptacle where crude oil is produced, received, or stored must immediately notify the local fire marshal and the department, giving full details concerning all fires that occur at such oil or gas wells or tanks or receptacles on their property, and immediately report any breaks in tanks or receptacles and pipelines where oil or gas is escaping or has escaped.

(2) In all reports of fires, breaks, leaks, or escapes, or other accidents of this nature, the following information must be provided:

(a) The location of the well, tank receptacle, or line break by section, township, range, tax lot, and latitude/longitude, as well as the name of the landowner, so that the exact location can be readily located on the ground;

(b) The steps that have been taken, or are in progress, to remedy the situation reported; and

(c) The quantity of oil or gas lost, destroyed, or permitted to escape.

(3) In case any tank or receptacle is overfilled, the escape must be reported as in the case of a leak.

(4) Notify the department of all blowouts.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82 ; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0152

Multiple Completion of Wells

Neither oil or gas may be produced from different strata through the same tubing without the prior approval of the department. The approval of the department will require evidence of adequate and complete separation as ascertained by pressure or circulated tests conducted at the time the packers are set. Subsequently, if packer leakage is suspected, the department may require the permittee to provide proof of adequate and complete separation of the pools involved in the completion, or perform a packer leakage test. The permittee must notify the department prior to performing a packer leakage test so that a representative may be on site to observe. The department may also require the permittee to demonstrate the operation of multiple completion of a well.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0154

Determining and Naming Fields and Pools

(1) Field names and boundaries are determined by the board after establishment of evidence acceptable to the board that geologic, geographic, or other conditions warrant the assignment of a new field designation.

(2) Wells are classified by the pool from which they produce, and pools are named by the department.

(3) A permittee making new field or pool discoveries may recommend names to the department.

(4) Any person dissatisfied with a new field designation or a well or pool classification or determination may request in writing a reconsideration by the board.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0156

Spacing Units, Notification

(1) Immediately upon the discovery of any pool, or at any time after the effective date of this rule, the board may prescribe spacing units for each pool and specify the size, shape, and location and establish field limits and special rules.

(2) Before establishing spacing units, field limits, and special rules, the board will schedule and hold a hearing. Notification will be provided to mineral owners in the area surrounding the discovery well according to the following:

(a) In areas of the state with surveyed sections, and where the top of the productive interval in the well is at a depth of less than 7,000 feet below the surface, the department will notify mineral owners in the 160-acre quarter section where the well is located. If the top of the productive interval is located within 250 feet from any 160-acre quarter section line, the department will notify mineral owners in the affected adjacent quarter sections;

(b) In areas of the state with surveyed sections, and where the top of the productive interval in the well is at a depth of 7,000 feet or greater below the surface, the department will notify mineral owners in the 160-acre quarter section where the well is located and in the eight surrounding quarter sections;

(c) In areas of the state that are without surveyed sections, the department will notify mineral owners located within the boundary of a superimposed 640-acre section, with the well being in the center of the section, and the superimposed section will be oriented north-south.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0157

Exceptions to Special Rules

(1) The board may grant exception to special rules after holding a hearing, when necessary, on the basis of geology, productivity, topography, or environmental protection.

(2) Before granting an exception for a well proposed within the setback distance set forth in a special rule, the department will notify mineral owners in the spacing unit where the well is proposed to be drilled and in the adjacent spacing unit(s) within the setback distance. A mineral owner may request a hearing by the board to consider the application. The owner must request hearing within 20 days of the date of the department notice or waive the right to one. If no written request for a hearing is made, the department may issue a permit for the proposed well. If the applicant is the only mineral owner in the adjacent spacing units, or has leased the right to drill from the mineral owner(s) in the adjacent spacing units, and has obtained a written waiver from these mineral owners to allow the drilling, the department may approve the application immediately.

(3) If a mineral rights owner submits a written request for a hearing, it will be held within 30 days of receipt of request, provided the request is made within the 20-day period specified in section (2) of this rule. A mineral owner must request hearing within 20 days or waive the right to one. Any order by the department or board granting an exception to special rules under this rule will include provisions to prevent the

production from the proposed well in excess of its just and equitable share of oil and/or gas in the pool.

(4) If a permittee proposes to change the planned location of a well, such that it will not comply with the setback distances in a special rule, an exception necessary for the permit to remain valid may be granted according to the process above.

(5) Whenever a uniform spacing plan has been prescribed for any pool, exceptions may be permitted if the board finds, after notice and hearing, that conditions within the pool are such that the special rules would be impracticable.

Stat. Auth.: ORS 516.090, 520.095, 522.019, 522.305, 522.405, 522.434 & 522.545
Stats. Implemented: ORS 520.095
Hist.: GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0159

Underground Reservoirs for Natural Gas Storage

Rules providing for well spacing and proration of gas do not apply to gas storage wells, injection wells, or monitor wells.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0161

Compulsory Integration Orders

(1) Definitions. For purposes of this rule:

(a) "Costs" include:

(A) "Drilling costs," which means all reasonable costs and expenses of drilling, redrilling, reworking, deepening, plugging back, testing, and completing the well; and

(B) "Production costs," which means all reasonable on-site costs and expenses of production and production equipment for the well, including wellhead, but not pipeline costs and not overhead.

(b) "Participating owner" means each owner in the spacing unit who, prior to commencement of drilling operations, entered into a written agreement with the operator to share costs, production, and entitlements. However, where no such agreement has been reached, an owner, who prior to drilling tendered the operator a written agreement to pay not less than the owner's pro rata share of costs attributable to the owner's interest, as computed in section (2) of this rule, in the spacing unit in exchange for a share of production and entitlements, will be considered to be a participating owner and to have entered into a constructive agreement to that effect.

(2) Timing. In the absence of a voluntary integration agreement for the entire spacing unit, the board will enter an order integrating all mineral rights ownership interests in a spacing unit pursuant to ORS 520.220(2), at any time following the entry of an order establishing the spacing unit for a pool pursuant to ORS 520.210.

(3) Determination of Interests. A compulsory integration order determines the interest of each mineral rights owner in the spacing unit by dividing:

(a) The number of surface acres subject to an owner's mineral rights located in the spacing unit; by

(b) The total number of surface acres in the spacing unit.

(4) Content. The compulsory integration order will provide for the drilling, if necessary, and operation of the well on the spacing unit for the sharing of production and for the payment of costs.

(5) Effective Date. The compulsory integration order becomes effective on the date of initial production, unless the board establishes another date.

(6) Allocation of Costs and Earnings:

(a) The compulsory integration order will treat the operator and participating owners as a single entity. The operator-participating owners' entity is entitled to share production and pay costs, both in proportion to the total interest, as computed under section (2) of this rule, of the operator-participating owners' entity in the spacing unit. The express and constructive agreements between the operator and participating owner(s) control the allocations of production and costs attributable to the operator-participating owners' entity; and

(b) The compulsory integration order will allocate each non-participating owner a full share in production in proportion to the owner's interest in the spacing unit subject to royalty obligations, if any.

(c) The compulsory integration order will authorize the operator-participating owners' entity to withhold from each nonparticipating owner's share of production a pro rata share of drilling and production costs. The pro-rata share of costs may also be subject to a multiplier established by the Board to compensate the operator-participating owners assumption of risks associated with production.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095

Hist.: GMI 3-1982, f. & ef. 8-16-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0162

Illegal Production

No purchaser, producer, operator, permittee, or any other person may produce any crude oil, natural gas, or waste oil from any spacing unit or pool in this state except in accordance with the rules, regulations, and orders of the board.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0163

Limitation of Production

In the absence of unitization, whenever the board, after notice and hearing, finds that waste as defined in ORS 520.005 is occurring or is imminent in any oil or gas field or pool, and that the production of oil or gas from such field or pool should be limited to prevent waste, then the board must issue an order limiting production from the field or pool and specify rules for the allocation or distribution of allowable production as provided for in 520.005(11) and 520.015.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0164

Commingle of Production Prohibited

The production from one pool must not be commingled with that from another pool in the same well before delivery to a purchaser, unless otherwise approved by the board.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0165

Allocation of Gas Pursuant to Special Pool Rules

Whenever the full production from any pool producing natural gas is in excess of the market demand for gas from that pool, any permittee or interest owner, pursuant to ORS 520.115, may petition the board for a hearing and an order establishing a method of determining the market demand from the pool and of distributing that demand among the producing wells.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0166

Reports by Purchasers and Producers

(1) Purchasers: Each purchaser or taker of any oil or gas from any well, lease, or pool must, on or before the last day of each month succeeding the month in which the purchasing or taking occurs, file with the department, on a form furnished by the department, a signed report of all oil or gas purchased or taken from any such well, lease, or pool during the preceding month.

(2) Producers: The producer or permittee of a well or spacing unit must, on or before the last day of each month succeeding the month in which the production occurs, file with the department, on a form furnished by the department or other form acceptable to the department a signed report of all production made by each well.

(3) If the purchaser and the producer are the same, only one report need be submitted.

(4) Information submitted in accordance with sections (1), (2), and (3) of this rule shall not be confidential.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095
Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0167

Maximum Efficient Rate Hearings

A hearing to determine the maximum efficiency rate at which any pool in the state can produce oil and gas without waste may be held by the board on its own motion or at the request of any interested party.

Stat. Auth.: ORS 520
Stats. Implemented: ORS 520.095

Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0168

Use of Earthen Reservoirs

Oil may not be stored or retained in earthen reservoirs or in open receptacles.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0170

Reservoir Surveys

The board, by order, may require the permittee of a well producing oil or gas to conduct periodic surveys of the reservoirs in the state that contain oil or gas or both. These surveys must be thorough and complete and conducted under the supervision of the department. Each survey must address the condition of the reservoirs containing oil or gas, or both, and the practices and methods employed by the permittee. Such investigation must include, but need not be limited to: the volume and source of crude oil and natural gas; the pressure of the reservoir as an average; the areas of regional or differential pressure; stabilized gas-oil ratios; and the producing characteristics of the field as a whole and of the individual wells within the field.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0172

Operators to Assist in Reservoir Surveys

All permittees of oil or gas wells intercepting a reservoir are required to conduct a survey as required under OAR 632-010-0170 and to assist the representatives of the board and the department in making any and all tests, including bottom hole pressure and gas-oil ratio determinations, required by the board or department on any or all of such operators' wells.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0174

Measurement of Potential Open-Flow of Gas Wells

The permittee must determine the potential open-flow of a gas well by U.S. Department of Energy back-pressure method unless the department approves in writing the use of an alternative method.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0176

Supervision of Open-Flow and Pressure Tests

All tests made in determining the potential flow and shut-in, well-head, or bottom hole pressure of a gas well must be conducted by the permittee and may be monitored by the department to ensure that:

- (1) Initial flow to the surface is accomplished during daylight hours;
- (2) Gas will be flared during tests when feasible; and
- (3) Proper safety precautions are taken to prevent fire or explosion during tests.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0178

Duration of Tests

The permittee must test for open-flow and pressure of completed gas wells at such intervals and continue for such time as is necessary to effect accurate determination. The permittee must file a report of all tests with the department within 60 days of the completed test.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0182

Gas to Be Metered

(1) Meters: All gas sold must be metered with a meter of sufficient capacity, provided that gas may be metered from a lease or unitized property as a whole, if it is shown that a ratable taking can be maintained.

Meters are not required for gas produced and used on the lease for development purposes and lease operations.

(2) Meter Charts and Records: Purchasers must keep meter charts and gas purchase records for a period of at least two years and make the charts and records available to the department.

(3) Bypasses: Bypasses are not to be connected around meters or points where custody of the fluid is transferred.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0184

Direct Well Pressure

Where gas release to the atmosphere is involved, the use of direct well pressure to operate any machinery is prohibited.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0186

Gas-Oil Ratio

No well is permitted to produce gas in excess of the maximum ratio determined for a pool unless all gas produced in excess is returned to the pool.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0188

Gas-Oil Ratio Surveys and Reports

Gas-oil ratios and surveys must be taken in the manner prescribed by the board for individual fields where gas-oil ratio limits have been fixed and in accordance with the rules prescribed for each individual pool.

(1) Flowing Wells Intermittently (Stop-Cocked) Produced: In computing the operating gas-oil ratio, the total volume of gas and the total barrels of oil that are produced in order to obtain the daily oil allowable must be used regardless of the flowing time in the 24-hour period.

(2) Gas Lift or Jet Wells: The total volume of gas to be used in computing the operating gas-oil ratio is the total output volume minus the total input volume.

(3) Pumping Wells: Gas withdrawn from the casing in an attempt to maintain a fluid seal, or for any other reason, must be added to the gas produced through tubing in computing the gas-oil ratio.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0190

Gas Utilization

(1) A permittee must not allow hydrocarbon gas to escape to the atmosphere except for short periods outside of normal drilling operations and testing or flowing wells during workovers or repairs when an escape has been preauthorized by the department.

(2) Unless otherwise directed by the board, produced gas must be flared.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0192

Disposal of Brine or Salt Water

In addition to the requirements of ORS 520.095(1), and in addition to applicable rules of the Oregon Department of Environmental Quality and the Oregon Water Resources Department, the following requirements apply to the disposal of brine or saltwater liquids:

(1) Disposal in pits, sumps or above ground tanks:

(a) Brine or saltwater may be disposed of by evaporation when impounded in excavated earthen pits, but only when the pits are lined with impervious material and a Water Pollution Control Facilities permit has been obtained from the Oregon Department of Environmental Quality;

(b) Impounding brine or saltwater in porous earthen pits is prohibited. Earthen pits used for impounding brine or saltwater must be constructed and maintained to prevent the escape of fluid;

(c) The department has the authority to prohibit the use of any pit that does not properly impound water and to order the proper disposal of water impounded in the pit;

(d) The level of brine or saltwater in earthen pits may not rise above the lowest point of the ground surface level. All pits must have a continuous embankment surrounding them sufficient to prevent surface water from running into the pit. An embankment may not be used to impound brine or saltwater; and

(e) Brine or saltwater impounded in earthen pits may not escape onto adjacent land or into waters of the state.

(2) Disposal by Injection: Saltwater may also be disposed of by injection into the strata from which it was produced or into other proved saltwater-bearing strata pursuant to an Underground Injection Control permit issued by the Oregon Department of Environmental Quality.

(3) Ocean discharge of saltwater may be permitted pursuant to a National Pollutant Discharge Elimination System permit issued by the Oregon Department of Environmental Quality.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0194

Water Injection and Water Flooding of Oil and Gas Properties

(1) Application and Approval: The permittee of a well may inject water under pressure into the formation containing oil or gas for the purpose of obtaining oil or gas from the reservoir, upon application to and approval by the Oregon Department of Environmental Quality. No water injection or water flooding program may be instituted until it has been authorized by the Oregon Department of Environmental Quality.

(2) Casing and Cement: Wells used for the injection of water into the producing formation or repressuring wells must be cased with sound casing so as not to permit leakage, and the casing must be cemented in a manner such that damage will not be caused to oil, gas, or freshwater resources.

(3) Application, Contents, Notice, Objection, Hearing, and Approval:

(a) An application for use of water injection must be verified and filed with the department and include:

(A) The location of the injection well;

(B) The location of all oil and gas wells, including any wells and dry holes, and the names of mineral rights owners within one-half mile of the injection well;

(C) The formations from which wells are producing or have produced;

(D) The name, description, and depth of the formations to be injected;

(E) The elevations of the top of the oil- or gas-bearing formation in the injection well and the wells producing from the same formation within one-half mile radius of the injection well;

(F) The log of the injection well or similar available information;

(G) Description of the injection well casing;

(H) Description of the liquid, stating the kind, where obtained, and the estimated amounts to be injected daily;

(I) The names and addresses of the permittees; and

(J) Other information as the department may require to ascertain whether the injection or flooding may be safely and legally made.

(b) Applications may be made to include the use of more than one injection well on the same spacing unit, or on more than one spacing unit;

(c) Applications must be executed by all permittees who are to participate in the proposed water injection or water flooding plan.

(4) Notice of Commencement and Discontinuance of Water Injection or Water Flooding Operations:

(a) Immediately upon the commencement of water injection or water flooding operations, the applicant must notify the department;

(b) Within 10 days after the discontinuance of water injection or water flooding operations, the permittee must notify the department of the date of discontinuance and the reasons for the discontinuance; and

(c) Before any injection well is decommissioned, the permittee must submit an application to the department, per OAR 632-010-0198.

(5) Records. The permittee must keep the following records and make them available to the department:

(a) The amount of water injected into the injection wells;

(b) The total amount of water produced; and

(c) The total amount of oil or gas produced from the area flooded.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0196

Gas Injection of Oil and Gas Properties

In addition to the requirements of ORS 520.095(1), OAR 632-010-0002 through 632-010-0240 and any other applicable statutes, orders, or rules, wells drilled for the purpose of storing natural gas in an underground reservoir must be drilled in a manner that protects the underground reservoir against contamination and against waste of natural gas.

(1) Application and Approval: After applying for and receiving approval, the permittee of any well or proposed well may inject gas under pressure into the formation containing water, oil or gas for the purpose of increasing production of oil or gas from the reservoir or for storing natural gas.

(2) Casing and Cement: Wells used for the injection of gas into the producing formation must be cased with sound casing so as not to permit leakage, and the casing must be cemented in a manner such that damage will not be caused to oil, gas, or freshwater resources. All injection of gas must be through tubing with a casing packer set at the lower end above the zone of injection, and the annular space between tubing and casing must be monitored to be sure the packer is holding. The requirement for a casing packer may be waived by the department for temporary test injection into a depleted or partially depleted gas pool when an existing well is utilized as the temporary injection well. Prior to temporary injection, the casing must be tested for mechanical integrity to verify that there are no leaks in the casing. The department must be notified of all mechanical integrity tests.

(3) Application, Contents, Notice, Objection, Hearing, and Approval:

(a) No gas may be injected into a well until approved by the department pursuant to application and notice as herein required;

(b) A written request for gas injection of oil and gas properties must be submitted to the department and include the following:

(A) The location of the injection well;

(B) The location and depth of all oil and gas wells and the names of mineral rights owners within a one-half mile radius of the injection well;

(C) The name, description, and depth of the formations from which wells are producing or have produced;

(D) The name, description, and depth of the formations to be injected;

(E) The depths of each formation into which gas is to be injected;

(F) The elevations of the top of the oil- or gas-bearing formation in the injection well and the wells producing from the same formation within one-half mile of the injection well;

(G) The log of the injection well, or similar available information;

(H) Description of the injection well casing;

(I) The estimated amounts to be injected daily and the proposed injection pressure;

(J) An engineering and geological study of the proposed injection site including:

(i) Characteristics of reservoir and caprock, including areal extent, thickness, and lithology;

(ii) Remaining gas or oil reserves of storage zones, including calculations, if applicable;

(iii) If an aquifer is to be injected, known water wells, aquifer extent, thickness, and water quality; and

(iv) Proposed use of monitor wells for the project;

(K) The names and addresses of the permittees; and

(L) Other information the department may require to ascertain whether the gas injection plan meets the requirements of law and does not pose a significant risk to human health or the environment.

(c) Applications may be made to include the use of more than one injection well on the same spacing unit or on more than one spacing unit; and

(d) Applications must be executed by all permittees who are to participate in the proposed gas injection plan.

(4) Notice of Commencement and Discontinuance of Gas Injection.

(a) The permittee must notify the department at least 10 days prior to the commencement of gas injection operations.

(b) Within 10 days after the discontinuance of gas injection operations, the permittee must notify the department of the date of discontinuance and the reasons for the discontinuance.

(c) Before any injection well is decommissioned, the permittee must submit an application to the department per OAR 632-010-0198.

(d) The above notification requirements do not apply to a gas storage facility except for the initial injection and filling of the reservoir and for the decommission of the storage reservoir.

(5) Records: The permittee must keep the following records and make them available to the department:

(a) The amount of gas injected into the injection wells;

(b) The amount of gas produced;

(c) The amount of oil produced from leases affected by the gas injection; and

(d) The well-head injection pressures.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1979, f. & ef. 1-25-79; GMI 1-1982, f. & ef. 6-25-82; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; GMI 2-1996, f. & cert. ef. 7-10-96; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0198

Abandonment, Unlawful Abandonment, Suspension, Well Plugging

(1) Proper completion and decommission require adequate protection of the environment and of aesthetic qualities of the surface in the area of operation. (2) A well is properly completed for the purposes of this chapter when the permittee demonstrates to the satisfaction of the department that the well is capable of effective production or reinjection and appropriate equipment exists for flow testing and monitoring temperature, pressure or other subsurface conditions.

(3) A well is considered properly plugged and decommissioned, for the purposes of this chapter, when the conditions of ORS 520.005 to 520.991 and these rules are fulfilled and the person has shown to the satisfaction of the department that all proper steps have been taken to protect groundwater and surface water from contamination resulting from the drilling or drilling related activities and to prevent the commingling of fluids between zones or to surface.

(4) All holes must be plugged and all related disturbance must be reclaimed in accordance with these rules as soon as practical. A hole may not be left unplugged for longer than 30 days from the completion of drilling operations and prior to completion of the well without prior written approval from the department.

(5) Suspension: The department may authorize a permittee to suspend operations or remove equipment from a well for the period stated in the department's written authorization, upon receipt of a written request from the permittee showing good cause. The period of suspension may be extended by the department, upon written request made before expiration of the previously authorized suspension, accompanied by a statement by the permittee showing good cause.

(6) Decommission: Before any work is commenced to decommission a well drilled for oil or gas, the permittee must give notice to the department of the intention to decommission such well. If verbal notice is given but plugging is not planned within 10 days, written notice must also be given within 10 days. The notice must be given on forms supplied by the department and must contain the present condition of the well, proposed work, and such other information as reasonably may be required by the department.

(7) Unlawful Abandonment.

(a) After operations on or at a well have been suspended with the approval of the department pursuant to section (2) of this rule, if operations are not resumed within 30 days from the date specified in the suspension approval, the well is considered unlawfully abandoned unless the permittee has obtained a written extension from the department. Written application showing good cause is required for the extension to be considered.

(b) If a permittee has not paid the annual permit renewal fee, or any other fees owed, within 60 days after the anniversary date, the well is considered out of compliance, and the permittee is subject to enforcement for violation of these rules and the department may issue an order requiring the permittee to decommission the well.

(c) If a well is left idle for a period of 30 consecutive days without a written request for suspended status, the well is considered unlawfully abandoned.

(d) Upon any unlawful abandonment as defined in these rules, notice will be sent to the permittee and to the permittee's surety informing them the department has determined the well unlawfully abandoned.

(e) Any well unlawfully abandoned may be plugged, suspended, or otherwise repaired by the department using the bond or other financial security, and if the bond or other financial security is not sufficient, the department may bring an action or proceeding as authorized by ORS 520.175.

(8) Plugging Methods and Procedure: The methods and procedure for plugging a well are as follows:

(a) Producing strata and strata having fluid at greater than hydrostatic pressure must be plugged with cement from at least 50 feet below the top of each fluid-bearing zone to at least 50 feet above the top of each zone;

(b) A cement plug not less than 100 feet in length must be placed across the base of the freshwater-bearing strata in an uncased hole;

(c) When there is an open hole below the base of any casing, a cement plug not less than 100 feet in length must be placed to extend at least 50 feet above and at least 50 feet below the base of the casing; the department may require a pressure test on the casing shoe plug to document that an adequate seal was achieved.

(d) The top of all casing strings must be cut off at least 4 feet below ground surface, and casing and all annuli must be plugged with cement to a depth of at least 10 feet;

(e) The permittee will have the following options as to the method for placing cement in the hole:

(A) Dump bailer;

(B) Pump through tubing or drill pipe; or

(C) Other method approved by the department.

(f) The interval between plugs must be filled with an approved heavy mud-laden fluid.

(9) Reclamation of surface lands affected by these operations is intended to return the surface to pre-exploration condition and/or beneficial use that is compatible with the local land use designation for the parcel(s).

(10) Affidavit on completion: Within 60 days after a well is plugged, the permittee must file a written statement with the department certifying that the well was properly plugged and decommissioned.

(11) Wells Used for Fresh Water:

(a) When an oil or gas well is proposed to be decommissioned and may safely be used as a freshwater well and such use is desired by the landowner, the well need not be filled above the required sealing plug set below fresh water, provided authorization is obtained from the Oregon Water Resources Department;

(b) Application for leaving a well partially unplugged as a freshwater well must be submitted to the department by the landowner, together with evidence of a permit and security from the Oregon Water Resources Department or its statement that neither a permit nor a bond is required; and

(c) The permittee must leave a freshwater well in a condition approved by the department.

(12) The surety furnished by permittee may not be released until all procedures required by these rules have been completed and the department has authorized such release.

(13) The affected surface lands must be restored to a pre-exploration and/or beneficial use acceptable to the department, after consultation with the surface owner. Reclamation activities may include, but are not limited to replanting or reseeding of affected land for return to secondary beneficial use that is compatible with the land-use designation.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 3, f. 4-3-56; GMI 1-1982, f. & ef. 6-25-82; GMI 1-1985(Temp), f. & ef. 6-7-85; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0205

Drilling Surety Bond

(1)(a) Every person who engages in the drilling, redrilling, or reworking of any well or disposal well must file and maintain with the department, on a form provided by the department a bond or alternative form of financial security in the sum of \$25,000 for each well drilled, redrilled, deepened, or reworked to a depth less than 10,000 feet, or \$50,000 for each well to a depth greater than 10,000 feet. The security must be filed with the department prior to the approval of an application to drill, redrill, deepen, or rework as required in OAR 632-010-0010. A security may be submitted individually for each well, or a blanket security may be filed as described in (b) below.

(b) In multi-well operations, a blanket bond or alternative form of security in the minimum amount of \$150,000 may be filed in lieu of individual bonds or securities. The blanket amount must be computed as the sum of the applicable individual bond or security amounts required for each well. The department may exclude the following wells from the blanket bond or security computation:

(A) Any well that has a gross annual wellhead production in dollars during the past twelve months that is greater than the amount of the required individual well bond. It is the responsibility of the well permittee to file for exclusions annually prior to the permit anniversary date.

(c) The bond or security must be executed by the permittee, as principal, and by a company authorized to do business as a surety insurer in the State of Oregon, as surety, and be conditioned upon the faithful compliance by the principal with the statutes, rules, and orders of the department and the board.

(2) Any bond or security submitted as required by this section may, with the consent of the department, be terminated and cancelled and the surety relieved of all obligations thereunder. However, the department will not consent to termination and cancellation of any bond until the well or wells covered by such bond have been properly plugged and decommissioned including site reclamation, with the approval of the department, or another valid bond has been submitted and approved.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1-1979, f. & ef. 1-25-79; GMI 4-1985, f. & ef. 11-20-85; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; GMI 3-1997, f. & cert. ef. 12-3-97; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0210

Disposal of Solid and Liquid Wastes

(1)(a) Permit stipulations by the Oregon Department of Environmental Quality regarding disposal of solid and liquid wastes generated by drilling, redrilling, deepening, or reworking operations are deemed to be a requirement of every permit issued under OAR 632-010-0010.

(b) All wells used for disposal of solid and liquid wastes must be equipped with tubing and packers and be tested for mechanical integrity at least once every five years to determine that there are no leaks in the casing, tubing, or packers, and that there is no fluid movement into an underground source of water, other than that from which the fluid was produced, unless otherwise approved by the department. Acceptable tests include pressuring the tubing and casing annuli to demonstrate the integrity of the casing, tubing, and packers. Tracer surveys, noise logs, temperature logs, spinner surveys, or other methods approved by the department may be used to detect water movement adjacent to the wellbore. The department must be notified of all mechanical integrity tests, and the results submitted as required by OAR 632-010-0017.

(2) Once field development is initiated, a separate permit is required from the Oregon Department of Environmental Quality for disposal of liquid and solid wastes.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1-1979, f. & ef. 1-25-79; GMI 4-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0220

Measurement of Oil

The volume of production of oil must be computed in terms of barrels of clean oil on the basis of properly calibrated meter measurements or tank measurement of oil level differences made and recorded to the nearest quarter inch, using 100 percent tank capacity tables, subject to the following corrections:

(1) Correction for Impurities: The percentage of impurities (water, sand, and other foreign substances not constituting a natural component part of oil) must be determined to the satisfaction of the department, and the observed gross volume of oil must be corrected to exclude the entire volume of such impurities.

(2) Temperature Correction: The observed volume of oil corrected for impurities must be further corrected to the standard volume at 15.55 degrees Centigrade (60 degrees Fahrenheit), in accordance with industry standards or any revisions thereof approved by the department.

(3) Gravity Determination: The gravity of oil at 15.55 degrees Centigrade (60 degrees Fahrenheit) must be determined in accordance with A.S.T.M. standards or any revisions thereof and any supplements thereto or any close approximation thereof approved by the department.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1-1979, f. & ef. 1-25-79; GMI 6-1990, f. & cert. ef. 12-5-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

Special Rules, Mist Gas Field

632-010-0225

Spacing Plan

(1) For purposes of this section, the Mist Gas Field refers to the following area:

(a) Sections 1 through 18, 20 through 29, 32 through 36 of T. 5 N., R. 4 W.;

(b) Sections 1, 2, 11, 12, of T. 5 N., R. 5 W.;

(c) Sections 3 through 10, 14 through 23, 25 through 36 of T. 6 N., R. 4 W.;

(d) Sections 1 through 36 of T. 6 N., R. 5 W.;

(e) Section 31 of T. 7 N., R. 4 W.; and

(f) Sections 13 through 36 of T. 7 N., R. 5 W., W.M.

(2) The minimum spacing for gas wells in the Mist Field is 160 acres when the top of the producing zone is less than 7,000 feet in vertical depth.

(3) The minimum spacing for gas wells in the Mist Field is 640 acres when the top of the producing zone is 7,000 feet or more in vertical depth.

(4) The spacing units are based upon the federal land grid of sections and quarter sections, or projected extensions of the grid if the affected lands are not surveyed.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1983, f. & ef. 12-8-83; GMI 4-1985, f. & ef. 11-20-85; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0230

Location of Wells

The completion location of each permitted well to be drilled on any spacing unit is the location of the well at the top of the producing horizon. For gas wells, the completion location of the well may not be located nearer than 250 feet from the unit boundary and 500 feet from the nearest producing well from the same pool.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1980, f. 2-29-80, ef. 3-1-80; GMI 4-1985, f. & ef. 11-20-85; DGMI 1-2013, f. & cert. ef. 3-21-13

632-010-0235

Exceptions

The department may grant exceptions to OAR 632-010-0225 and 632-010-0230 after holding a hearing, based on the geology, productivity, topography, enhancement requirements, or environmental protection.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1980, f. 2-29-80, ef. 3-1-80; GMI 4-1985, f. & ef. 11-20-85; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2013, f. & cert. ef. 3-21-13

DIVISION 15

INFORMATION AND SEISMIC TEST HOLES

632-015-0005

Information and Seismic Test Holes

These rules provide requirements for seismic and information hole operations, including financial security, groundwater protection, and surface reclamation.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0010

Definitions

The definitions in ORS 520.005 apply to this rule division. In addition, the following definitions apply:

(1) "Board" means the Governing Board of the State Department of Geology and Mineral Industries.

(2) "Department" means the Oregon Department of Geology and Mineral Industries.

(3) "Drilling Records" means an operational summary of any hole.

(4) "Groundwater" means any water, except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir or other body of surface water within Oregon, whatever may be the geological formation or structure in which such water stands, flows, percolates or otherwise moves.

(5) "Information Hole" means a hole drilled for information purposes in conjunction with oil or gas exploration operations and includes, but is not limited to, stratigraphic test holes, core holes, or other test holes.

(6) "Nonmetallic Plug" means a plugging device made of non-metallic and noncorrosive material that can be placed in a hole to prevent excess settling at the surface. An example of a nonmetallic plug is a plastic plug which conforms to the diameter of the hole.

(7) "Operator" means any person who is in charge of the development of a lease or the construction, development or operation of a seismic program or information hole operation subject to the division.

(8) "Permittee" means any person who has the right to conduct a seismic program or information hole operation and has received a permit or is an operator.

(9) "Seismic Explorer" means a person who conducts seismic research work by the means of drilling seismic shot holes for the placing or detonating of explosives.

(10) "Seismic Shot Hole (Seismic Hole)" means a hole that will be used for seismic operation purposes only.

(11) "Stratigraphic Test Hole" means an information hole that is less than 500 feet deep drilled for stratigraphic or geologic data or information only and not for production under any foreseeable conditions as determined by the department.

(12) "Sump" means an earthen containment area or a tank or other container, lined with a low permeability liner, located at the drilling site for the storage of drilling fluids or other material as part of a drilling operation.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0015

Application and Permit to Conduct Seismic and Information Hole Operations

(1) A person may not conduct seismic program or information hole operations until that person has applied for and received a permit from the department. A nonrefundable fee, pursuant to ORS 520.017, must accompany an application. The application must be submitted on a form provided by the department. The applicant must submit one paper copy and one electronic copy of the application and supporting documents.

(2) The application for a permit for seismic program or information hole operations must include:

(a) The approximate number, depth, and location of the seismic or information holes. In the case of seismic shot holes, the size of the explosive charges must be specified. The application must be accompanied by a map showing the location of the shot holes or information holes. This may be a seismic shot point map showing the location of the seismic lines with shot points where the holes will be located;

(b) The name, permanent address, and business phone number of the applicant;

(c) In the case of a seismic program, the name, permanent address, and business phone number of the seismic explorer, if different from the information in subsection (b) of this section;

(d) The name, permanent address, and business phone number of the hole plugging contractor, if different from the applicant and seismic explorer;

(e) A description of hole plugging procedures;

(f) The anticipated starting date of operations, including drilling;

(g) The anticipated completion date of operations, including plugging, and;

(h) Any other related data requested by the department.

(3) A single application for an information hole may include up to 5 information hole locations.

(4) Upon receipt of an application, the department will determine within 21 days if the application is complete. The department will notify the applicant of its determination in writing.

(5) The department will circulate each completed application to appropriate state agencies and the governing body of the county or city in which the seismic or information holes will be located. The agencies and governing body have 45 days from the date the department circulates the application in which to comment.

(6) The applicant is responsible for obtaining any required land use approval from the affected local government prior to beginning operations.

(7) Within 60 days after receipt of a complete application for a permit to conduct a seismic program or to drill an information hole, the

department shall issue or deny the permit unless the department determines that a longer period is necessary to respond to comments or new information, or for any other good cause.

(8) The department shall deny a permit if:

(a) The method of drilling, plugging, or reclamation of the seismic program or information hole operation does not comply with Oregon statutes, Oregon Administrative Rules, or any applicable orders of the board; or

(b) The applicant is currently not in compliance with ORS Chapter 520 or these rules with respect to a seismic program or information hole in Oregon; or

(c) The applicant currently has contracted, with respect to operations in Oregon, with a geophysical contractor, driller, or other explorer that currently has an unlawfully abandoned seismic program, or information hole pursuant to OAR 632-015-0040, or an oil or gas well pursuant to 632-010-0198 in Oregon or has not submitted plugging records from a previous seismic or information hole operation in the state of Oregon.

(9) If the department denies a permit application, it will notify the applicant upon determination of denial. Any person adversely affected by a decision of the department may appeal pursuant to OAR 632-015-0060.

(10) The department may temporarily suspend any seismic program or information hole operation not in compliance with Oregon statutes, Oregon Administrative Rules, any applicable orders of the board, or permit conditions.

(11) The department may revoke a permit if it determines that any of the grounds for denying a permit now exist, as specified in section (8) of this rule, or if any aspect of the operation does not comply with Oregon statutes, Oregon Administrative Rules, any applicable order of the board, or permit conditions.

(12) If seismic programs or information hole operations do not commence within one year from the date of issuance of the permit, the permit becomes invalid unless the permit term has been extended pursuant to this section. The permit may be extended by the department for good cause for a maximum of one additional year upon receipt of written request from the permittee, before the expiration date, giving reasons acceptable to the department for an extension.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0020

Seismic Shot Hole Operations

Seismic shot hole programs may not be conducted within 1/8 mile of any existing building, water well, flowing spring, stock water pipeline, sewer line, utility tunnel, or water or gas line, unless a written exception is granted by the department based on the applicant's demonstration, to the department's satisfaction, that the operation presents no significant danger to human health or the environment.

Stat. Auth.: ORS 529

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0025

Financial Security Requirements

(1) Before a permit may be issued for seismic programs or information hole operations, the applicant must submit a surety bond or other form of financial security acceptable to the department. The department will establish the amount of financial security based on estimated costs, but the amount may not be less than \$50,000. A surety bond must be executed by the applicant, as principal, and by a surety company authorized to do business in the State of Oregon, as surety, and conditioned upon the faithful compliance by the principal with Oregon statutes, Oregon Administrative Rules, any applicable order of the board, and permit conditions.

(2) Any security submitted as required by this section may, with the consent of the department, be terminated and cancelled and the surety relieved of all obligations thereunder. However, the department shall not consent to termination and cancellation of any security until the hole or holes covered by such security have been properly reclaimed, or another valid security has been submitted.

(3) Following completion of operations, the permittee may request that the department release the bond or other form of security. A bond or security may not be released until the department has deter-

mined that the permittee has complied with Oregon statutes, Oregon Administrative Rules, any applicable order of the board, and permit conditions.

Stat. Auth.: ORS 516.090 & 520.095
Stats. Implemented: ORS 520.027 & 520.095
Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0030**Compliance with Law**

The permittee for a seismic program or information hole operation is responsible for conducting all operations in compliance with Oregon statutes, Oregon Administrative Rules, any applicable order of the board or department, and permit conditions, and is subject to the penalties provided by Oregon statutes and these rules for failure to comply.

Stat. Auth.: ORS 516.090 & 520.095
Stats. Implemented: ORS 520.027 & 520.095
Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0035**Notices**

The permittee must give the department a minimum of 24 hours advance notice of plugging operations. For seismic shot hole plugging operations that are not a continuation of the initial drilling of the shot hole or part of the plugging procedures immediately following seismic program operations, the permittee must give the department a minimum of 24 hours advance notice of the plugging operations.

Stat. Auth.: ORS 516.090 & 520.095
Stats. Implemented: ORS 520.027 & 520.095
Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0040**Plugging Requirements**

(1) Proper completion and decommission require adequate protection of the environment and of aesthetic qualities of the surface in the area of operation.

(2) An information hole or seismic shot hole is properly completed for the purposes of this chapter when the permittee demonstrates to the satisfaction of the department that the information hole or shot hole has been constructed to the standard and requirement of the permit.

(3) An information hole or seismic shot hole is considered properly plugged and abandoned, for the purposes of this chapter, when the conditions of ORS 520.005 to 520.991 and these rules are fulfilled and the permittee has shown to the satisfaction of the department that all proper steps have been taken to protect groundwater and surface water from contamination resulting from the drilling or drilling related activities and to prevent the commingling of fluids between zones or the conveyance of fluids to the surface.

(4) All holes must be plugged and all related disturbance must be reclaimed in accordance with these rules as soon as practical. A hole may not be left unplugged for longer than 30 days from the completion of operations without prior written approval from the department.

(5) An Information hole must be cemented from the bottom up to a depth 4 feet from the ground surface through tubing to prevent cross-flow, erosion, waste, or contamination of groundwater.

(a) The hole must be filled and pressure grouted from bottom to top with cement, consisting of a neat cement weighing in excess of 15.0 pounds per gallon with not less than a viscosity of 36 (API Full Funnel Method);

(b) In no case may sand or aggregate be added to cement grout seal mixtures;

(c) Other fluids may be used upon approval of the department;

(d) Cement grout used as a sealing material must be placed or forced upward from the bottom of the hole in one continuous operation without significant interruption. If temporary outer surface casing is used in the construction of the hole, it must be withdrawn as the grout is placed;

(e) The top of all casing strings must be cut off at least 4 feet below ground surface and buried to a depth of at least four feet in such a manner as not to interfere with soil cultivation.

(6) All seismic shot holes must be plugged and reclaimed in a manner that prevents vertical movement of water in the hole.

(a) Seismic shot holes encountering groundwater must be cased and sealed with unhydrated bentonite at least 3/8 inch in diameter to 10 feet above the groundwater before explosives are used. Unhydrated bentonite materials used in plugging of a hole must be specifically designed for sealing wells and be within industry tolerances for dry western sodium

bentonite. The bentonite must be placed in the hole in a manner that prevents cross-flow, waste or contamination of groundwater.

(b) The following requirements apply to seismic shot holes not encountering groundwater:

(A) Such shot hole must be sealed with unhydrated bentonite at least 3/8 inch in diameter below the elevation that the explosives are used;

(B) Above the elevation that the explosives are used unhydrated bentonite at least 3/8 inch in diameter must be added from the top of the bentonite to the surface;

(C) A nonmetallic plug must be set at a depth of 3 feet below ground surface; cuttings added above the nonmetallic plug must be tamped;

(D) The operator must place a bentonite plug no less than 10 feet in length. If the shot hole is less than 10 feet in length, the entire hole must be plugged with unhydrated bentonite at least 3/8 inch in diameter.

(E) A small mound of cuttings must be left over the hole to allow for settling; and

(F) Any cuttings deposited on the surface around the seismic hole or information hole must be raked or otherwise spread so that the cuttings do not exceed 2 inches of the pre-existing land surface, except for a small mound left for settling.

(c) A seismic shot hole that encounters groundwater and caves in after detonation of an explosive charge must provide for the protection of groundwater by reopening the hole and plugging with cement and by placing a mound over the hole for settling as provided in subsections (3)(C) and (3)(D) of this rule.

(d) Alternative plugging procedures and materials may be utilized with the department's written approval when the operator has demonstrated to the department's satisfaction that the alternatives will protect water quality.

(7) All ground disturbance related to well site operation must be reclaimed to a secondary beneficial use that is compatible with the applicable local land comprehensive plan and land use regulations.

(8) Affidavit on completion: Within 60 days after an information hole or seismic shot hole is plugged, the operator must file a written statement with the department certifying that the well was properly plugged and affected areas reclaimed.

Stat. Auth.: ORS 516.090 & 520.095
Stats. Implemented: ORS 520.027 & 520.095
Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0045**Conversion to Water Well**

Permittee may convert the shot or information hole to a water well upon approval from the Oregon Department of Water Resources. The department may not release the permittee from complying with the requirements of ORS 520.005 to 520.991 until such conversion is accomplished.

Stat. Auth.: ORS 516.090 & 520.095
Stats. Implemented: ORS 520.027 & 520.095
Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0050**Filing of Reports**

(1) Report on Completion. Within 45 days after the completion of the plugging of an information hole or seismic shot hole, the owner or operator must file a report with the department setting forth in detail the method used in plugging the well or wells. The report must be in a form acceptable to the department.

(2) The drilling records:

(a) Must be in narrative form and include a map showing the location and depth of each shot hole or information hole so that it can be located; and

(b) Must indicate all work that has been performed in compliance with the permit issued for the seismic program or information hole operation.

(3) Within 60 days after plugging, the permittee must file an affidavit with the department, setting forth the location of the information hole or seismic program and the method used to protect such water-bearing formation, if any, that was penetrated during the program or operation.

Stat. Auth.: ORS 516.090 & 520.095
Stats. Implemented: 520.027, 520.095 & 520.097
Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0055

Reclamation

(1) Reclamation of surface lands affected by these operations is intended to return the surface to pre-exploration condition and/or beneficial use that is compatible with the local land use designation for the parcel(s).

(2) The operator must provide sumps of adequate capacity and design to retain all fluid material during drilling and other operations.

(3) The operator may not allow the contents of a sump to:

(a) Enter streams, artificial canals, waterways, groundwater, lakes, rivers, or other water bodies; or

(b) Adversely affect public health, safety, or welfare, or the environment, including plants, fish, and wildlife.

(4) When no longer needed, fluid in sumps must be disposed of in a manner approved by the Oregon Department of Environmental Quality and the sumps must be filled and covered.

(5) The affected surface lands must be restored to a pre-exploration status or another beneficial use that is authorized under the applicable comprehensive plan and land use regulations and acceptable to the department and surface owner. Reclamation activities may include, but are not limited to, grading, replanting, and reseeding of affected lands.

Stat. Auth.: ORS 516.090 & 520.095

Stats. Implemented: ORS 520.027 & 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; DGMI 2-2013, f. & cert. ef. 3-21-13

632-015-0060

Appeals

The applicant or permittee may request a contested case hearing by the board. The request for a contested case hearing must be filed within 30 days. The contested case hearing will be conducted in accordance with OAR 632-001-0005 and ORS Chapter 183.

Stat. Auth.: ORS 516.090 & 520.095

Stats. Implemented: ORS 520.027 & 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-2013, f. & cert. ef. 3-21-13

DIVISION 20

GEOHERMAL REGULATIONS

632-020-0005

Jurisdiction and Authority

(1) ORS Chapter 522 authorizes the Department of Geology and Mineral Industries to control the drilling, redrilling, and deepening of wells for the discovery and production of geothermal resources so that such wells will be constructed, operated, maintained, and abandoned in the manner necessary to safeguard the life, health, property, and welfare of the people of this state and to encourage the maximum economic recovery of geothermal resources therefrom.

(2) In addition to complying with ORS Chapter 522 and these rules, the permittee must comply with applicable laws and rules of the Water Resources Department and the Department of Environmental Quality.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0010

Definitions

The definitions in ORS 522.005 apply to this rule division. In addition, the following definitions apply:

(1) "Abandonment" means the failure to properly plug and decommission a prospect or geothermal well in accordance with the rules in this division.

(2) "Artesian" means the response of water or fluid under natural pressure, whereby it rises above the level where it was originally encountered.

(3) "Blowout" means an uncontrolled escape of a solid, liquid, or gas.

(4) "Contaminate" means any chemical, ion radionuclide, synthetic organic compound, microorganism, waste or other substance that does not occur naturally in groundwater or that occurs naturally but at a lower concentration.

(5) "Contamination" means introduction of a contaminant.

(6) "Fresh Water" means water that is used, or could be used without extraordinary treatment, for irrigation or domestic purposes as determined by the department.

(7) "Observation Status" means that the department has authorized a geothermal well or prospect well to remain unplugged for a specified and extended period to allow the well to be used to collect information about subsurface conditions.

(8) "Owner" means the person who has the right to drill geothermal wells or prospect wells, or to appropriate the production from a completed geothermal well.

(9) "Permittee" means owner or operator.

(10) "Person" means any individual, corporation, company, association of individuals, joint venture, partnership, receiver, trustee, guardian, executor, administrator, personal representative, applicant; or a state, federal, or local agency that is the subject of legal rights and duties under these regulations.

(11) "Pollution" means contamination or other alteration of the physical, chemical, or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt, or odor of the waters, or such radioactive or other substance into any waters of the state that either by itself or in connection with any other substance present, will or can reasonably be expected to create a public nuisance or render such waters harmful, detrimental, or injurious to public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life, or the habitat thereof.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0015

Inspection and Supervision

The department will inspect and supervise geothermal operations for the purpose of enforcing compliance with the rules and orders promulgated by the board.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0020

General Rules

General rules apply statewide and to all lands within the jurisdiction of the State of Oregon unless otherwise provided or superseded by a special rule.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; DGMI 1-2010, f. & cert. ef. 6-22-10

632-020-0025

Supremacy of Special Rules

Special rules will be adopted when required and will prevail as against general rules if in conflict therewith.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0028

Permit Required

No person may construct, drill, redrill, deepen, operate, maintain, plug, or decommission a geothermal or prospect well without first obtaining a permit from the department. No person may construct, drill, operate, or decommission a geothermal or prospect well until the person has received a permit, paid to the department the appropriate nonrefundable fee for each such well pursuant to ORS 522.055 or 522.115, and posted the appropriate bond or other financial security for each such well pursuant to 522.075 or 522.145. Construction includes construction of access roads, well pads and other site disturbances relating to the development of the site. Drilling includes redrilling, deepening, and drilling to set conductor pipe. Operation includes maintaining the well while in use or while production is suspended. Decommissioning includes plugging and restoration of the well site.

Stat. Auth.: ORS 522

Stats. Implemented: 522.305

Hist.: DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0030

Application for Geothermal or Prospect Well

A geothermal or prospect well permit is required from the department.

(1) A permit required under OAR 632-020-0028 must be obtained before commencing the construction of access roads, well pads, cellar excavations, setting the conductor pipe, drilling, redrilling, deepening or altering the casing of any geothermal or prospect well.

(2) The application for a geothermal or prospect well permit must include all of the following:

(a) A nonrefundable application fee in accordance with ORS 522.055 or 522.155;

(b) The location(s) and ground elevation(s) of the proposed well(s). The location includes the township, range, section, and the Universal Transverse Mercator (UTM) coordinates system;

(c) Ownership rights or other rights as described in 632-020-0010(8); and

(d) The proposed geologic objectives and proposed well depth for each well.

(e) Other pertinent data as the department may require in a form acceptable to the department.

(3) The department will circulate an application to drill pursuant to ORS 522.125(1) for geothermal wells or 522.065 for prospect wells. The information on the permit application is not confidential.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 1-1984, f. & ef. 1-23-84; GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0031

Annual Permit Fees

The permittee of any geothermal well or prospect well permit under which a well has been drilled and not decommissioned, must provide an annual nonrefundable fee in accordance with ORS 522.115 for geothermal wells or 522.055 for prospect wells on or before the anniversary of the issuance date of each active permit issued by the department. As a courtesy, the department may notify the permittee with a notice prior to the anniversary date.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0032

Permit Conditions

(1) After consideration of the information supplied by the applicant, the comments supplied by public agencies as provided in ORS 522.065 for prospect wells and 522.125 for geothermal wells, and other relevant information supplied to the department, the department will determine whether to issue the permit with the appropriate conditions to be placed in the permit to ensure compliance with the ORS chapter 522 and this rule division. The conditions placed on the permit may address impacts arising from the construction, operation, maintenance, and decommissioning of the well, including but not limited to the construction of access roads, well pads, and cellar excavations, setting the conductor pipe, drilling, redrilling, or deepening of the well, and altering of well casings.

(2) The department will make its decision on the permit application within the periods established in ORS 522.0065 for prospect wells and 522.135 for geothermal wells.

(3) As established in ORS 522.0065 and 522.135 the department will notify the applicant of its decision within the specified time limits after making the determination described in section (1) of this rule. If a permit is denied, the department will immediately notify the applicant in writing and provide reasons for its determination.

(4) The permit will notify an applicant that, before the applicant may undertake any activities authorized by the permit, the applicant must receive written land use approval, supported by findings, from the affected local government as required under ORS Chapter 197.180 and OAR 632-001-0015(5)(b).

Stat. Auth.: ORS 522

Stats. Implemented: 522.305

Hist.: DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0035

Drilling Financial Security

(1) A permit for a prospect well will not be issued until the applicant has complied with the requirements of ORS 522.075 relating to financial security.

(2) A permit for a geothermal well will not be issued until the applicant has complied with the requirements of ORS 522.145 relating to financial security.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0040

Assignment, Transfers of Ownership

A geothermal well or prospect well permit transfer application must include a nonrefundable fee in accordance with ORS 522.055(4) or 522.115(6) and replacement security in accordance with 522.075 and 522.145. Successor must provide all of the following:

(1) Documentation of ownership or rights of the person to whom such rights were sold, leased, assigned, transferred, conveyed, or exchanged;

(2) The date of such sale, lease, assignment, transfer, conveyance, or exchange; and

(3) The API number, company name and location of such well(s) to be transferred, in table or spreadsheet form, and a map of the well location(s).

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0060

Filing of Well Records, Confidentiality

(1) The operator of a geothermal well must keep copies of well records and related information as provided in ORS 522.355 and 522.365. In addition, the operator must:

(a) Record the amount, size, and weight of casing used; and the size, type and depths of perforations; and

(b) File with the department, within 60 days after completion, suspension, or decommissioning of a well, all logs, samples, history, surveys, and other required data.

(2) The operator of a prospect well must keep and provide the department with records including a log describing the type of rocks penetrated, depths of water-bearing formations, bottom hole temperature, and well location.

(3) Records filed with the department pursuant to ORS 522.365 and sections (1) and (2) above will not be disclosed to the public for four years from the date of completion, suspension, or abandonment of the well, whichever occurs first. After four years, the records will be available for public inspection under the provisions of 192.410 to 192.505. If an operator claims that any record continues to be exempt from disclosure as a trade secret under 192.501, the operator must notify the department and explain the basis for its claim at least 30 days before the end of the four-year period.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 1-1984, f. & ef. 1-23-84; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0065

Applications to Modify

(1) The permittee of a geothermal prospect well must submit a written application for a permit modification to change plans previously approved by the department unless otherwise directed. The application must set forth in detail the proposed work to be completed and the department must approve the application before work begins.

(2) A detailed report of the work accomplished and the methods employed, including all dates and the results of such work, must be filed within 60 days after completion of the work.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0070

Well Designations

Every person drilling any well for geothermal resources or operating, owning, or controlling or in possession of any well drilled for geothermal resources, must paint or stencil and post and keep posted in a conspicuous place near the well, the name of the person drilling, operating, owning, or controlling the well, the name of the lease, the number of the well, and the number of the permit for the well, together with the longitude and latitude, section, township, and range.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0090

Noise Abatement

The method and degree of noise abatement must comply with the pertinent rules adopted by the Oregon Department of Environmental Quality.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0095

Casing Requirements

(1) The permittee of any geothermal well or prospect well must properly case the well with adequate grade casing and cement the casing where necessary to provide adequate anchor for blowout preventers. Casing design must take into account stress imposed by the maximum expected temperature and the physical effects of produced fluids and gases on casing durability. Surface casing for any well with a proposed depth of more than 500 feet must be set at a depth of at least ten percent of the proposed total depth of the well, or at least 25 feet into consolidated, competent rock, whichever is deeper, unless otherwise approved by the department. In areas with no nearby drilling history, surface casing must be set to a minimum of 300 feet into consolidated, competent rock or confining clay layer, unless otherwise approved by the department.

(2) The permittee of a geothermal or prospect well must prevent commingling of fluids. The permittee of a geothermal or prospect well that penetrates a fresh water aquifer must set casing or tubing through this formation and cement such casing or tubing from bottom to top unless the department approves a different program.

(3) Casing and casing seals used for prospect wells, where the temperature of groundwater does not exceed 250°F, must comply with the general standards for the construction and maintenance of water wells set by the State Water Resources Department.

(4) Each fluid-bearing zone above the producing horizon in a geothermal resources well must be cased and sealed off to prevent the migration of formation fluids to other areas. Such casing and sealing off must be completed and tested using the methods and means prescribed by the department.

(5) Cements used in cementing casing and sealing formations must be of a grade and type best suited for expected reservoir temperature, formation water chemistry and bonding properties. Cements acceptable for use in high-temperature holes include Modified Type A or G, Alumina Silica Flour, Phosphate Bonded Glass, or other equivalent high-temperature design cement.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0100

Removal of Casings

No person may remove a casing, or any part of a casing, from any geothermal well or prospect well without applying in advance and obtaining approval in writing from the department.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0105

Directional Drilling

(1) The maximum point at which a well penetrates the producing formation must not vary from the vertical drawn from the center of the hole at the surface by more than 5 degrees. Deviation is permitted without special permission for short distances to straighten the hole, sidetrack junk, or to correct other mechanical difficulties.

(2) Except for the purposes of straightening the hole, sidetracking junk, or correcting mechanical difficulties as provided in this rule, an operator may not drill a well that deviates from vertical unless the operator first files an application and obtains a permit from the department. If drilling is in progress, the operator must notify the department immediately of the deviation of the hole and file a written request with the department for approval, as required. If the department does not approve,

the permittee must set a cement plug at the point of deviation from vertical and complete the well as originally approved or plug the well.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0110

Serving Orders

When the department gives any written direction concerning the drilling, testing, or other operations conducted with respect to any geothermal well or prospect well drilled, in the process of being drilled, redrilled, deepened, altered, or in the process of being decommissioned, and the operator, owner, or designated agent of either, serves written notice, either personally or by mail, addressed to the department, requesting that a definite order be made upon such subject, the department will, within a reasonable time after receipt of the notice, deliver a final written order on the subject matter. Any such final written order of the department may be appealed to the board and further redress may be sought in the manner provided in ORS Chapter 183 for appeals from final orders in contested cases.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0115

Measurement of Geothermal Resources

The operator must measure or gauge all production from each well in accordance with methods approved by the department or may arrange with the department for other acceptable methods of measuring and recording production. The quantity and quality of all production must be determined in accordance with the standard practices, procedures, and specifications generally used in the industry. For wells on federal land, the department will establish acceptable methods in concert with the responsible federal agency.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0117

Spacing Plan

The board may, on its own motion, or at the request of any interested party, hold a hearing to determine the maximum efficient rate at which any geothermal well in the state can produce a geothermal resource without waste. After the hearing, the board may set production rates by order.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0120

Production Reports

The owner or operator of any well producing geothermal resources must file with the department, before the 20th day of each month, a statement of the geothermal resources production from the well during the preceding calendar month. The report must be in a form acceptable to the department.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10

632-020-0125

Proper Completion, Plugging, and Decommissioning

(1) A well is properly completed when the well and casing has been installed in accordance with the well drilling permit and master valves and well control equipment have been installed, and well is secured.

(2) Proper completion and decommissioning requires adequate protection of the environment and of aesthetic qualities of the surface in the area of operation.

(3) A geothermal well or prospect well is considered properly plugged and decommissioned, for the purpose of this chapter, when the conditions of ORS 522.005 to 522.990 and these rules are fulfilled and the person has shown to the satisfaction of the department that all proper steps have been taken to protect groundwater and surface water from

contamination resulting from the drilling or drilling related activities and to prevent the comingling of fluids between zones or to surface.

(4) A well or hole must be plugged and all related disturbance must be reclaimed in accordance with these rules as soon as practical. A hole may not be left unplugged for longer than 30 days from the completion of operations without prior written approval from the department.

(5) The drilling or operation of a well can be suspended only as provided in ORS 522.215.

(6) Plugging Methods and Procedure, Geothermal Wells or Prospect Wells.

(a) The well must be filled with mud-laden fluid from bottom to top consisting of mud weighing 15.0 pounds per gallon of not less than a viscosity of 36 (API Full Funnel Method), with the exception of intervals required to be plugged with cement. Other fluids may be used upon approval of the department.

(b) At the top of each producing formation, or fluid zone at greater than hydrostatic pressure, a cement plug must be placed which extends either from the bottom of the well or from a point at least 50 feet below the top of each such producing formation or fluid zone to a point at least 50 feet above each producing formation or fluid zone.

(c) If a well is uncased through a freshwater zone, a cement plug must extend from at least 50 feet below the bottom of the water-bearing zone to at least 50 feet above the water zone.

(d) If the surface string of casing is set below the deepest freshwater-bearing formation, and the well is uncased below this point, a cement plug must be placed in the well extending from a point at least 50 feet below the base of the surface casing and at least 50 feet into the bottom of the casing.

(e) In wells where artesian water is encountered, the well must be plugged with cement from bottom to top, unless otherwise approved by the department.

(f) The top of all casing strings must be cut off at least 4 feet below ground surface in such a manner as not to interfere with soil cultivation and casing and all annuli must be plugged with cement to a depth of at least ten feet.

(g) Cement grout used as a sealing material must be placed or forced upward from the bottom of the hole in one continuous operation without significant interruption. If temporary outer surface casing is used in the construction of the hole, it must be withdrawn as the grout is placed.

(7) The operator must provide sumps of adequate capacity and design to retain all fluid material during drilling and other operations.

(8) The affected surface lands must be restored to a pre-exploration and/or beneficial use acceptable to the department, after consultation with the surface owner. Reclamation activities may include, but are not limited to replanting or reseeding of affected land for return to secondary beneficial use that is compatible with the land-use designation.

(9) Affidavit on completion: Within 45 days after a Geothermal Well or Prospect well is plugged, the operator must file a written statement with the department certifying that the well was properly plugged and decommissioned.

(10) Wells Used for Fresh Water:

(a) When the well to be decommissioned may safely be used as a freshwater well and this use is desired by the land owner, the well need not be filled above the required sealing plug set below fresh water, provided authorization for use of any such well is first obtained from the Water Resources Department;

(b) Application for leaving the well partially unplugged as a freshwater well must be made to the department by the land owner, accompanied by his affidavit as to his need of water and the intended use of the well, together with a copy of the Water Resources Department's order or permit authorizing such use; and

(c) The operator must leave the fresh water well in a condition approved by the department.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.175, 522.305 & 522.245

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0130

Subsequent Decommissioning Report

The operation of a well can be suspended only as provided in ORS 522.225.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.175 & 522.305, & 522.245

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0134

Naming of Fields

The board, on its own or upon request of any interested person, may, after a public hearing, name a geothermal field and set the boundaries of the field. Using the same procedure, the board may later change the boundaries of a field.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95

632-020-0135

Well Spacing

The board will approve proposed well-spacing programs for geothermal wells in a field or prescribe such modifications to the programs as it determines necessary for proper development. The board may do this by rule or order. In determining well spacing, the board will consider such factors as:

- (1) Topographic characteristics of the area;
- (2) Hydrologic and geologic conditions in the reservoir;
- (3) Minimum number of wells required for adequate development;

and

- (4) Protection of the environment.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0138

Unit Agreements

(1) When voluntary unitization occurs under ORS 522.405 to 522.545, the unit operator must pay a fee to the department for the administration of the unit. The amount of the fee will be determined by the board on a case-by-case basis. The unit operator must collect equitable shares of this fee from all persons, or state or local governing bodies, special districts, or agencies with a royalty interest in the unitized development.

(2) When the board requires the development of a unit agreement under ORS 522.405 to 522.545, the unit operator must pay a fee to the department for the creation and administration of the unit. The amount of the fee will be determined by the board on a case-by-case basis, for creation and administration of the unit. The unit operator must collect equitable shares of this fee from all persons, or state or local governing bodies, special districts, or agencies with a royalty interest in the unitized development.

(3) The department will review voluntary unit agreements governing production of geothermal resources to ensure compliance with the provisions of ORS 522.405 to 522.545.

(4) The operator or person proposing a board-initiated unit agreement must make application to the board.

(5) The department shall enforce, when necessary, board-approved or initiated unit agreements.

(6) The board may change or approve proposed changes in the boundaries of a unit area upon application by the unit operator or interested person. Such changes shall not jeopardize pre-existing contractual relationships between participating parties.

(7) The board may levy fees upon any operator, person, state or local governing body, special district, or agency that holds a royalty interest in a unit area to cover reasonable costs associated with the development and administration of a unit agreement. If such a fee is not paid when due, the board may require the fee to be paid from proceeds of the sale of the unit production.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305 & 522.405

Hist.: GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0140

Commingling Production

(1) As part of a unit agreement, the department will require the operator to commingle the production from different wells or leases or both with the production of other operators subject to such conditions as may be prescribed.

(2) The operator must not commingle the production from different geothermal aquifers without prior approval from the department.

Stat. Auth.: ORS 522
 Stats. Implemented: ORS 522.305
 Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0145

Pits or Sumps

(1) Materials and fluids necessary for the drilling, production, or other operations may be discharged or placed in pits and sumps only with the approval of the department and the Department of Environmental Quality. The operator must not allow the contents of the pit to:

- (a) Contaminate streams, artificial canals or waterways, ground-water, lakes, or rivers;
- (b) Adversely affect the environment, persons, plants, fish, and wildlife and their populations; or
- (c) Damage the aesthetic values of the property or adjacent properties.

(2) When no longer needed, pits and sumps are to be filled and covered and the premises restored to a near natural state.

Stat. Auth.: ORS 522
 Stats. Implemented: ORS 522.305
 Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0150

Disposal of Solid and Liquid Wastes

Injection of geothermal fluids must not pollute waters of the state, create a public nuisance, impair beneficial uses of waters, or degrade the biologic habitat of aquatic life and domestic and wild animals. Permits for prospect and geothermal wells will be issued in accordance with ORS 522.019, 522.025, and 522.135. The department will coordinate with the Department of Environmental Quality and the Department of Water Resources to ensure that permit conditions are consistent and protective of natural resources and the environment.

Stat. Auth.: ORS 522
 Stats. Implemented: ORS 522.305
 Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0151

Handling of Test Fluids

Prior to conducting formation and production tests, the operator must provide adequate storage for anticipated volumes of formation fluids and drilling mud. Arrangements for ultimate disposal of waste fluids must be made with the department and the Department of Environmental Quality.

Stat. Auth.: ORS 522
 Stats. Implemented: ORS 522.305
 Hist.: GMI 4-1980, f. & ef. 10-2-80; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2010, f. & cert. ef. 6-22-10

632-020-0154

Injection and Conservation

Injection is the required method for handling geothermal fluids derived from geothermal resources to conserve natural heat energy and to maintain reservoir temperature and pressure. This rule applies to fluids derived from geothermal wells as defined in ORS 522.005(12) that are subject to departmental regulation under ORS 522.025, unless otherwise approved by the department.

Stat. Auth.: ORS 522
 Stats. Implemented: ORS 522.305
 Hist.: GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0155

Application to Inject

(1) The provisions of this rule apply to applications for geothermal wells intended for the injection of geothermal fluids, and are in addition to the requirements of ORS 522.019.

(2) An application for a permit to inject geothermal fluid into any underground reservoir must include, but is not limited to, the following:

- (a) A plan of injection explaining the proposed system including facilities other than the injection well necessary to conduct the operations;
- (b) A map of adequate scale (preferably 1:24,000, but not less than 1:62,500 or 1" = 1 mile) to show all existing and proposed wells, pipelines, and other surface facilities. All wells must be distinguished by type;

(c) The injection fluid characteristics such as quality, quantity, source, chemical analysis, chemical reactivity, toxicity, temperature, and any additives such as but not limited to pH control, anti-scaling, or biocides;

(d) The characteristics of the proposed injection zone including: volume capacity of the zone, geologic formation and structure, porosity, permeability, chemical analysis of zonal water, static formation pressures and temperatures, anticipated zonal fluid reactivity to the injected fluids, any previous history of injection operations into the same or similar formations, any injectivity tests which may have been conducted, and other pertinent data;

(e) Description of the hydrology of the surrounding area, including groundwater quality, quantities, and analyses, and the predicted effects of the injected fluids on the existing surface and groundwater;

(f) Subsurface maps and cross sections of the producing and injecting zone structure and lithology and any available logs or histories of a well or other wells penetrating the injection zone that have not been previously submitted.

(g) Description of the effects of injection on such factors as potable water, seismicity, and local tectonic conditions;

(h) Representative injection well drilling program;

(i) Proposed downhole and surface injection equipment and metering facilities with capacity, design capabilities, and design safety factors in sufficient detail to enable adequate environmental analysis. Construction and engineering design plans should be included; and

(j) Proposed injectivity surveys, seismic surveys, seismic monitoring, and other means to monitor injection.

Stat. Auth.: ORS 522
 Stats. Implemented: ORS 522.019 & 522.305
 Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0156

Permit for Injection

(1) The department will issue a permit for injection of geothermal fluids after finding that the injection plan is consistent with the purposes set forth in ORS 468A.010, 468B.015, 468B.030, 537.525, 522 and these rules.

(2) Appropriate approval must be obtained from the Department of Environmental Quality before re-injection is commenced. Issuance of a geothermal well permit allowing for reinjection does not relieve any person from any obligation to register or to obtain a permit under ORS 468B.050 or 468B.195 to 468B.197 (Department of Environmental Quality).

(3) The department will not issue a permit for injection of geothermal fluids until the operator has financial security in compliance with OAR 632-020-0035.

Stat. Auth.: ORS 522
 Stats. Implemented: ORS 522.305
 Hist.: GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0157

Injection Well Construction, Protection and Mechanical Integrity

(1) Injection wells must be constructed in compliance with the standards set in OAR 632-020-0095 and 632-020-0125.

(2) Special standards may be required by the department to allow for corrosive effects of injected fluids, precipitation of dissolved minerals, more extensive cementing of casings, specifications for tubing packers and casing packers, or other construction practices generally accepted by the industry.

(3) All wells for injection must be tested for mechanical integrity at least once every five years to determine that there is no leak in the casing and that there is no fluid movement into an underground source of water other than that from which the fluid was produced, unless otherwise approved by the department.

(4) Acceptable tests include pressure build-up profiles, pressure testing, and casing thickness logs to demonstrate integrity of the casing.

(5) The department may, on a case-by-case basis, approve tracer surveys, noise logs, temperature logs, spinner surveys, or other methods to detect water movement adjacent to the wellbore and seismic monitoring.

(6) The department must be notified two weeks before any mechanical integrity test. The results must be submitted within 60 days.

Stat. Auth.: ORS 522
 Stats. Implemented: ORS 522.305

Hist.: GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0158

Wellhead Equipment, Injection Wells

Adequate wellhead equipment must be installed to control expected pressures. Where underground conditions are unknown, the same equipment must be used as required for exploration holes.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10

632-020-0159

Monitoring Injection

(1) The department requires monitoring of injection operations to ensure that there is no escape of geothermal fluids from the casings or through the annular space between casings and open hole except in the zone for which injection is permitted.

(2) Monitoring required by the department may include gauging pressure between casings, periodic testing for casing leaks, surveys to detect movement of fluid in adjacent rock formations, cement bond logs, temperature measurements, analyses of water chemistry, special wellhead equipment or other methods employed by industry to monitor re-injection operations.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0165

Judicial Review of Board Actions

Any person adversely affected by any rule or order by the board may obtain judicial review thereof pursuant to ORS Chapter 183.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95

632-020-0170

Environmental Protection

In conducting operations under this chapter, the permittee or operator must not pollute or otherwise damage land, water or air resources. The operator must comply with all federal and state air and water quality standards and requirements. Plans for the disposal of well effluents must be approved by the Oregon Department of Environmental Quality and department before any disposal actions are taken.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

Geothermal Blowout Prevention

632-020-0175

Blowout Prevention for Geothermal Wells and Prospect Wells 2,000 Feet or More in Depth

(1) Cementing of Casing. All casing strings must be cemented with a quantity of cement sufficient to fill the annular space back to the surface.

(a) The intermediate casing string must be cemented to fill the annular space back to the surface unless otherwise approved by the department.

(b) Casing must be:

(A) Cemented with a high temperature resistant cement, unless waived by the department and must be cemented in a manner necessary to exclude, isolate, or segregate overlying formation fluids from the geothermal resources zone and to prevent the movement of fluids into possible fresh water zones; and

(B) Cemented back to the surface or to the top of the inner casing. A temperature or cement bond log may be required by the department after setting and cementing the production casing and after all primary cementing operations if an unsatisfactory cementing job is indicated.

(c) Proposed well cementing techniques differing from the requirements of this paragraph will be considered by the department on an individual well basis.

(2) Pressure Testing.

(a) All blowout preventers and related equipment that may be exposed to well pressure must be tested first to a low pressure and then to a high pressure:

(A) A pressure decline of 10 percent or less in 30 minutes is for the low pressure test considered satisfactory prior to initiating the high-pressure test;

(B) When performing the low-pressure test, it is not acceptable to apply a higher pressure and bleed down to the low test pressure;

(C) The high-pressure test must be to the rated working pressure of the ram type blowout prevention equipment and related equipment, or to the rated working pressure of the wellhead on which the stack is installed, whichever is lower. A pressure decline of 10 percent or less in 30 minutes is considered satisfactory;

(D) Annular blowout prevention equipment must be high-pressure tested to 50 percent of the rated working pressure;

(E) Manual adjustable chokes not designed for complete shut off (CSO) must be pressure tested only to the extent of determining the integrity of the internal seating components to maintain back pressure; and

(F) Hydraulic chokes designed for CSO must be pressure tested to 50 percent of the rated working pressure.

(b) All casing below the conductor pipe must be pressure tested to 0.22 psi per foot or 1,500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield strength of the casing. Higher pressures, using a test plug in the casing head, may be required by the department on a case-by-case basis.

(c) During blowout prevention equipment pressure testing, the casing must be isolated with a test plug set in the wellhead and the appropriate valve opened below the test plug to detect any leakage that may occur due to failure of the test plug.

(d) The choke and kill line valves, choke manifold valves, upper and lower kelly cocks, drill pipe safety valves, and inside blowout prevention equipment must be tested with pressure applied from the wellbore side. All valves, including check valves, located downstream of the valve being pressure tested, will be in the open position.

(e) Manually operated valves and chokes on the blowout prevention equipment, choke and kill lines, or choke manifold must be equipped with a handle provided by the manufacturer, or a functionally equivalent fabricated handle, and be lubricated and maintained to permit operation of the valves without the use of additional wrenches or levers.

(f) All operational components of the blowout prevention equipment must be function tested at least once a week to verify the components' intended operations.

(g) The blowout prevention equipment must be pressure tested: when installed, prior to drilling out casing shoes, and following repairs or reassembly of the preventers that require disconnecting a pressure seal in the assembly.

(h) During drilling operations, blowout prevention equipment must be actuated to test proper functioning once each trip or once each week, whichever is more frequent.

(i) All flange bolts must be inspected at least weekly and retightened as necessary during drilling operations. The auxiliary control systems must be maintained in working order and inspected daily to check the mechanical condition and effectiveness and to insure personnel acquaintance with their operation. A blowout prevention practice drill must be conducted weekly for each drilling crew and be recorded on the driller's log.

(j) The results of all blowout prevention equipment pressure tests and function tests must be recorded on the tour sheet and include the type of test, testing sequence, low and high pressures, duration of each test, and results of each test.

(k) All tool pushers, drilling superintendents, and permittees' representatives (when the permittee is in control of the drilling) are required to have completed an API, IADC, or similar governing body sanction well control certification program and furnish the certification of satisfactory of completion to the department prior to the start of any drilling operations. The certification must be renewed every two years.

(l) The department may require that any blowout prevention equipment test results submitted to the department have a signed affidavit stating that the testing procedures of the blowout prevention equipment and the passing results are accurate and complies with OAR 632-010-0014.

(m) The department may require that all blowout prevention equipment tests be conducted and witnessed by an independent third party that will report all test results to the department for review and approval prior to commencement of drilling operations.

(n) In the event of casing failure during the test, the casing must be repaired or recemented until a satisfactory test is obtained. A pressure decline of 10 percent or less in 30 minutes is considered satisfactory. The

department may require an affidavit signed by the operator or contractor conducting the pressure test certifying that a satisfactory pressure test has been obtained.

(o) Casing test results must be recorded in the driller's log and reported to the department within 60 days after completion. The casing and lap test reports must give a detailed description of the test including mud and cement volumes, lapse of time between running and cementing casing and testing, method of testing, and test results.

(3) Blowout Prevention Equipment and Procedures. The operator must use all necessary precautions to keep all wells under control and use trained and competent personnel and properly maintained equipment and materials at all times. Blowout preventers and related well control equipment must be installed, tested immediately after installation using water, and maintained ready for use until drilling operations are completed. Certain components, such as packing elements and ram rubbers, must be of high-temperature resistant material as necessary. All kill lines, blowdown lines, manifolds, and fittings must be steel and have a temperature derated minimum working pressure rating equivalent to the maximum anticipated wellhead surface pressure. Subject to subsections (a) and (b) of this section, blowout prevention equipment must have hydraulic actuating systems and accumulators of sufficient capacity to close all of the hydraulically operated equipment and have a minimum pressure of 1,000 psi remaining on the accumulator. The department may approve manually operated blowout preventers. Dual control stations must be installed with a high-pressure backup system. One control panel must be located on the ground at least 50 feet away from the wellhead or rotary table. Air or other gaseous fluid drilling systems must have blowout prevention assemblies. Such assemblies may include, but are not limited to, a rotating head, a double ram blowout preventer or equivalent, a banjo-box or an approved substitute thereof and a blind ram blowout preventer or gate valve, below the banjo-box. Exceptions to the requirements of this paragraph will be considered by the department on a case-by-case basis. Approved exceptions may include certain geologic and well conditions, such as stable surface areas with known low subsurface formation pressures and temperatures.

(a) Conductor Casing. In certain instances, a remotely controlled hydraulically operated expansion type preventer or an acceptable alternative, approved by the department, including a drilling spool with side outlets or equivalent may be required by the department in areas where shallow thermal zones are indicated.

(b) Surface, Intermediate, and Production Casing. Before drilling below any of these strings, the blowout prevention equipment must include a minimum of the following, unless otherwise approved by the department:

(A) The blowout prevention equipment schematic diagram must indicate the minimum size and pressure rating of all components of the wellhead and blowout preventer assembly;

(B) Install all blowout preventers, choke lines, and choke manifolds above ground level. Casing heads and optional spools may be installed below ground level, provided they are visible and accessible;

(C) Blowout preventer equipment and related casing heads and spools must have a vertical bore no smaller than the inside diameter of the casing to which they are attached;

(D) All ram blowout prevention equipment must be equipped with hydraulic locking devices and manual locking devices with hand wheels extending outside of the rig's substructure;

(E) Blowout prevention equipment installed on the well must have a rated working pressure equal to or higher than, the working pressure;

(F) Wells drilled while using tapered drill strings must be equipped with either a variable bore pipe ram preventer or additional ram type blowout preventers to provide a minimum of one set of pipe rams for each size of drill pipe in use, and one set of blind rams;

(G) Blowout prevention equipment must consist of at least one expansion-type preventer and a rotating head. Additional blowout prevention equipment may be required by the department based on site-specific well safety needs. Ram blowout prevention equipment or a drilling spool must have side outlets with a minimum inside diameter of two inches on the kill side, and three inches on the choke side to accommodate choke and kill lines. Outlets on the casing head may not be used to attach the choke or kill lines;

(H) Additional blowout prevention equipment must include, but is not limited to, one upper kelly cock, and one drill pipe safety valve with subs to fit all drill string connections in use;

(I) Choke manifold and related equipment must consist of one kill line valve, one check valve, two choke line valves, choke line, two man-

ual adjustable chokes each with one valve located upstream of the choke, one bleed line valve and one mud service pressure gauge with a valve upstream of the gauge;

(J) All choke manifold valves, choke and kill line valves and the choke line must be full bore. Choke line valves, choke line and bleed line valves must have an inside diameter equal to or greater than the minimum requirement for the blowout prevention equipment or drilling spool outlet;

(K) The choke line should be as straight as possible, and any required turns must be made with flow targets at all bends and on block tees. All connections exposed to well bore pressure must be welded, flanged or clamped. Choke hoses with flanged connections designed for that purpose will be accepted in lieu of a steel choke line. The choke line must be securely anchored;

(L) The accumulator must have sufficient capacity to operate the blowout prevention equipment, as outlined in this section, and have two independently powered pump systems connected to start automatically after a 200 psi drop in accumulator pressure, or one independently powered pump system connected to start automatically after a 200 psi drop in accumulator pressure and an emergency nitrogen back-up system connected to the accumulator manifold. Blowout prevention equipment controls may be located at the accumulator or on the rig floor; and

(M) The drilling fluids containment system must have a functional mud pit horn.

(c) Testing and Maintenance.

(A) Ram type blowout preventers and auxiliary equipment must be tested to a minimum of 1,000 psi, 1.5 psi per foot of casing, or to the working pressure of the casing or assembly, whichever is the lesser. Expansion type blowout preventers must be tested to 70 percent of the above pressure testing requirements. The blowout prevention equipment must be pressure tested:

(i) When installed;

(ii) Prior to drilling out plugs or casing shoes or both; and

(iii) Following repairs that require disconnecting a pressure seal in the assembly.

(B) During drilling operations, blowout prevention equipment must be actuated to test proper functioning as follows: once each trip for blind and pipe rams but not less than once each day for pipe rams; and at least once each week on the drill pipe for expansion type preventers.

(C) All flange bolts must be inspected at least weekly and retightened as necessary during drilling operations. The auxiliary control systems must be inspected daily to check the mechanical condition and effectiveness and to ensure personnel's acquaintance with the method of operation. Blowout prevention and auxiliary control equipment must be cleaned, inspected, and repaired, if necessary, prior to installation to ensure proper functioning. Blowout prevention controls must be plainly labeled, and all crewmembers must be instructed on the function and operation of the equipment. A blowout prevention drill must be conducted weekly for each drilling crew. All blowout prevention tests and crew drills must be recorded on the driller's log.

(4) Related Well Control Equipment. A full opening drill string safety valve in the open position must be maintained on the rig floor at all times while drilling operations are being conducted. A kelly cock must be installed between the kelly and the swivel.

(5) Drilling Fluid. The properties, use, and testing of drilling fluids and the conduct of related drilling procedures must be sufficient to prevent the blowout of any well. Sufficient drilling fluid materials to ensure well control must be maintained on site and readily accessible for use at all times.

(6) Drilling Fluid Control. Before pulling drill pipe, the drilling fluid must be properly conditioned or displaced. The hole must be kept reasonably full at all times; however, in no event will the annular mud level be deeper than 100 feet from the rotary table when coming out of the hole with drill pipe. Mud cooling techniques must be utilized when necessary to maintain mud characteristics for proper well control and hole conditioning. The department may require the use of mud cooling equipment.

(7) Drilling Fluid Testing:

(a) Mud testing and treatment consistent with good operating practice must be performed daily or more frequently as conditions warrant. Mud testing equipment must be maintained on the drilling rig at all times; and

(b) The following mud drilling fluid system monitoring or recording devices must be installed and operated continuously during drilling operations occurring below the shoe of the conductor casing. No excep-

tions to these requirements will be allowed without the specific prior approval of the department:

(A) High-low level mud pit indicator including a visual and audio-warning device;

(B) Degassers, desilters, and desanders;

(C) A mechanical, electrical, or manual surface drilling fluid temperature monitoring device. The temperature of the drilling fluid going into and coming out of the hole must be monitored, read, and recorded on the driller's or mud log for a minimum of every 30 feet of hole drilled below the conductor casing; and

(D) A hydrogen sulfide indicator and alarm must be installed in areas suspected or known to contain hydrogen sulfide gas that may reach levels considered dangerous to the health and safety of personnel in the area.

(8) Well-head Equipment and Testing:

(a) Completions. All wellhead connections must be fluid pressure tested to the API or ASA working pressure rating. Cold water is required as the testing fluid, unless otherwise approved by the department at the time of permitting. Welding of wellhead connections must be performed by a certified welder using materials in conformance with ASTM specifications; and

(b) Well-head Equipment. All completed wells must be equipped with a minimum of one casinghead with side outlets, one master valve, and one production valve, unless otherwise approved by the department. All casingheads, Christmas trees, fittings, and connections must have a temperature derated working pressure equal to or greater than the surface shut-in pressure of the well at reservoir temperature. Packing, sealing mediums and lubricants must consist of materials or substances that function effectively at, and are resistant to, high temperatures. Wellhead equipment, valves, flanges, and fittings must meet minimum ASA standards or minimum API Standard 6A specifications. Casinghead connections must be made such that fluid can be pumped between casing strings.

(9) Supervision. From the time drilling operations are initiated and until the well is completed or decommissioned, a member of the drilling crew or the toolpusher must monitor the rig floor at all times for surveillance purposes, unless the well is secured with blowout preventers or cement plugs.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.155 & 522.305

Hist.: GMI 8, f. & ef. 11-17-76; GMI 4-1980, f. & ef. 10-2-80; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 2-1999, f. & cert. ef. 8-30-99; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

632-020-0180

Blowout Prevention Rules for Prospect Wells Less than 2,000 Feet in Depth

All prospect wells must have adequate casing and wellhead controls installed, unless otherwise approved by the department. The casing must extend from the surface to at least ten percent of the proposed total depth of the well and be cemented back to the surface. Wellhead controls must consist of an annular preventer or double ram preventer or pipe rams and gate valve. Controls may be manual or hydraulic.

(1) If hot water or flowing steam at 65° C. (150° F.) or greater is encountered, further drilling must stop immediately, the operator must notify the department, and the hole will be either:

(a) Completed as an observation hole using steel tubing cemented from total depth to surface; or

(b) Permanently decommissioned by plugging with cement from total depth to surface; or

(c) Deepened only after a review of the adequacy of wellhead control equipment and approval from the department. If the prospect well is deepened as described in this section, it must be completed as described in subsections (a) and (b) of this section.

(2) If cold flowing artesian water is encountered, the hole will be completed as in subsection (1)(a) or (b) of this rule, except that plastic tubing may be used, only with prior department approval.

(3) Locations proposed in natural thermal areas within a 1,000 foot radius of hot springs, fumaroles, or other surface geothermal indicators, or in areas of known artesian water flow, will require a detailed drilling program for each hole approved by the department. The department may require special drilling and completion techniques, such as cemented surface casing and simple expansion type blowout preventers, to safely control formations containing geothermal or other resources that may be penetrated.

(4) A supply of mud and lost circulation material must be kept on hand while drilling to control abnormal pressure if rotary equipment is used.

(5) Prospect wells must not result in the co-mingling of fluids.

(6) No prospect well may be constructed, maintained, or abandoned in such a manner as to constitute a health threat, health hazard, or nuisance to public safety.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.155 & 522.305

Hist.: GMI 8, f. & ef. 11-17-76; GMI 4-1980, f. & ef. 10-2-80; GMI 1-1983, f. & ef. 9-30-83; GMI 2-1995, f. & cert. ef. 3-10-95; DGMI 1-2010, f. & cert. ef. 6-22-10; DGMI 3-2013, f. & cert. ef. 3-21-13

DIVISION 30

OREGON MINED LAND RECLAMATION ACT

Applicable to All Surface Mining Except As Specifically Provided Under OAR Chapter 632, Division 035 (Coal and Metal-Bearing Ore Operations), and OAR Chapter 632, Division 037 (Chemical Process Mining)

632-030-0005

Purpose and Application of These Rules

(1) These rules implement the purposes of the Mined Land Reclamation Act as established in ORS 517.760.

(2) These rules prescribe procedures for obtaining an operating permit and for complying with the other requirements of the Oregon Mined Land Reclamation Act. These rules apply to all operating permits, including those for non-aggregate mineral mines and chemical process mines, except where the provisions of OAR chapter 632, division 35 or 37 control. These rules do not address exploration activities. The requirements for exploration permits are addressed in OAR chapter 632, division 33.

(3) Applicants seeking operating permits from the Department should be aware that other state, federal, and local agencies may require the applicant to obtain approval prior to operation. For example, the Department of Environmental Quality may require permits for air quality and water quality. Where reasonable, the Department will coordinate with other agencies to avoid duplication on the part of applicants. An operating permit from the Department does not constitute authorization to proceed without approval of other agencies, if required. It is the applicant's responsibility to obtain other necessary permits.

Stat. Auth.: ORS 516.090(2)(a), 517.740 & 517.840(1)(d)

Stats. Implemented: ORS 517.760

Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 2-1997, f. & cert. ef. 10-14-97; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0010

Definitions

In addition to the definitions provided in ORS 517.750, the following definitions apply to OAR 632-030-0005 through 632-030-0070:

(1) "Affected," as used in ORS 517.750(15)(a), means the disturbance by excavation or any other surface mining of any land surface during any stage of mineral production, or the covering of any land surface by surface mining refuse either by intentional placement, slope failure, or deposition of eroded materials.

(2) "Aggregate" means crushed or uncrushed gravel, stone, rock, or sand of a quality typically used in concrete or road construction.

(3) "A Period of 12 Consecutive Calendar Months," as used in ORS 517.750(15) and these rules, begins on the date surface mining begins.

(4) "Complete Application" means an application that is determined to be complete by the Department that includes the appropriate fee, forms, and site characterization, operational and mine closure details, and other documentation required under this rule division.

(5) "Compliance Order" means an order requiring compliance with an operating permit, reclamation plan, the Mined Land Reclamation Act, or the rules adopted thereunder as provided in ORS 517.860 and OAR 632-030-0070.

(6) "Intensification" means a change of permitted mining activity over that approved by the local government that may warrant a reconsideration of the local government land-use decision, such as a significant increase in volume of production inside a mine permit boundary or the act of increasing the permit boundary. Intensification would not include an increase in the bonded area to be mined, within a larger area covered in the original operating permit.

(7) "Limited Exemption Area" means land that is exempt from reclamation requirements under ORS 517.770 and OAR 632-030-0017.

(8) "Mined Land Reclamation Act" or "Act" means the statutes codified at ORS 517.702 to 517.992.

(9) "Permit Area" means the area covered by an operating permit issued by the Department and defined by boundaries submitted on a map acceptable to the Department under OAR 632-030-0015. The permit area is generally a contiguous parcel and may include multiple excavation and/or processing areas. The permit area may include, but is not limited to, haul roads, buffers, setbacks, reclaimed areas, and areas used for the storage or disposition of any mine product or mine waste material from the surface mining operation, even though separate from the area of extraction. The permit area may be redefined by a permit amendment.

(10) "Reclamation in a timely manner" means a schedule of reclamation based on mine progression and may require partial or concurrent reclamation where possible, considering the mine plan and available mineral resources or both. The Department may specify a timeframe within which reclamation must occur to protect adjacent natural resources.

(11) "Substantial Modification" includes an intensification of, or a significant change in, mine operation or reclamation. For example, substantial modification includes mine dewatering if not previously permitted as part of the original mine plan or reclamation plan approval or mine operation activities that render the approved reclamation plan unattainable or infeasible to implement or accomplish.

(12) "Suspension Order" means a written Department order to suspend mining operations issued under ORS 517.880 and OAR 632-030-0040.

Stat. Auth.: ORS 183.341, 197.180 & 517.740

Stats. Implemented: ORS 517.750

Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 7, f. 11-7-74, ef. 12-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 1-1992, f. & cert. ef. 6-17-92; GMI 2-1997, f. & cert. ef. 10-14-97; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2001, f. & cert. ef. 8-6-01; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0015

Information Requirements; Surveys; Marking

(1) Information Requirements. The Department may require any information needed to ascertain whether surface mining has occurred or is occurring and the status of any proposed or existing permit. Any production records, mineral assessments, and trade secrets submitted by a mine operator or landowner to the Department will be kept confidential as provided in ORS 517.901.

(2) Surveys and Marking.

(a) Applicants for new operating permits or amendments must survey the permit area, all excavation areas, setbacks, and buffers, and provide a map that shows all areas of excavation, setbacks, buffers, buildings, haul roads, stockpiles, wells, ponds, and floodways. Surveys must be conducted by a professional land surveyor as required by ORS 672.

(b) After issuance of the permit and prior to mining, the operator must mark the boundaries for all excavation areas, stockpiles, setbacks, and buffers. Unless otherwise authorized by the Department in writing, the marking must be accomplished by placing clearly visible markers, approved by the Department, at a distance of no more than 200 feet on center. The Department may grant extensions for marking areas that are subject to a phased operation plan. The Department may waive marking requirements or allow greater distances where topography or other conditions make marking unreasonable. Any extension or waiver must be approved by the Department in writing.

(c) Operators of previously permitted operations with a total disturbed area in excess of 20 acres must survey the permit area and provide a map that complies with the requirements in subsection (2)(a) of this rule. The survey must be completed and submitted to the Department for review upon adoption of these rules and within 12 months after the permit anniversary date. Upon receipt of a written request from an operator, the Department may grant extensions to this requirement for good cause shown. Extensions must be authorized by the Department in writing. Within three months after the Department notifies the operator that the survey is adequate, the operator must mark boundaries in the permit area as provided in subsection (2)(b) of this rule.

(d) The Department may require any operator of a previously permitted operation that is not subject to subsection (2)(c) of this rule to provide a survey or marking or both if the Department determines that surveying or marking is needed for effective or efficient implementation or enforcement of the permit, reclamation plan, Department rules or the Act. The operator will be notified of such requirement in writing and will be

allowed a reasonable time to accomplish the survey or marking requirements.

(3) The Department may require an operator to update the surveys or maps required under this rule if the operation is subject to a notice of violation under ORS 517.860, a suspension order under ORS 517.880, or a significant modification of the operating permit.

Stat. Auth.: ORS 183.341, 197.180, 517.740 & 517.800(3) & (4)

Stats. Implemented: ORS 517.740, 517.800 & 517.850

Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 7, f. 11-7-74, ef. 12-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 4-1990, f. 9-6-90, cert. ef. 10-10-90; GMI 3-1991, f. 10-21-91, cert. ef. 11-1-91; GMI 1-1992, f. & cert. ef. 6-17-92; GMI 1-1993, f. 10-29-93, cert. ef. 11-4-93; GMI 2-1997, f. & cert. ef. 10-14-97; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0016

Total Exemptions

(1) Activities that would be included in the definition of surface mining in ORS 517.750(15) except for the fact that they are under the thresholds for excavation or disturbance in 517.750(15)(a) and 517.755 or excluded under 517.750(15)(b) are exempt from regulation under this rule division.

(a) The Department may require information to be provided by any person conducting mining activities to establish a total exemption.

(b) For operations producing less than 5,000 cubic yards of material per year and disturbing less than one acre of land per year that lose their total exemption under ORS 517.755 when mining operations affect more than five acres of land, all areas and operations at the site are subject to the Act and the rules adopted thereunder. When multiple mining areas are located within one parcel or contiguous parcels, the yards produced and disturbed acreage shall be calculated based on the total of all sites within the parcel or contiguous parcels.

(c) Excavation or other land disturbance operations reasonably necessary for farming include only the term "farming" as used in ORS 517.750(15)(b)(B) and means "farm use" as defined in 215.203 but does not include other uses permitted in exclusive farm-use zones under 215.213 or 215.283. Farm excavation or other land disturbance operations are reasonably necessary only if it substantially contributes to the profitability of the farm use and other alternatives to accomplish the same objective are significantly more expensive or otherwise impractical. Farming does not include excavation for ponds intended for recreational or aesthetics purposes or for fish or wildlife habitat.

(2) An operator may apply for a total exemption certificate, if desired. The application must be made to the Department using the established form. The Department may require the operator claiming this exemption to provide data to establish the validity of the exemption. The data required may include, but is not limited to:

(a) The name of the operator;

(b) Location of the excavation;

(c) Size of the site;

(d) Date of commencement of the excavation;

(e) A summary of the previous 36 months' activities and an estimate of the activity for the succeeding 36 months; and

(f) An explanation of why the activity is exempt.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.750

Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 7, f. 11-7-74, ef. 12-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1986, f. 9-19-86, ef. 9-22-86; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 2-1997, f. & cert. ef. 10-14-97; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0017

Limited Exemption

(1) For the purposes of this rule:

(a) "Expansion" means lateral expansion consequential to surface mining into land surfaces previously not affected by surface mining.

(b) "Lands within the surfaces and contours of surface mines in existence on July 1, 1972," means land affected by surface mining before July 1, 1972, that have not been adequately reclaimed.

(2) The following mining operations are exempt from reclamation except as provided in ORS 517.775:

(a) Lands within the surfaces and contours of surface mines in existence on July 1, 1972, or vertical extensions of those surfaces and contours, provided the Department issued a certificate of exemption to the mining operation on or before October 31, 2000; and

(b) Lands within the surfaces and contours of surface mining operations that are owned or operated by a person who, on July 1, 1972, was a party to a surface mining contract that was valid on January 1, 1971,

provided the Department issued a certificate of exemption to the mining operation on or before September 20, 1985.

(3) The holder of a limited exemption certificate shall renew the limited exemption annually by submitting the renewal form and fee to the Department before the certificate expires. A certificate of exemption terminates if the landowner or operator does not renew the certificate annually. The Department may request information to determine continued eligibility.

(4) No surface mining is permitted outside of the limited exemption area without an operating permit unless the expansion qualifies for a total exemption from regulation under ORS 517.750(15) and OAR 632-030-0016. Expansion of a site operating under a limited exemption certificate before the operating permit is issued constitutes surface mining without a permit and is prohibited by ORS 517.790. The operating permit issued for an expanded site applies only to the expansion area; the area within the limited exemption boundary retains its limited exemption status so long as the limited exemption certificate is properly maintained.

(5) For sites operating under a limited exemption certificate, the landowner or operator must submit a closure plan to the Department for approval prior to the exemption renewal date in the year 2010, or at least one year prior to the completion of mining, whichever comes first. The closure plan must be signed by the landowner and by the operator if the operator is different from the landowner. For purposes of this section, "landowner" means the owner of the surface of the land or the owner of the mineral estate if the mineral estate owner is different from the surface land owner. The closure plan must reasonably control erosion and must reasonably ensure that there will be no off-site impacts to surface or ground water from the mined land. The closure plan must include, but is not limited to:

- (a) Name and address of the landowner;
 - (b) Name and address of the mine operator and holder of the limited exemption certificate if different from the landowner;
 - (c) The commodity or commodities mined at the site;
 - (d) A map or maps showing the boundary of the area subject to the limited exemption, existing topography, springs, surface waters, wetlands, and final slope configuration, and also showing whether final slopes are cut slopes or fill slopes and how any drainage will be managed;
 - (e) Detailed stabilization and sediment control measures;
 - (f) Detailed revegetation measures including a description of soils, seed bed preparation, mulching, fertilization, plant species, seeding or planting rates, and seeding or planting dates;
 - (g) Design plans for any sediment control structures to be constructed or installed on the site;
 - (h) A description of all stockpiles, petroleum products and any toxic or hazardous substances or materials stored on the site and a description of how these stockpiles, products, substances, or materials will be managed or removed from the site; and
 - (i) Removal of refuse, structures, foundations, abandoned equipment, or metal debris.
- (6) If the limited exemption is terminated, all mining allowed under the exemption must cease immediately and the landowner or operator must:
- (a) Immediately begin implementation of the closure plan required under section (8) of this rule; or
 - (b) If no closure plan has been submitted to the Department, submit a closure plan to the Department within 30 days and begin implementing the closure plan within 30 days after approval by the Department; or
 - (c) Within 30 days, submit an application to the Department for a new operating permit (for sites previously operating only under a limited exemption certificate) or an amendment to the existing operating permit (for sites operating under both a limited exemption certificate and an operating permit).

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.770 & 517.775

Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 7, f. 11-7-74, ef. 12-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 2-1997, f. & cert. ef. 10-14-97; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 2-2003, f. & cert. ef. 8-22-03; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0018

County Authority; City or County Operations

(1) Columbia County is the only county operating its own mined land reclamation program under ORS 517.780(1) and mining operations in Columbia County are exempt from regulation under these rules.

(2)(a) When any city or county elects to exempt from these rules any city or county owned or operated sites according to the provisions of ORS 517.780(2), it must adopt the required ordinance for all city and county operated sites and notify the Department of its action. A copy of the ordinance must be provided with the notification. The city or county ordinance must meet the requirements of 517.780(2);

(b) Each city or county that operates under its own ordinance under ORS 517.780(2) must annually supply the Department with a list of sites covered by the exemption. The information provided for each site on the list must include the following: legal description, land ownership, acreage affected, acres reclaimed, and status;

(c) Any city or county exercising an exemption under ORS 517.780(2) must designate a surface mining administrator and notify the Department of the name of the administrator. The portion of each property mined by the city or county under this exemption must be under the exclusive control of the city or county. Reclamation of each site must be completed before the city or county relinquishes control of the site;

(d) In order to maintain an exemption under ORS 517.780(3), a city or county may not produce more than 5,000 cubic yards of material per year for a purpose other than city or county-owned projects or for on-site use by the landowner.

(e) A city or county surface mining operations operating under this exemption may not disturb more than one acre of land unless the city or county has in place an ordinance that ensures an enforceable reclamation plan is in place that ensures that natural resources will be protected during mining and reclamation and that all disturbed lands will be reclaimed in a timely manner returned and suitable for the beneficial use or uses allowed under the applicable comprehensive plan and land-use regulations.

Stat. Auth.: ORS 516.090(2)(a), 517.740 & 517.840(1)(d)

Stats. Implemented: ORS 517.780

Hist.: DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0019

Surface Mining on Federal Lands

To the maximum extent permitted by law, surface mining conducted on federal lands is subject to the Act and these rules. The Department will coordinate with agencies of the federal government to minimize conflict or duplication in operating, reclamation, and security requirements. The Department may enter into formal agreements with federal agencies to establish the means by which these rules are carried out.

Stat. Auth.: ORS 516.090(2)(a), 517.740 & 517.840(1)(d)

Stats. Implemented: ORS 517.760 & 517.840

Hist.: DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0020

Procedures for Applying for an Operating Permit

(1) The applicant shall submit the required application forms and such additional information as may be required by the Department for each separate surface mining operation.

(2) The applicant shall submit a reclamation plan as defined in OAR 632-030-0025. The reclamation plan must include a map acceptable to the Department as provided in 632-030-0015 and 632-030-0025(2).

(3) The application must be accompanied by the application fee.

(4) The applicant must submit a performance bond or alternative form of security acceptable to the Department for the purpose of assuring performance of the reclamation plan, other requirements of ORS 517.750 to 517.900, all rules thereunder, and permit conditions. A performance bond or alternative form of security must be in effect and approved by the Department under OAR 632-030-0021 prior to any disturbance of the land.

(5) If the applicant fails to meet the requirements of sections (1) through (4) of this rule within 12 months after the application is submitted, the application is deemed to have been withdrawn. The applicant may resubmit an application without prejudice, but the new application must be accompanied by a new application fee.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.790 & 517.810

Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 7, f. 11-7-74, ef. 12-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 2-1997, f. & cert. ef. 10-14-97; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0021

Performance Bonds and Alternative Forms of Security

(1) No Operating Permit shall be issued or renewed until a bond or alternative form of security for a surface mining site is accepted by the

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Department. The bond or other security must be maintained until the Department determines that the surface mining site has been reclaimed in accordance with the approved reclamation plan.

(2) The Department may accept performance bonds, security deposit assignments, letters of credit, or other security as authorized by ORS 517.810. Performance bonds must be provided by surety companies authorized to do business in Oregon. The security document submitted must be in a form acceptable to the Department.

(3) A security submitted for multiple surface mining sites under the provisions of ORS 517.810(4) must be accompanied by a list showing the permits covered by the security, the amount of the bond applicable to each surface mining site, and the number of acres bonded at each site. The Department may accept a multiple site bond for sites operated by all members of an established trade association.

(4) The Department shall determine the amount of the bond or other security required by estimating the cost of reclamation if the Department were to perform the reclamation. The Department may seek the advice of other agencies to determine the appropriate security amounts.

(5) The Department may consider when determining the amount of security:

(a) The size and geometry of the area proposed for disturbance and the projected disturbance over the next 12 months;

(b) Supervision;

(c) Mobilization;

(d) Costs of equipment;

(e) Equipment capability;

(f) Costs of labor;

(g) Removal or disposition of debris, junk, equipment, structures, foundations, and unwanted chemicals;

(h) Reduction of hazards such as in-water slopes, highwalls, landslides, or other mass failure;

(i) Disposition of oversize, rejects, scalplings, overburden;

(j) Backfilling, contouring, or regrading and topsoil replacement;

(k) Draining, establishment of drainage, and erosion control;

(l) Soil tests;

(m) Seedbed preparation, seeding, mulching, fertilizing, netting, tackifiers, or other stabilizing agents;

(n) Tree and shrub planting;

(o) Fencing;

(p) Liability insurance.

(6) Cost estimate information shall be derived from sources such as:

(a) Comparable costs from similar projects;

(b) Catalog prices;

(c) Guides and cost estimates obtained from appropriate government and private sources;

(d) Operator estimates;

(e) Equipment handbooks.

(7) Seed mixes, fertilizer rates, and other requirements will be derived from departmental experience combined with advice from such sources as the Oregon Department of Agriculture, Natural Resources Conservation Service, Oregon State University Extension Service, the Department of Transportation, the Bureau of Land Management, US Forest Service, and private sector experts.

(8) The applicant may submit reclamation cost estimates for consideration by the Department.

(9) The security amount shall be based on the total cost of reclamation. However, the Department may allow for the amount of the bond to be calculated and adjusted based upon the total area expected to be in a disturbed condition in the following year as a result of the surface mining or exploration if:

(a) The Department determines that it can calculate the lesser amount with reasonable accuracy, and

(b) The applicant agrees in writing to increase the security amount as directed by the Department based upon new information or changes in the areas disturbed by surface mining.

(10) Security amounts shall not include construction of structures or comparable features such as "housing developments" or "industrial construction" even if included in a reclamation plan.

(11)(a) The Department may reduce the bond or alternative form of security by an amount not to exceed 50 percent for a surface mine aggregate site that meets the following conditions:

(i) The permittee has had a valid Operating Permit at the site for ten years; and

(ii) The permittee can demonstrate substantial financial ability to perform the reclamation in the approved reclamation plan.

(b) The Department will consider the compliance history of the permittee in any bond reduction determination.

(12) A decision of the Department regarding the estimated cost of reclamation or the type of acceptable security may be appealed to the Governing Board as provided in ORS 183.310 to 183.550.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.760

Hist.: DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0022

Fees

(1) The fees applicable to this rule division are the maximum fees allowed by ORS 517.800 except as provided below.

(2) Annual Fees are due on the anniversary date of the issuance of the operating permit unless a different renewal date is established by the Department. The Department will provide the permittee with 180 days advance notice before establishing a new renewal date. The Department will prorate annual fees at the permittee's request if a new renewal date is established.

(3) A permittee or holder of a limited exemption certificate must renew the operating permit or limited exemption certificate annually, on or before the last day of the month shown on the permit or certificate as the renewal month. The annual fee must be paid and the annual report form returned prior to renewal. A permittee must pay all delinquent fees owed to this Department prior to renewal of the permit;

(4) The Department will impose a late fee equal to five percent of the amount of any annual fee that is more than 60 days past due.

(5) The fees established by this rule also apply to emergency permits issued pursuant to ORS 517.832 and temporary operating permits issued under ORS 517.834.

(6) The Department may waive the fee for a minor amendment in those situations where significant administrative resources are not needed to process the amendment.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.800

Hist.: GMI 2-1997, f. & cert. ef. 10-14-97; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 2-2003, f. & cert. ef. 8-22-03; DGMI 3-2003, f. 8-29-03, cert. ef. 9-1-03; DGMI 1-2005(Temp), f. & cert. ef. 8-3-05 thru 1-30-06; DGMI 1-2006, f. & cert. ef. 1-10-06; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0024

Inspections

(1) As provided by ORS 517.850, the Department may, after reasonable notice, inspect any surface mining site to determine status or compliance with the Act, the rules adopted thereunder, or any permit conditions. The Department may report the results of these inspections to the permittee in writing.

(2) Initial inspections will be conducted by the Department on all new sites that have not been previously inspected by the Department. On all other sites, routine inspections may be conducted by the Department. Reasons for the inspections include, but are not limited to:

(a) Determining existing environmental conditions;

(b) Reviewing the proposed mine operation;

(c) Reviewing the proposed reclamation plan; and

(d) Collecting data to calculate the amount of the reclamation bond.

(3) Annual and compliance inspections may be conducted by the Department. Reasons for the inspection include, but are not limited, to:

(a) Reviewing operating permit compliance;

(b) Investigating complaints; and

(c) Evaluating the adequacy of the amount of the bond or alternative form of security.

Stat. Auth.: ORS 516.090(2)(a), 517.740 & 517.840(1)(d)

Stats. Implemented: ORS 517.830, 517.840 & 517.850

Hist.: DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0025

Requirements for an Operating Permit and Reclamation Plan

(1) An applicant for an operating permit shall submit a reclamation plan to the Department as required in OAR 632-030-0020. The information that the Department may require in a reclamation plan includes, but is not limited to, the following:

(a) The name(s) and address(es) of all owners of the surface estate and mineral estate;

(b) The legal structure (e.g., corporation, partnership, individual) of the applicant;

(c) The name and mailing address for correspondence;

(d) The name and mailing address of the applicant's resident agent;
 (e) A description of the present land use and planned beneficial use of the site following mining. The applicant must demonstrate that the planned beneficial use is compatible with the affected local government's acknowledged comprehensive plan and land-use regulations;

(f) The identification and characterization of the soils present, including any areas that have wetlands and hydric soils;

(g) The identification of any fish or wildlife species that may be present that is listed or proposed for listing by either federal or state as sensitive, threatened, or endangered or otherwise may require buffers for protection;

(h) A general list of equipment to be used and a description of mining methods including interim slope angles during the life of the mine;

(i) Provisions for the backfilling, recontouring, decompaction, topsoil replacement, seedbed preparation, mulching, fertilizing, selection of plant species, seeding or planting rates, weed control, and schedules;

(j) The characterization of the ground and surface water based on available wells, drill logs, location of springs, and surface drainages within one mile of the proposed operation may be required. The Department may also require the collection and submission of additional hydrologic data to evaluate the mine development and reclamation plan;

(k) Stream hydrology and other hydrologic information for floodplain sites;

(l) Ground water characterization and/or measures to prevent significant adverse impacts to surface or ground water quantity or quality;

(m) Other baseline information necessary to evaluate the mine development and reclamation plan;

(n) A list and procedures for the handling and use of any materials toxic to plant and/or animal life, acid forming materials or radioactive material which will be at the mine site. The Department may also require an analysis of process water, reagents, wastes, or other materials involved in the mining and processing operations;

(o) Procedures for the salvage, storage, and replacement of topsoil or acceptable substitute. The Department may require the applicant to submit a chemical and physical analysis of the seedbed and subsoil;

(p) Procedures for the stable storage of overburden. This may include a description of the pre-mine topography, method for placement of overburden, height of lifts, compaction standards, final height, and slope configurations, and/or a geotechnical design and construction plans for a storage pile or fill proposed as a final reclamation feature;

(q) Provisions for adequate setbacks to protect adjacent property and public safety;

(r) Provisions to protect and maintain access to utilities when a utility company right-of-way exists;

(s) Visual screening of the proposed operation may be required when the operating area is visible from a public road or residential area. Techniques for visual screening include, but are not limited to, vegetation, fencing, berms, setbacks, or buffer strips along the property boundary;

(t) Procedures for surface water, stream, and floodplain protection and operational and post-mine hydrologic controls may include, but are not limited to:

(A) Procedures to protect surface water quality and to control erosion include the following:

- (i) Rock lined ditches, rock lined haul roads, or work areas;
- (ii) Detention ponds and sedimentation basins;
- (iii) Rock check dams and grade control structures;
- (iv) Temporary diversions;
- (v) Flocculation systems and/or surface disposal systems;
- (vi) Runoff and pond sizing calculations.

(B) Procedures to protect or reconstruct waterways or drainage patterns impacted by mine related disturbances or reclamation by the design and construction of a post-mine drainage control plan to convey storm water and surface water off the property in a manner that will provide long-term stability to the reclaimed land.

(C) Procedures to protect natural resources. The Department may determine it is in the best interest of protection of natural resources and final reclamation to require procedures to integrate flood water passage plans, storm water controls, or fish ingress/egress plans at adjoining mine sites. Such a requirement by the Department is not considered a permit amendment.

(D) Procedures to promote final reclamation and floodplain stability or protection of streams, riparian buffers, and operational setbacks may require detailed engineering and planning for:

(i) Pond bank and channel bank weirs or other headcut protection plans;

(ii) Floodwater conveyance channels or structures;

(iii) Flood berms;

(iv) Protection of channel migration zone;

(v) Protection or stabilization of stream channel buffers.

(u) A proposed time schedule for surface mining and reclamation and a description of how concurrent reclamation, if applicable, will be accomplished during the life of mine.

(v) Additional steps planned to enhance fish or wildlife habitat or to create wetlands for sites where fish or wildlife habitat or wetland construction is part of the designated post-mining land use;

(w) Procedures for the removal or disposal of all equipment, refuse, structures, and foundations from the permit area except permanent structures that are part of an approved reclamation plan;

(x) Final slope configurations and how they will be stabilized;

(y) A plan for the control of noxious weeds may be required;

(z) Provisions to protect fish and wildlife species by providing operational setbacks;

(aa) Fish ingress/egress plans for floodplain sites; and

(bb) Procedures for placement of imported fill and the protection of fill quality.

(A) Imported fill placed inside an operating permit boundary and used as reclamation backfill or other subsurface placement must meet the Oregon Department of Environmental Quality definition of clean fill as provided in OAR 340-093-0030, and includes soil, rock, seasoned asphalt, or concrete free of other contaminants.

(B) Within a 100-year floodplain, no concrete or asphalt rubble may be backfilled unless the Department determines there is no significant risk to public health, safety, or the environment. Generally, rubble must be placed outside of recent channel migration zones and buried a minimum of 10 feet deep. The Department must approve the fill disposal plan in writing.

(cc) If the affected local government designates a post-mine land use or uses through a comprehensive plan amendment or zone change, or requires a conservation easement to be established after reclamation, the plan submitted to the Department must specifically address how the post-mine land use(s) will be established.

(2) In addition to the requirements set out in OAR 632-030-0015(2), the Department may require maps, aerial photographs, or design drawings of appropriate scale. Information that typically may be required on maps, aerial photographs or design drawings includes but is not limited to:

(a) Permit area boundary, property lines, and property line setbacks;

(b) Maximum extraction boundary delineating mine phases and reclamation sequence;

(c) Waste rock, rejects, overburden, and soil storage areas and stockpiles;

(d) Processing plant and location of existing or proposed visual screens;

(e) Ancillary facilities location;

(f) Haul roads;

(g) Typical pre- and post-mine cross sections and topographic plan views;

(h) Existing watercourses, including irrigation ditches, streams, rivers, and ponds;

(i) Setback and buffer strips for wetlands and stream drainages;

(j) Storm and/or wastewater control structures, ponds, and ditches;

(k) Location of any engineered structures or engineered fill;

(l) Reconstructed watercourses, ponds, and location of fish egress/ingress channels;

(m) Location of the 100-year FEMA floodplain boundary or a site-specific hydrologic study that identifies the 100-year floodplain boundary based on hydraulic modeling;

(n) Proposed and existing mine areas and backfill locations;

(o) Location of existing and proposed dikes and berms;

(p) Post-mining topography;

(q) Location of any well within 1,000 feet of permit boundary. Where dewatering is proposed, location of any well within 1,500 feet of permit boundary;

(r) Land-use authority boundary; and

(s) Nest setbacks, to the extent they limit mineral extraction, for eagles or other species specifically protected by city or county land-use conditions or state or federal laws.

(3) The applicant should contact the Department for recommendations regarding scale and amount of detail required. The applicant may be required to submit extra copies of materials to be circulated to other agencies.

(4) The applicant must provide proof of ownership of surface and mineral rights or document to the satisfaction of the Department that the requirements of ORS 517.790(3) are met.

Stat. Auth.: ORS 183.341, 197.180, 516.090(2)(a), 517.740 & 517.840(1)(d)
 Stats. Implemented: ORS 517.790
 Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 7, f. 11-7-74, ef. 12-11-74; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1986, f. 9-19-86, ef. 9-22-86; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 1-1992, f. & cert. ef. 6-17-92; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0026

On-Site Construction Waiver

The Department may, in its discretion, waive the requirements for preparation and approval of a reclamation plan if the requirements of ORS 517.790(2)(a) through (c) are satisfied and specific plans or functionally similar requirements approved and enforced by a governmental entity are sufficient to ensure that property will be converted to the new use in a timely fashion.

Stat. Auth.: ORS 516.090, 517.810 & 517.840
 Stats. Implemented: ORS 517.750 - 517.992
 Hist.: DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0027

Minimum Standards for a Reclamation Plan

A reclamation plan submitted under 632-030-0025 must meet the following minimum standards:

(1) Final slopes must be stable. Reclaimed cutbanks may not have slopes exceeding 1-1/2 horizontal to 1 vertical (1-1/2H:1V). Final slopes may be blasted or sculpted to blend into adjacent landforms or for creation of habitat. The Department may require the submission of a reclamation blast plan to assure stable slopes will be created and adjacent property will be protected. The Department may also grant exceptions for slopes steeper than 1-1/2H:1V when the applicant can document that the slopes will be stable and if the steeper slopes:

- (a) Blend into the adjacent terrain;
- (b) Existed prior to mining; or
- (c) Are consistent with the approved subsequent beneficial use.

(2) Interim and final above-water cutslopes for sites located within the boundaries of a 100-year floodplain can be no steeper than 3H:1V.

(3) Slope requirements.

- (a) Fill slopes must be 2 horizontal to 1 vertical (2H:1V) or flatter.
- (b) Fill slopes steeper than 2H:1V may be approved if technical data supporting slope stability is approved by the Department.

(c) In unconsolidated material or when slope length exceeds 100 lineal feet, 3H:1V slopes or flatter may be required to assure long-term stability.

(d) Complex slope formations may be necessary to enhance habitat and post-mine landscape diversity.

(e) Flatter slopes (5H:1V to 10H:1V) will be needed where wetland creation is proposed.

(f) For sites within the 100-year floodplain, final above-water fill slopes can only be placed over cutslopes that are 3H:1V, or flatter, unless the Department agrees in writing to a different ratio based on a determination that the flood potential is very low.

(4) Generally, final revegetation with native species of all disturbed areas consistent with future use is required unless the Department finds it unreasonable. The Department will, in most instances, consider revegetation successful if it provides a similar plant density in terms of ground or canopy cover and it is comparable to undisturbed areas in similar landscape positions. In arid or semi-arid regions, the Department may allow three years of growth prior to a revegetation evaluation. Otherwise, revegetation will be evaluated after one growing season. Vegetation test plots may be required to ensure establishment feasibility and/or long-term habitat goals in the reclamation plan. Vegetation monitoring may also be required to insure success of the approved plan.

(5) Establishment of 3H:1V slopes from ordinary high-water level extending to six feet below ordinary low-water level for permanent water impoundments is required. In addition to the 3H:1V slopes, the Department may approve other sloping configurations where horizontal benches are incorporated as habitat features.

(a) Other above- and below-water bank sloping may be approved for constructed alcoves or other habitat features or projects.

(b) Establishment of a stable slope angle or benching for below-water slopes to insure an adequate foundation for the proposed in-water and above-water slopes or fills is required.

(c) A geotechnical study may be required to address slope stability.

(6) All stream channels and stream banks must be rehabilitated using procedures that minimize bank erosion, channel scour, and sedimentation; and maximize habitat.

(7) Reclamation must be completed in a timely manner. If there is no production at a mine site for a period of five or more consecutive years, the permittee shall submit a report to the Department on the remaining reserves. The report must include an estimate of the quantity of the remaining mineral reserves. The report must be signed by a professional geologist or include drill logs or other quantitative analysis acceptable to the Department. If the submission of such data poses a financial hardship to the permittee, the Department will attempt to work with the permittee to provide the necessary geologic expertise as Department staff resources allow or the Department may waive this requirement. Any waiver provided by the Department must be in writing and must specify the duration for which the requirement is waived.

(8) If the Department determines that the reserves are insignificant or the operator is unlikely to be able to economically mine the site in the reasonably foreseeable future, the Department will order reclamation and may establish a reasonable period for its completion.

Stat. Auth.: ORS 517
 Stats. Implemented: ORS 517.800
 Hist.: DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2001, f. & cert. ef. 8-6-01; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0030

Department Action on Reclamation Plan and Operating Permit Application; Provisional Operating Permits; Local Government Actions

(1) Within 90 days after receiving an application for an operating permit:

(a) The Department will issue the operating permit or

(b) Notify the applicant if the Department determines that either the permit application or the proposed reclamation plan is not complete.

(c) If the Department determines the application is incomplete it will notify the applicant of the information or documentation needed to make the submittal complete. A notice of an incomplete submittal does not constitute a denial of the operating permit application and proposed reclamation plan.

(d) The Department will determine the adequacy of the operating permit application and proposed reclamation plan by taking the following actions:

(A) Inspect the site in accordance with OAR 632-030-0024 and file an inspection report;

(B) Circulate the complete operating permit application, including the proposed reclamation plan, draft operating permit, an inspection report or an evaluation to appropriate federal, state, and local agencies for review and comment.

(C) Notify the affected local government in writing that an operating permit application and proposed reclamation plan have been received by the Department, accompanied by a request that a determination be made if a local land-use permit pursuant to ORS 215.428 or 227.178 or a comprehensive plan amendment is required.

(D) Determine the appropriate amount of the reclamation bond or alternative form of security; and

(E) Notify the applicant of any deficiencies that will be addressed by attaching conditions to the operating permit.

(2) The Department will ensure consistency with local government land-use plans and regulations as follows:

(a) Applications involving a local land-use permit and a request by the affected local jurisdiction that it act first: If the affected local government informs the Department under subsection (1)(d)(C) of this rule that the application involves an aggregate site that requires a local-land use permit issued pursuant to ORS 215.428 or 227.178, and the local government requests that the application not be decided by the Department until the local government has taken final action, the Department will make its final decision on the operating permit and reclamation plan no later than 165 days after the date a complete land-use application is submitted to the local government, unless the applicant agrees to allow additional time under 215.428 or 227.178. The Department will not approve the operating permit and reclamation plan or modification to existing permits if the application for the local land-use permit is denied

by the local jurisdiction. However, in a situation where action on the local land-use permit is still pending, the Department may initiate its review of the application for its technical acceptability before the local government makes its final decision. The results of the Department's technical review will be provided to the local government and the applicant. For the purposes of this section, a requirement for review of a site plan is not a local land-use permit.

(b) Applications involving a comprehensive plan amendment: If the affected local government informs the Department under subsection (1)(d)(C) of this rule that the application involves an aggregate site that requires a comprehensive plan amendment, and the local government requests that the application not be decided until the local government has taken final action on the plan amendment, the Department will not make its final decision on the operating permit and reclamation plan until the local government has taken final action on the plan amendment. The Department will make its final decision on an application within 45 days of the date that the local government has taken final action on the plan amendment unless a longer period is required under subsection (2)(a) of this rule. For applications for new operating permits or intensification or substantial modification to existing operating permits the Department will not approve the operating permit or intensification or substantial modification if the application for the comprehensive plan amendment is denied by the local jurisdiction.

(c) If the affected local government does not request that the Department delay a decision on an operating permit and a reclamation plan as provided in subsection (2)(a) or (b) of this rule, the Department will give the local government opportunity to review and comment on the application in the manner described in subsection (1)(d)(B) of this rule. If the local government fails to respond in writing within 30 days of mailing, the Department will issue its decision within 45 days of receipt of complete application. Local government approval must also be obtained before operation under the permit can begin.

(d) If no local government permit or approval is required, the applicant shall provide a written statement to that effect from the local government to the Department.

(3)(a) The Department will notify the affected local government of the Department's decision under subsections (2) (a), (b), and (c) of this rule to approve or deny an operating permit and reclamation plan, including any requirements and conditions imposed by the Department.

(b) Any conditions and requirements imposed by the Department on an operating permit and reclamation plan, including any modifications made pursuant to OAR 632-030-0035, issued subsequent to a final local land-use approval must be compatible with the requirements and conditions of the local government land-use plan and permit, including any conditions established to comply with statewide planning Goal 5, unless more stringent Department requirements are necessary to comply with the provisions of ORS 517.750 to 517.900. Any issue concerning the compatibility of the Department's permit decision with the requirements and conditions of the local government comprehensive plan or land-use permit may be addressed in accordance with the Department's dispute resolution process as set forth in OAR 632-001-0015(6).

(4) Within 60 days after the receipt of a deficiency list or permit conditions, the applicant shall comply with the additional requirements prescribed by the Department or file a written notice of appeal of the decision to the Department in accordance with OAR 632-030-0056. Failure to comply with the additional requirements or file a notice of appeal within the 60-day period, unless an extension is granted by the Department, may result in the application for an operating permit being denied. As provided in ORS 517.830(2), the Department may issue a provisional operating permit to the applicant pending the outcome of the appeal, subject to the requirements of sections (1) through (3) of this rule.

(5) The Department may determine that the applicant's reclamation plan is technically acceptable if it adequately provides for reclamation of surface mined lands as required by OAR chapter 632, division 30, without issuing an operating permit, and so advise the local government.

(6) The Department may attach conditions to the operating permit. These conditions may be added to reflect special concerns which are not adequately addressed in the reclamation plan and fall within the scope of these rules. The permittee may appeal these conditions by filing a written notice of appeal in accordance with OAR 632-030-0056.

(7) The approval of the reclamation plan and the issuance of the operating permit by the Department does not constitute a finding of compliance with statewide planning goals or local regulations implementing acknowledged comprehensive land-use plans. The permittee is responsible for obtaining local land-use approval before commencing the pro-

posed surface mining activity. When issued by the Department, a statement placed on the operating permit and approved reclamation plan under subsection (2)(c) of this rule, will inform the applicant that:

(a) Issuance of the operating permit and approval of the reclamation plan is not a finding of compliance with the statewide planning goals (ORS 197.225) or compatibility with the acknowledged comprehensive plan; and

(b) The applicant must receive any land-use approval required from the affected local government before commencing surface mining authorized under the approved operating permit and reclamation plan.

(8) The Department may not issue, amend, renew, or transfer an operating permit to a person if person is not complying with the terms of an operating permit, reclamation plan, the provisions of the Act, or these rules. The Department may refuse to issue, amend, renew or transfer an operating permit to a person that has not substantially complied with an operating permit, a reclamation plan, the provisions of the Act, or these rules. For purposes of this rule, a person includes a subsidiary or other entity in which the person has a substantial financial interest.

Stat. Auth.: ORS 183.341, 197.180 & 517.740

Stats. Implemented: ORS 517.740 & 517.810

Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 7, f. 11-7-74, ef. 12-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 1-1992, f. & cert. ef. 6-17-92; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0035

Reclamation by the Department

(1) If a mine operator fails to comply with an order issued under ORS 517.860 or 517.880, the Department may perform the reclamation outlined in the reclamation plan to the extent possible given the condition of the site.

(2) The Department may perform alternative reclamation depending on site conditions.

(3) The Department may reclaim the site to:

(a) Eliminate or minimize hazards to the health and safety of the public;

(b) Eliminate or minimize any pollution or erosion or reestablish setbacks or buffers outside the excavation boundary;

(c) Mitigate impacts to natural resources by enhancing wildlife habitat or restoring a drainage;

(d) Be compatible with local agency regulations or an approved secondary beneficial use and with federal and state laws.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.800

Hist.: DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0035

Modification of an Operating Permit

(1) The modification of an operating permit may be initiated at any time by the permittee or by the Department. The term "modification," as used in this rule, means any modification, including but not limited to, "intensification" or "substantial modification," as defined in OAR 632-030-0010(6) and (11). The Department may circulate applications for intensification or substantial modifications to local government pursuant to ORS 517.830 and OAR 632-030-0030.

(2) An operating permit may be modified by approval of the Department after timely notice and opportunity for review as provided by ORS 517.830(5) and OAR 632-030-0030 in order to assure compliance with existing laws and land-use requirements or to accommodate unforeseen developments that may affect the operating permit and reclamation plan as previously approved.

(3) The Department may modify an operating permit or reclamation plan without the consent of the operator only as allowed by ORS 517.831. The Department initiation of a modification must be based on the potential for: substantial harm to off-site property, harm to threatened or endangered species, or channel changes or unstable pit walls. Therefore, a determination of substantial harm to off-site property may include likely effects when there is substantial evidence. For the three types of sites or concerns listed here, the substantial evidence may include on-site or off-site physical or biological indicators and other data:

(a) Substantial harm to off-site property: documentation by the Department of a loss of lateral support of a property line, slope movement, failure planes, tension cracks, vegetation displacement, or other indicators of slope instability, or geotechnical reports, slope measurements, or other monitoring data submitted by others.

(b) Harm to threatened or endangered species: documentation by the Department that threatened or endangered species are likely present

and mine activities have stranded threatened or endangered fish on the floodplain or mine activities have caused harm to threatened or endangered species or a take is likely to occur.

(c) Channel changes or unstable pit walls: documentation by the Department that stream bank erosion, channel migration, local geomorphic trends, site hydrology during flooding, and/or channel hydraulic conditions present clear indicators that pit wall stability is in jeopardy during future flood events.

(4) Substantial harm to off-site property justifying a modification under this rule and the Act includes, but is not limited to:

(a) Loss of vegetation or other effects due to embankment failure, pit wall, or storage pile failure

(b) Loss of vegetation or other effects due to erosion, headcutting, channel avulsion, and/or channel migration that has resulted in or is likely to result in a breach into or pit capture of a floodplain gravel mine

(c) Deposition of vegetation, soil, rock, other geologic materials, or mined materials or mine refuse

(d) Impacts to jurisdictional wetlands, sloughs, bogs, stream channels, or other natural features or constructed flood levees, revetments, or irrigation reservoirs, irrigation ditches, and intakes.

Stat. Auth.: ORS 183.341, 197.180, 516.090(2)(a), 517.740 & 517.840(1)(d)
Stats. Implemented: ORS 517.740 & 517.840
Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 1-1992, f. & cert. ef. 6-17-92; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2001, f. & cert. ef. 8-6-01; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0040

Maintaining an Operating Permit

(1) The Department may revoke, terminate, or refuse to renew an operating permit as provided in ORS 517.862.

(2) Prior to the anniversary date of an operating permit, the operator shall submit the required annual fee and file the annual report. The annual report must include production figures that provide a legal and accurate report of all materials mined or excavated. If requested by the Department, the operator must also submit an updated site plan map. The permittee shall maintain an operating permit until mining and reclamation, including revegetation (if required), have been completed.

(3) If the Department determines that the permittee has not complied or is not complying with the approved reclamation plan, permit conditions, the Act, or the rules adopted thereunder, the Department will take appropriate action including one or more of the following: a notice of violation under ORS 517.860, a compliance order under 517.860, a suspension order under ORS 517.880, recovery against the bond or alternative form of security under 517.860, and an assessment of civil penalties under 517.992.

Stat. Auth.: ORS 517
Stats. Implemented: ORS 517.740 & 517.800
Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 2-1997, f. & cert. ef. 10-14-97; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2000, f. & cert. ef. 7-20-00; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0041

Permit and Exemption Transfer

(1) An operating permit may be transferred as provided in ORS 517.833, subject to the following requirements:

(a) A person requesting transfer must submit a completed application on a form prescribed by the Department.

(b) The application must be signed by the applicant, current permittee, landowner, and mineral estate owner if different from the landowner.

(c) The applicant must submit the transfer application fee as provided and not to exceed in ORS 517.800.

(d) The applicant must submit a bond or alternative form of security acceptable to the Department.

(2) Prior to approving a permit transfer, the Department may review the existing operating permit and reclamation plan and the transfer of the permit may be denied or conditioned based on the failure of existing operations to comply with the permit, plan, provisions of the Mined Land Reclamation Act, or these rules. In addition, the Department may review existing operations to determine whether an amendment to operating permit or reclamation plan is appropriate under ORS 517.831 or 517.835.

(3) A limited exemption may be transferred subject to the following requirements:

(a) A person requesting transfer must submit a completed application on a form prescribed by the Department.

(b) The application must be signed by the applicant, current exemption holder, landowner, and mineral estate owner if different from the landowner.

(c) The applicant must submit the transfer application processing charge not to exceed \$250.

Stat. Auth.: ORS 516.090, 517.810, 517.833 & 517.840
Stats. Implemented: ORS 517.750 - 517.992
Hist.: DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0042

Termination of Operating Permits

(1) An operating permit is deemed to terminate by operation of law if any of the conditions set out in ORS 517.880 exist. The Department will notify the operator of the termination and the right to review.

(2) A permittee may request termination of a permit if:

(a) A permit has never been used;

(b) The required local land-use approvals are denied; or

(c) The requirements of an approved reclamation plan are complete.

(3) Reclamation obligations incurred prior to the date of cancellation of any bond or alternative form of security continue until the site is reclaimed.

Stat. Auth.: ORS 516.090(2)(a), 517.740 & 517.840(1)(d)
Stats. Implemented: ORS 517.800, 517.810 & 517.830
Hist.: DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0045

Obtaining Bond Release

(1) The permittee shall notify the Department in writing when the reclamation has been completed.

(2) The Department will inspect the reclaimed site. If the permittee has fulfilled the requirements of the approved reclamation plan, the bond or alternative form of security will be released. The Department may authorize a reduction in the security amount if the reclamation is partially complete.

Stat. Auth.: ORS 183.341, 197.180, 516.090(2)(a), 517.740 & 517.840(1)(d)
Stats. Implemented: ORS 517.810, 517.840 & 517.870
Hist.: GMI 5, f. 12-20-73, ef. 1-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; GMI 1-1992, f. & cert. ef. 6-17-92; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0049

Emergency Operating Permits

The Department may issue an emergency operating permit as authorized under ORS 517.832. An emergency operating permit is subject to the following additional limitations:

(1) The emergency operating permit may not be for a term in excess of three months and may be terminated by the Department on 48-hour notice.

(2) The operator may continue operations at the site after three months only if the emergency operating permit is replaced by a temporary, provisional, or regular operating permit. The operator must follow the procedures for applying for the temporary, provisional, or regular operating permit.

(3) The operator is required to provide notice of the proposed emergency operating permit to all federal agencies and public bodies as defined in ORS 174.109 that may be affected by the emergency operating permit and to provide the Department with the names of the agencies and public bodies notified and the manner of notification. The Department may require additional notification or deny the emergency operating permit if it determines that the notice is inadequate.

(4) The Department will not issue or will terminate an emergency operating permit upon receipt of an objection from an affected federal agency or public body.

(5) An operator seeking an emergency permit must pay a fee to the Department in an amount determined by the Department be adequate to cover the additional costs for staff and other related expenses.

(6) The Department may waive the requirement for a bond or alternative form of security for an emergency operating permit.

Stat. Auth.: ORS 516.090, 517.800, 517.810, 517.832 & 517.840
Stats. Implemented: ORS 517.750 - 517.992
Hist.: DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0052

Temporary Operating Permits

The Department may issue a temporary operating permit as authorized under ORS 517.834. A temporary operating permit is subject to the following additional limitations:

(1) The operator must provide 14 days' prior notice to adjacent property owners and all potentially affected federal agencies and public bodies. Public notice must be published in a newspaper that is broadly circulated in the areas adjacent to the proposed mine. Notice to property owners, federal agencies, and public bodies must be in writing and sent by U.S. mail or comparable means. The operator must provide the Department with documentation of the entities notified and the manner of notification. Notification must be in a form approved by the Department and must inform the recipients of the right to submit comments on the proposed temporary operating permit to the Department.

(2) A temporary operating permit may be issued for a term not to exceed 6 months, during which time the operator must apply for a regular operating permit. The operator must cease all excavation and processing and reclaim the site if the Department has not issued a provisional or regular operating permit before the term of the temporary operating permit expires.

Stat. Auth.: ORS 516.090, 517.810, 517.834 & 517.840
Stats. Implemented: ORS 517.750 - 517.992
Hist.: DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0056

Appeals

(1) Prior to the initiation of an administrative appeal of any Departmental order, notice, fee, or other action made pursuant to the Act or the rules adopted thereunder, the applicant or permittee may first request that the State Geologist informally review and resolve the matter. The State Geologist will provide a written decision within 30 days of receipt of such an informal request. If the State Geologist is unable to resolve the informal request, the applicant or permittee may request a contested case hearing by the Board or its designee for final resolution of the matter. Appeals must be filed within 30 days of receipt of the order, notice, other action being appealed, or receipt of State Geologist written decision except as otherwise provided by OAR 632-030-0030(4) and by the applicable provisions of 183.310 through 183.550. A final determination by the Board must be made before any appeal for judicial review under ORS 183.480 is allowed.

(2) An applicant or permittee requesting a hearing for consideration of any appeal shall state the reasons for requesting the hearing and the objections to the Department's order, notice, fee, or other action in accordance with ORS 183.430-183.470.

Stat. Auth.: ORS 516.090(2)(a), 517.740 & 517.840(1)(d)
Stats. Implemented: ORS 517.890
Hist.: GMI 7, f. 11-7-74, ef. 12-11-74; GMI 1-1980, f. 2-29-80, ef. 3-1-80; GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 1-1988, f. 3-30-88, cert. ef. 3-11-88; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

632-030-0070

Penalty Warning; Civil Penalty

(1) Applicability. This section of these rules applies to the imposition of civil penalties under ORS 517.992(2) for violations of statutes, rules, orders, and permit conditions not related to a chemical process mine.

(2) Definitions. For purposes of this rule:

(a) "Compliance Order" means an order issued under ORS 517.860(1)(b). The compliance order also may be used for informal disposition of proceedings through stipulation, agreed settlement, consent order, or default;

(b) "Notice of Violation" means a notice issued under ORS 517.860(1)(a);

(c) "Notice of Civil Penalty" means a notice that imposes a civil penalty under ORS 517.992(2);

(d) "Violation" means conduct for which a penalty may be imposed under ORS 517.992(2).

(3) Notice of Civil Penalty — Form and Service. A Notice of Civil Penalty shall be in a form and shall be served in the manner required by ORS 183.415.

(4) Appeals — Consolidation. Any person issued a Notice of Civil Penalty shall have the right to a contested case hearing. The hearing must be requested in writing within 20 days of the date of service.

(5) Civil Penalty — Classification:

(a) Civil penalties imposed under ORS 517.992(2) will be coordinated with other agencies to avoid duplication of penalty for the same violation and be in accordance with the following schedule:

(A) Class 1. Violation that poses no potential threat to human health, safety, or the environment: no more than \$1,000 per day;

(B) Class 2. Violation that poses a potential threat to human health, safety, or the environment, or repeat Class 1 Violation: no more than

\$3,000 per day. Potential threats to human health, safety, or the environment include, but are not limited to, actions that increase instability, erosion, or an unsafe condition at the site;

(C) Class 3. Violation that poses an immediate but remediable threat to the environment or a repeat Class 2 violation: no more than \$6,000 per day. For the purposes of this rule, an "immediate but remediable threat to the environment" means that without a quick response and considering such factors to include, but not limited to slope and erodibility, damage will occur and that upon remediation there will be no lasting effect of that damage.

(D) Class 4. Violation that:

(i) Poses an immediate threat to human health or safety;

(ii) Causes actual human injury;

(iii) Poses a threat to the environment that is immediate and not remediable;

(iv) Causes actual damage to the environment; or

(v) Is a repeat Class 3 violation: \$1,000 to \$10,000 per day.

(b) Each day of a continuing violation may be treated as a separate violation for purposes of imposing a civil penalty.

Stat. Auth.: ORS 516.090(2)(a), 517.740 & 517.840(1)(d)

Stats. Implemented: ORS 517.992

Hist.: GMI 1-1994, f. & cert. ef. 7-21-94; DGMI 1-1999, f. & cert. ef. 1-7-99; DGMI 1-2009, f. & cert. ef. 5-15-09

DIVISION 33

OREGON MINED LAND RECLAMATION ACT

Applicable to Exploration Activities Obtaining Permits After July 31, 1990

632-033-0005

Purpose of These Rules and Regulations

(1) For Mineral Exploration, these rules implement the purposes of the Mined Land Reclamation Act as declared by the Legislative Assembly that:

(a) To provide that the usefulness, productivity, and scenic values of all lands and water resources affected by surface and underground mining within this state receive the greatest practical degree of protection and reclamation necessary for their intended subsequent use.

(b) To provide for cooperation between private and government entities in carrying out the purposes of the Mined Land Reclamation Act.

(c) To encourage efficient and environmentally sound identification and development of mineral resources.

(2) These rules prescribe procedures for obtaining an Exploration Permit and for complying with the other requirements of the Oregon Mined Land Reclamation Act relating to exploration.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.702

Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

632-033-0010

Definitions

The definitions in ORS 517.750 apply to these regulations:

(1) "Abandonment of Exploration" means the cessation of exploration without reclamation or notification to the department within a reasonable time.

(2) A "Period of 12 Consecutive Calendar Months" as used in these rules begins on the date the exploration permit is issued.

(3) "Board" means the Governing Board of the State Department of Geology and Mineral Industries.

(4) "Closure Order" is a written notice from the department requiring the operator to cease and desist from exploration activities at the site described in the written notice.

(5) "Department" means the Department of Geology and Mineral Industries.

(6) "Disturbed or Disturbance" is any alteration within the permit area boundary where surface or subsurface resources are altered as a result of permitted exploration activities.

(7) "Exploration" means all activities conducted on or beneath the surface of the earth for the purpose of determining presence, location, extent, grade, or economic viability of a deposit. Exploration does not include prospecting.

(8) "Exploration Permit" is the permit issued by the department that allows the permittee to conduct exploration activities described in these rules and provides for reclamation as specified in ORS 517.750(13).

(g) "Groundwater" means any water except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir or other body of surface water within the boundaries of the state, whatever may be the geological formation or structure in which such water stands, flows, percolates or otherwise moves.

(10) "Mined Land Reclamation Act" or "Act" means the statutes codified at ORS 517.702 to 517.992.

(11) "Permit Area" is defined by boundaries submitted on a map acceptable to the department and means the area to be covered by an Exploration Permit. The permit area shall be a contiguous parcel which is available to the permittee for exploration.

(12) "Prospecting" for the purpose of these rules means activities conducted on or beneath the surface of the earth for the purpose of determining presence, location, extent, grade, or economic viability, but does not disturb more than one cumulative acre.

(13) "Reclamation" means the employment in exploration of procedures reasonably designed to minimize as much as practicable the disruption of surface and subsurface resources from exploration (i.e., for example the use of measures to protect the surface and subsurface water resources including but not limited to drill hole abandonments, adit plugging/sealing and shaft plugging/sealing) and to provide for the rehabilitation of any surface resources adversely effected by such exploration through the rehabilitation of plant cover, soil stability water resources and other measures appropriate to subsequent beneficial use of such explored and reclaimed lands.

(14) "Exemption" means exploration that is exempted from the requirements of these rules. The department may require certain information to be provided under OAR 632-033-0016(1) to establish exemptions.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.750

Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

632-033-0016

Exemptions

(1) The following exploration activities are exempt from these rules and do not require the payment of fees, posting of bond or submittal of reclamation plans:

(a) Exploration conducted solely within the beds and banks of any waters of this state are exempt from these rules when conducted pursuant to a permit issued under ORS 196.605 to 196.625 and 196.627 to 196.660.

(b) Prospecting where no exploration drill hole is drilled is exempt from these rules.

(c) Prospecting where exploration drilling is less than 50' deep on each hole is exempt from paying fees and the state financial security provisions of these rules, but must comply with the drill hole abandonment procedures of these rules.

(2) The provisions of ORS 517.702–517.740 and OAR 632, division 33 do not apply if the applicant has obtained an Operating Permit, described in ORS 517.790 and OAR 632, division 30, for the area described in the exploration permit.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.715, 517.720 & 517.730

Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

632-033-0025

Exploration Permit Requirements

(1) Applicants seeking Exploration Permits from the department should be aware that other state, federal and local agencies may require the applicant to obtain approval prior to operation. For example, the United States Forest Service (USFS) requires a notice of intent or plan of operations. Where feasible, the department shall coordinate with other agencies to avoid duplication on the part of applicants. An Exploration Permit from the department does not constitute authorization to proceed without approval of other agencies if required. It is the applicant's responsibility to obtain other necessary permits.

(2) Information Requirements. The department may require any information reasonably necessary to assess impacts of the proposed exploration and determine the status of any exploration. Any production records, mineral assessments or trade secrets submitted as part of an application shall be confidential.

(3) Exploration or drilling an exploration drill hole greater than 50' is subject to these rules.

(4) Exploration must be conducted to prevent a decrease in quality or loss of quantity to an existing or potential water supply to the greatest practicable extent.

(5) Exploration shall be conducted so as to minimize adverse effect upon wildlife.

(6) An applicant for an exploration permit is encouraged to contact the department at the Albany office at least 90 days prior to initiation of the proposed drilling activities.

(7) Information required in written form shall include but not be limited to:

(a) Contact Information:

(A) Name, address and telephone number of the applicant;

(B) Name, address, telephone number and verification of consent of the surface owner(s);

(C) Name, address, and telephone number of the project contact person;

(D) Name and address of the drilling contractor(s);

(E) Name, address, and telephone number of the mineral estate owner(s) and lessor if applicable;

(F) Name and address of any designated agent.

(b) Project Description:

(A) Legal description of the project area;

(B) Permit area map(s) of a suitable scale including but not limited to the following information:

(i) Proposed permit area boundary;

(ii) Locations of surface disturbance resulting from exploration activities;

(iii) Proposed location and identification of drill sites, trenches and bulk sampling sites; and

(iv) Proposed location and identification of stockpiles and waste-rock dumps.

(C) Type of Drilling (air, mud, diamond, rotary, etc.);

(D) Maximum proposed depth and diameter of drill holes;

(E) Drill pad and mud pit dimensions;

(F) Bulk sample volume;

(G) Extent and location of all underground workings to be constructed;

(H) Length and width of roads constructed or upgraded within the project area. Existing road should be identified and documented on an aerial photo or on map(s) of suitable scale;

(I) General description of past land use. In addition, the applicant must comply with federal and state statutes and rules regarding threatened, endangered, or sensitive species;

(J) Proposed starting date and expected duration;

(K) Agreement to notify the department within 48 hours of commencement of exploration activities;

(L) Geologic setting of the project, if available;

(M) Groundwater information, if available.

(c) Reclamation Plan:

(A) These rules recognize that specific field conditions may require alternative reclamation, drill hole abandonment or plugging/sealing requirements other than those listed in these rules to accomplish the purpose of these rules. Alternative reclamation, drill hole abandonment or plugging/sealing procedures shall be approved by the department when they meet the purposes of these rules;

(B) The purpose of the reclamation is to reclaim land disturbed by surface or underground exploration activities;

(C) Land disturbed by exploration activities must be reclaimed to a beneficial use approved by the department and consistent with county comprehensive plans or the appropriate federal agency;

(D) If there is no exploration conducted at the site for two years, reclamation of the site must commence or a written justification provided to the department as to why reclamation has not commenced;

(E) Unless alternative reclamation provisions are approved by the department reclamation of land disturbed by exploration shall include but not be limited to:

(i) Removal of all materials and supplies used in the exploration activity not approved to remain at the permit area.

(ii) Vegetation cleared from the site shall be properly disposed of or dispersed;

(iii) Drill cuttings must be spread to a depth no greater than one inch or buried in an approved location;

(iv) Roads, drill pads, mud pits, trenches, and other disturbances shall be backfilled to the approximate original contour and graded to blend with the surrounding land surface;

(v) Roads not to be reclaimed require written approval from the landowner and shall be left in a stable condition acceptable to the department;

(vi) If vegetative cover was destroyed, a department approved revegetation plan shall be used in the first period favorable for planting;

(vii) If necessary to assure successful revegetation, the disturbed areas shall be scarified, fertilized, and mulched to approved specifications;

(d) Exploration Drill Holes Completed As Wells: An exploration drill hole converted to a monitoring well or to a water well shall be completed in accordance with Department of Environmental Quality or Water Resources Department statutes and rules prior to release of the financial security.

(e) Drill Hole Abandonment Provisions:

(A) The purpose of the abandonment plan is to:

(i) Prevent loss of quality and minimize to the greatest extent practicable, loss of quantity to all surface and groundwaters and prevent inter-aquifer mixing;

(ii) Prevent aquifer contamination from surface drainage.

(B) Unless alternative abandonment procedures are approved by the department all exploration drill holes shall be abandoned as follows;

(C) Any drill hole which produces a natural flow of water to the surface must be filled with neat cement slurry from the bottom of the hole to two feet below either the reclaimed land surface or the collar of the hole, whichever is the lowest elevation. Neat cement slurry should be American Petroleum Institute (API) class A or B, or ASTM C-150 Type I or II neat cement with no additives, mixed in the proportion of 5.2 gallons of water per standard 94 pound sack and having a mud weight of 15.6 pounds per gallon;

(D) Any exploration drill hole that encounters groundwater that does not flow to the surface shall be sealed with a hole volume of:

(i) A high quality sodium bentonite product specifically formulated for drill hole abandonment;

(ii) Cement grout;

(iii) Other appropriate drill hole abandonment material.

(E) Whenever a cased drill hole is not completed as a water well, if reasonably possible the surface casing shall be pulled. If the casing cannot be pulled the casing shall be cut off and capped at a minimum depth compatible with local cultivation practices or at the surface in rangeland;

(F) All drill holes shall be surface capped to reduce the potential of downhole contamination from the surface and to prevent injury to wildlife and domestic stock. The surface cap shall consist of a non-slip hole cap placed at a point five feet below the upper surface of bedrock or seven feet below the land surface whichever is the lower elevation. A minimum five foot column of Portland cement or concrete cap shall be placed above the non-slip plug. The top of the Portland cement or concrete cap shall be a minimum of two feet below either the original land surface or the top of the casing whichever is the lower elevation. The remainder of the hole shall be backfilled with native materials and reclaimed consistent with the reclamation provision of the rules. Drill hole abandonment material may constitute a surface cap where abandonment materials remain at or close to the surface and is compatible with local cultivation practices. Void space between the top of the cap and the land surface shall be backfilled with native materials and reclaimed consistent with the reclamation provision of these rules.

(8) Reporting Procedures: SMLR form 33 and appropriate map(s) shall be submitted on or before January 31 of each year. All information in SMLR 33 identified by the permittee as trade secrets and consistent with ORS 192 shall be exempt from public disclosure. Any production records, mineral assessments or trade secrets submitted as part of an application shall be confidential. SMLR-33 and appropriate map(s) shall include but not be limited to the following information:

(a) Map(s) showing completed bore and core hole locations to a degree of accuracy reasonably obtainable with a Brunton type instrument;

(b) The date each hole was completed, and abandoned;

(c) Total depth and diameter of each hole drilled;

(d) Trade name and amount of abandonment material used on each drilled hole;

(e) Viscosity (in seconds/quart) of drilling medium before and after abandonment material was added;

(f) Viscosity of abandonment material;

(g) Depth of water bearing zones as determined through use of equipment and technique normally available to exploration personnel for each hole drilled including a statement describing any flow to the surface encountered; and

(h) Location of any shaft or adits constructed during exploration.

(9) Financial Security:

(a) The applicant shall submit adequate financial security for the purpose of assuring performance of the requirements of the Exploration Permit. All land must have department approved and accepted financial security prior to disturbance. The department shall determine the amount of the financial security required by estimating the cost of reclamation if the department were to perform the reclamation. The department may accept a blanket financial security covering two or more exploration projects. The total financial security amount of the individual projects shall not exceed the amount of the blanket financial security;

(b) Factors the department will consider in determining the amount of security may include, but are not limited to, the following:

(A) Supervision;

(B) Mobilization;

(C) Costs of equipment;

(D) Equipment capability;

(E) Costs of labor;

(F) Removal or appropriate disposition of debris, junk, equipment, structures, and unwanted chemicals;

(G) Backfilling, contouring, or regarding and topsoil replacement;

(H) Draining, establishment of drainage, and erosion control;

(I) Soil tests;

(J) Seedbed preparation, seeding, mulching, fertilizing, netting, tackifiers or other stabilizing agents;

(K) Tree and shrub planting;

(L) Fencing;

(M) Liability insurance;

(N) Long-term stabilization, control, containment or disposal of waste solids and liquids;

(O) Drill hole abandonment provisions; and

(P) Adit or shaft sealing or plugging requirements.

(c) Cost estimate information shall be derived from sources such as:

(A) Comparable costs from similar projects;

(B) Catalog prices;

(C) Guides and cost estimates obtained from appropriate government and private sources;

(D) Applicant estimates;

(E) Equipment handbooks; and

(F) Qualified local contractors.

(d) Seed mixes, fertilizer rates, and other requirements will be derived from departmental experience combined with advice from appropriate sources;

(e) The security amount shall be based on the cost of reclamation. Security amounts shall not include conversion of drill holes to water wells.

(10) Fees. Maximum fees are established by statute and specific fees are set by rule.

(a) Each application for an Exploration Permit shall be accompanied by an initial application fee of \$400. Additional processing and inspection fees are anticipated only when the permittee seeks to transition the exploration activity to a mining facility or if a non-compliance is identified. For sites requiring special review or monitoring the department shall assess a processing fee sufficient to cover costs of the department in processing the application and regulating the site. The application fee must accompany the application; any balance due may be requested by the department in writing and must be submitted prior to issuance of the permit;

(b) To renew an exploration permit each permit holder shall pay an annual fee on or before the last day of the month shown on the permit as the expiration month. The annual renewal fee shall be \$300, plus the balance of any additional actual cost the department incurs from inspections or review in accordance with ORS 517.920. The annual report SMLR-33 shall be submitted to the department by January 31 of each year. As a courtesy, the Department may notify the permittee with a notice of these requirements at least 45 days prior to the due date. Failure of the permittee to pay the fee may result in the issuance of a Closure Order by the department;

(c) Application fees are not refundable. Unspent balances of processing fees are refundable;

(d) Fees may be prorated at the applicant's request. The prorated fee will be on the basis of 1/12th the annual fee per month;

(e) For sites on which a processing fee is assessed the operator shall be provided with periodic cost summaries;

(f) The department may require a lesser fee, upon completion of all reclamation, exploration, all reclamation with the exception vegetation establishment.

(11) Closure Orders and Invalidation.

(a) The department may issue a Closure Order when it finds that a permittee is conducting exploration:

(A) For which a permit is required but has not been obtained;

(B) Outside the approved permit area;

(C) That is in violation of these rules, the reclamation plan, or permit conditions; or

(D) Without having submitted the appropriate fee.

(b) The Department may refer violations of Closure Orders to the Attorney General for legal proceedings under the provisions of ORS 517.880 or to the District Attorney for prosecution according to the provisions of 517.990(3) and (4);

(c) An Exploration Permit becomes invalid after the expiration date if the annual renewal fee and annual report form have not been received by the Department or at any time, if the financial security has expired or has been canceled without replacement. Reclamation obligations incurred prior to the date of cancellation of any bond or other security continue until the site is reclaimed.

(12) Reclamation by the department.

(a) Upon a finding of abandonment, the department may perform the reclamation outlined in the reclamation plan to the extent possible, given the condition of the site when abandoned;

(b) The department may perform alternative reclamation depending on site conditions;

(c) The department may reclaim the site to:

(A) Eliminate or minimize hazards to the health and safety of the public;

(B) Eliminate or minimize any pollution or erosion;

(C) Rectify adverse affects to surface and subsurface resources; or

(D) Reach a condition compatible with local comprehensive plan and with federal and state laws.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.705, 517.710, 517.730 & 517.810

Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

632-033-0030

Department Action on an Exploration Permit Application

(1) The department shall approve or deny a complete application in writing within 30 days of receipt. If an application is incomplete, the department shall notify the applicant of that fact in writing within 30 days of receipt and the department will specify the deficiencies therein. Within 60 days of receipt of a notice of incompleteness the applicant may appeal the determination of incompleteness or may resubmit the application with deficiencies corrected. The applicant may appeal by filing a written notice in accordance with OAR 632-033-0050.

(2) The department may attach conditions to the Exploration Permit. These conditions may be added to reflect special concerns which are not adequately addressed in the reclamation or drill hole abandonment provisions and fall within the scope of these rules. The permittee may appeal these conditions by filing a written notice of appeal in accordance with OAR 632-033-0050.

(3) Inspections. As provided by ORS 517.725 the department may inspect any exploration site to determine status or compliance.

(a) Initial inspections may be conducted by the department. Reasons for the inspections include but are not limited to:

(A) Determine existing environmental conditions;

(B) Review the proposed exploration-activity;

(C) Review the proposed reclamation;

(D) Collect data to calculate a bond and;

(E) Determine if a permit is required.

(b) Annual inspections may be conducted by the Department. Reasons for such inspection include but are not limited to:

(A) Reviewing exploration permit compliance;

(B) Investigating public complaints;

(C) Evaluating the permit bond level; and

(D) Evaluating the reclamation and drill hole abandonment for bond release.

(4) The Department will notify local planning authorities and other appropriate public agencies that it has received the application for review. If the Exploration Permit cannot be reviewed and accepted or rejected by the department within 30 days after receipt the department will notify the applicant.

(5) If the department refuses to approve the Exploration Permit application for any reason, the department will notify the applicant in writing within five days of refusal stating the reasons, and including additional requirements as may be prescribed by the department for inclusion in the reclamation plan. Within 60 days after the receipt of a deficiency list or permit conditions, the applicant shall comply with the additional requirements prescribed by the department or file a written notice of appeal of the decision to the department in accordance with OAR 632-033-0050. Failure to comply with the additional requirements or file a notice of appeal within the 60-day period, unless an extension is granted by the department, shall result in the application for an Exploration Permit being denied. Informal requests for reconsideration may be submitted as provided for in 632-033-0050.

(6) The department will approve the applicant's Exploration Permit if it adequately meets the provisions of the rules.

(7) The approval of the reclamation plan and the issuance of the Exploration Permit by the department do not constitute a finding of compliance with statewide planning goals or local regulations implementing acknowledged comprehensive land use plans. The Exploration Permit may be issued prior to the local land use agency making such a determination. The permittee is responsible for obtaining local land use approval if required.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.725

Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

632-033-0035

Modification of an Exploration Permit

Modification of a permit may be initiated at any time by the permittee or by the department. An Exploration Permit may be modified by approval of the department after timely notice and opportunity for review if the Department determines that modification is needed to comply with existing laws, or to accommodate unforeseen developments which may affect the reclamation or drill hole abandonment plan as previously approved. Expansion of an operation beyond the original permit area, depth or significant intensification of activity shall require permit modification.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.740

Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

632-033-0040

Maintaining an Exploration Permit

(1) An Exploration Permit issued by the department shall be granted for a period of 12 consecutive months. The new permittee shall renew each Exploration Permit prior to the anniversary date by submitting the required annual fee. As a courtesy, the department may notify the permittee by mail at least 45 days prior to the anniversary date of the permit and will provide the necessary renewal forms and fee schedule for permit renewal. In cases of non-renewal, a second notice may be sent prior to issuance of a Closure Order. The permittee shall maintain an Exploration Permit until exploration and reclamation, including revegetation (if required), have been completed.

(2) If the department determines from inspections conducted pursuant to ORS 517.850 or from any other source, that the exploration is not in compliance with the approved Exploration Permit, permit conditions, the Mined Land Reclamation Act, or the rules adopted thereunder, the department shall give written notice of noncompliance to the permittee.

(3) The permittee must begin rectifying all deficiencies within 30 days of receipt of the notice of noncompliance as required in ORS 517.860(1), or file a written appeal to the notice of noncompliance in accordance with OAR 632-033-0050. If the permittee appeals the notice within 30 days of receipt, the Department will not issue a Closure Order or revoke the permit pending the appeal, except in cases of reasonable probability of danger to human life, property, water resources, or wildlife. The department will provide the permittee a written statement of the specific facts leading to that finding and corrective action for the elimination of such danger.

(4) The department will notify the permittee in writing within ten working days of the date verification of compliance.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.740

Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

632-033-0043

Expiration of an Exploration Permit Obligation

An Exploration Permit obligation expires upon:

- (1) Transferring of the permit to another obligee.
 - (2) The area within the permit area coming under an Operating Permit.
 - (3) Completing the obligation of the Exploration Permit.
- Stat. Auth.: ORS 517
Stats. Implemented: ORS 517.720
Hist.: GE 1-1990, f. & cert. ef. 8-3-90

632-033-0045

Obtaining Financial Security Releases

- (1) The permittee shall notify the department when the provisions of the permit have been completed.
- (2) The department shall inspect the reclaimed site. If the permittee has fulfilled the requirements of the Exploration Permit, the financial security shall be released, the permit terminated and the permittee notified. The department may authorize financial security reduction if the reclamation or drill hole abandonment procedures are partially completed or for other reasons if the financial security is greater than the anticipated obligation for the next 12 months.

Stat. Auth.: ORS 517
Stats. Implemented: ORS 517.725
Hist.: GE 1-1990, f. & cert. ef. 8-3-90

632-033-0050

Appeals

- (1) Prior to the initiation of an appeal of any departmental order pursuant to the Mined Land Reclamation Act or these rules the applicant or permittee shall first request that the State Geologist informally review and resolve the matter. The State Geologist shall provide a written decision within 20 days of receipt of such a request. Thereafter, the applicant or permittee may request a contested case hearing as provided in ORS 183.310–183.550.
- (2) An applicant or permittee requesting a contested case hearing shall state the reasons for requesting the hearing and the objections to the department's order in accordance with ORS Chapter 183 and the Attorney General's Model Rules of Procedure.

Stat. Auth.: ORS 517
Stats. Implemented: ORS 517.890
Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

632-033-0055

Penalties

- (1) Any person who conducts an exploration activity without a valid Exploration Permit as required by the Mined Land Reclamation Act shall be punished upon conviction, by a fine of not more than \$10,000.
- (2) Violation of any provision of the Mined Land Reclamation Act, or of any rule or order made pursuant to the Act, or of any conditions of an Exploration Permit, is punishable, upon conviction, by a fine of not more than \$10,000.

Stat. Auth.: ORS 517
Stats. Implemented: ORS 517.990
Hist.: GE 1-1990, f. & cert. ef. 8-3-90; DGMI 1-2000, f. & cert. ef. 7-20-00

DIVISION 35

OREGON MINED LAND RECLAMATION ACT

Applicable to Coal and Metal-Bearing Ores Operations Obtaining Permits After August 16, 1981

632-035-0005

Purpose of These Rules and Regulations

- (1) For Coal and Metal-bearing Ores these rules implement the purposes of ORS 517.750 to 517.955 and 517.990(3), (4) and (5), as declared by the Legislative Assembly:
 - (a) To provide that the usefulness, productivity and scenic values of all lands and water resources affected by surface and underground mining within this state receive the greatest practical degree of protection and reclamation necessary for their intended subsequent use;
 - (b) To provide for cooperation between private and governmental entities in carrying out the purposes of ORS 517.750 to 517.955 and 517.990(3), (4) and (5).
- (2) These rules prescribe procedures for obtaining an Operating Permit and for complying with the other requirements of the Oregon Mined Land Reclamation Act: ORS 517.750 to 517.955 as amended and subsections (3), (4), (5) and (6) of 517.990.
- (3) Applicants seeking Operating Permits from the Department should be aware that other state, federal and local agencies may require

the applicant to obtain approval prior to operation. For example, the Department of Environmental Quality (DEQ) may require contaminant discharge permits for air, waste water and solid waste disposal. Where feasible the Department shall coordinate with other agencies to avoid duplication on the part of applicants. An Operating Permit from the Department does not constitute authorization to proceed without approval of other agencies if required. It is the applicant's responsibility to obtain other necessary permits.

Stat. Auth.: ORS 517
Stats. Implemented: ORS 517.517, 517.760 & 517.905
Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0010

Definitions

The definitions in ORS 517.750 apply to these regulations:

- (1) "Affected," as used in ORS 517.750(13)(a), means the disturbance by excavation or any other surface mining or milling on any land surface during any stage of mineral production, or the covering of any land surface by surface mining refuse.
- (2) A "Period of 12 Consecutive Calendar Months" as used in ORS 517.750(13)(a) begins on the date surface mining begins.
- (3) "Board" means the Governing Board of the State Department of Geology and Mineral Industries.
- (4) "Chemical Processing Bond or Other Approved Security" is the bond or other approved security an operation capable of chemically leaching more than 5,000 cubic yards/year of material shall post. The bond shall be posted in an amount not less than \$25,000 or more than \$500,000 and shall be applied specifically to the reclamation procedures associated with the credible accident or decommissioning of an ore processing facility.
- (5) "Closure Order" is a written notice from the Department requiring the operator to cease and desist from mining or processing mined material at the site described in the written notice.
- (6) "Credible Accident" is defined as an unplanned discharge of ore processing solutions, ore processing solution contaminated water, or chemicals from a mine facility into the surface water, ground water, soil, overburden, or living resources in sufficient quantities to impair the existing quality or pre-mine use of the receiving water, soil, overburden, or living resources which would exceed the discharge standards of DEQ.
- (7) "Department" means the Department of Geology and Mineral Industries.
- (8) "Disturbed Area" is any area within the permit area boundary where surface or ground water resources are impacted as a result of mining, milling or mine facilities.
- (9) "Expansion" as used in these rules means lateral expansion consequential to surface mining into land surfaces previously not affected by surface mining.
- (10) "Limited Exemption" means surface mining which although not entitled to a "total exemption" is eligible for certain grandfather rights under ORS 517.770 and operates under a limited exemption certificate issued by the Department.
- (11) "Mine Facilities" as used here includes but is not limited to the following:
 - (a) Leach pads and vats;
 - (b) Recovery plants or mill;
 - (c) Process solution ponds and storage ponds;
 - (d) Impoundments and diversions;
 - (e) Tailing disposal facility.
- (12) "Nonaggregate Minerals" means coal and metal-bearing ores, including but not limited to ores that contain or are purported to contain nickel, cobalt, lead, zinc, gold, molybdenum, uranium, silver, aluminum, chromium, copper or mercury.
- (13) "Operating Permit" is the permit issued by the Department that allows for the mining and processing of coal and metal-bearing ores as described in ORS 517.790 and provides for reclamation as specified in ORS 517.705(11).
- (14) "Ore Processing" means milling, heap leaching, flotation, or other mineral concentration process.
- (15) "Ore Processing Solutions" are defined as those solutions which are used directly or indirectly to recover minerals.
- (16) "Permit Area" is the area of surface mining and exploration as defined in ORS 517.750(13). Permit area is defined by boundaries submitted on a map acceptable to the Department and means the area to be covered by an Operating Permit. The permit area will generally be a contiguous parcel or parcels which are available to the permittee for surface

mining. Areas used for the storage or disposition of any product or waste material from the surface mining operation even though separate from the area of extraction shall be included in the permit area. The permit area may be redefined as mining progresses. In the case of exploration, the permit area includes, but is not limited to, areas proposed for surface disturbance by drilling, drill pad construction, trenches and any roads newly constructed or improved with heavy equipment other than the road used to access the permit area.

(17) "Pre-Mine Use" when used in reference to surface or ground water means pre-mine uses that include but are not limited to:

- (a) Drinking water;
- (b) Fishery;
- (c) Agriculture;
- (d) Recreation.

(18) "Prospecting" and/or "Exploration" means all activities conducted on or beneath the earth's surface for the purpose of determining presence, location, extent, depth, grade, or economic viability of a deposit.

(19) "Reclamation" means the employment in surface mining of procedures reasonably designed to minimize as much as practicable the disruption from surface mining and to provide for the rehabilitation of any surface resources through the use of plant cover, soil stability techniques, and through the use of measures to protect the surface and sub-surface water resources, including but not limited to domestic water use and agricultural water use, and other measures appropriate to the subsequent beneficial use of such mined and reclaimed lands.

(20) "Surface Mined Prior to July 1, 1972" means land affected by surface mining before July 1, 1972 which has not been adequately reclaimed.

(21) "Surface Mined Prior to January 1, 1981" means land affected by surface mining, milling or ore processing before January 1, 1981 under the provisions of the valid contract clause of ORS 517.770(1)(c) has not been adequately reclaimed.

(22) "Total Exemption" means surface mining that is exempted from the requirements of these rules. The Department may require certain information to be provided under OAR 632-035-0016(2) to establish exemptions.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.910

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0015

General Information

(1) Information Requirements. The Department may require any information needed to determine the status of any surface mining. Proprietary information includes but is not limited to trade secrets, business records and production figures, and shall be held confidential. Information concerning ownership, location, and the identity of the operator are matters of public record as are actions taken by the Department with regard to any mining operation or permit application.

(2) Inspections. As provided by ORS 517.850 the Department may, after reasonable notice, inspect any surface mining site to determine status or compliance. The Department will report the results of these inspections to the permittee in writing.

(a) Initial inspections shall be conducted by the Department. Reasons for the inspections include but are not limited to:

- (A) Determining existing environmental conditions;
- (B) Reviewing the proposed mine operation;
- (C) Reviewing the proposed reclamation plan;
- (D) Collecting data to calculate a bond;
- (E) Monitoring the construction of facilities.

(b) Annual and non-scheduled inspections may be conducted by the Department. Reasons for the inspection include but are not limited to:

- (A) Reviewing operating permit compliance;
- (B) Investigating public complaints;
- (C) Evaluating the site bond level.

(3) County Authority:

(a) The Department shall recognize permits issued under county ordinances in lieu of permits required by these rules if such county ordinances have been approved by the Board before July 1, 1984. The Board may approve a county ordinance provided the ordinance meets the administrative and reclamation standards contained in ORS 517.750-517.955 and 517.990(3), (4), (5) and (6), and these rules, and provision is made for the reclamation to be secured by an adequate reclamation bond or alternate security. Examination for approval of proposed

county ordinances shall include, but is not limited to, the following criteria:

(A) Fully qualified professional personnel to administer the ordinance;

(B) Circulation for review of all applications and supporting documents to all appropriate natural resource public agencies, including the Department;

(C) Provision for completed processing and issuance of permits in the same or less time as the state;

(D) Provision for annual field inspections and for preparation and maintenance of permanent records and reports;

(E) Provision for prior mined (grandfathered) sites as provided in state law;

(F) Provision for regulation of expansion (as defined in OAR 632-035-0010(5)) of grandfathered sites;

(G) Adoption of criteria regarding final slopes and water depths contained in these rules and regulations;

(H) Provision for bonding or adequate alternate security;

(I) Provision for confidentiality of information as provided for in state law;

(J) A statement of penalties;

(K) A complete mined land reclamation document which does not require reference to other documents for compliance and which is free standing and not merely a part of a zoning ordinance;

(L) Provision to assume administration of all surface mining within the local agency's jurisdiction except municipalities within the county unless the city consents thereto as provided in ORS 517.780(2). Sites for which authority is not assumed, such as those on federal land, should be clearly exempted and left in state jurisdiction within the language of the ordinance. On those lands for which the county proposes to assume authority, the county must provide for reclamation of all categories of surface mining regulated under state law;

(M) Provision for incorporation of future changes of the state law into the local ordinance;

(N) Provision for review by the Board of future proposed changes in the local ordinance;

(O) Description of transition mechanism for transfer from state to county or city authority shall be provided for either in the ordinance or in a memorandum of understanding.

(b) The Board may rescind approval of a county ordinance if the county does not enforce its ordinance as approved by the Board or at the request of the county. When the Board recognizes county authority to issue surface mining permits in lieu of the permit required by these rules, the county will provide the Department with copies of all such applications, permits, denials, reclamation plans, and inspection reports. The Department may inspect those sites after giving reasonable notice to the operator and appropriate county authority;

(c) Umatilla and Clackamas counties may continue to operate their own reclamation programs as long as they maintain the standards specified in their approved ordinances. Changes to the reclamation ordinances in those counties must be approved by the Board. Changes to the reclamation ordinances must be consistent with state law and must be submitted to the Board for approval. Routine audits of the county programs shall be conducted by the Department to ensure compliance with state laws, rules, and county ordinances. Any deficiencies noted during the audit will be given in writing to the county along with a reasonable date to reach compliance. Authorization will be withdrawn by the Board if a county fails to maintain an adequate reclamation program.

(4) Surface mining on Federal Lands. Surface mining conducted on federal lands, is subject to ORS 517.750-517.990(3), (4) and (5) and these rules. The Department shall coordinate with agencies of the federal government to minimize conflict or duplication in operating, reclamation and security requirements. The Board may enter into formal agreements with federal agencies to establish the means by which these rules are carried out.

(5) Fees. Maximum fees are established by law and specific fees are set by the Department.

(a) Each application for an Operating Permit or Limited Exemption Certificate for coal or metal-bearing ores shall be accompanied by an application fee equal to that specified under ORS 517.800. For sites requiring special review and monitoring the Department shall assess a processing fee sufficient to cover costs of the department in processing the application and regulating the site annually, as determined by the department. The application fee from 517.800 must accompany the appli-

cation; any balance due will be requested by the department in writing and must be submitted prior to issuance of the permit;

(b) Each permit and certificate holder shall pay an annual fee on or before the last day of the month shown on the permit as the anniversary month. The annual fee shall be in accordance with ORS 517.800(2), plus the balance of any additional actual cost the Department incurs from inspections or review in accordance with 517.920. The annual report form (SMLR-7) must be submitted to the Department by the last day of the anniversary month. As a courtesy, the Department may notify the permittee with a notice of these requirements at least 45 days prior to the due date. Failure of the permittee to pay the fee may result in the issuance of a Closure Order by the Department;

(c) Application fees are not refundable. Unspent balances of processing fees are refundable;

(d) Fees may be prorated at the applicant's request in order to adjust the anniversary date. The prorated fee will be on the basis of 1/12th the annual fee per month;

(e) For sites on which a processing fee is assessed a specific cost center for accounting purposes shall be established and the operator shall be provided with periodic cost summaries;

(f) The Department may require a lesser fee, upon completion of all reclamation, with the exception of vegetation establishment, per the approved Operating Permit.

(6) Closure Orders and Invalidation.

(a) The Department may issue a Closure Order when it finds that an operator is conducting surface mining:

(A) For which a permit is required but has not been obtained;

(B) Where a site has expanded outside the approved permit area without approval by the Department; or

(C) That is in violation of ORS 517.750–571.900, and the rules adopted thereunder, the reclamation plan, or permit conditions;

(D) Without having submitted the annual fee. The Department may refer violations of Closure Orders to the Attorney General for legal proceedings under the provisions of ORS 517.880 or to the District Attorney for prosecution according to the provisions of 517.990(3) and (4).

(b) An Operating Permit becomes invalid upon the anniversary date if the fee and annual report form have not been received by the Department, or at any time if any bond or alternate security has expired, or has been cancelled without replacement. Reclamation obligations incurred prior to the date of cancellation of any bond or other security continue until the site is reclaimed;

(c) A Limited Exemption Certificate becomes invalid upon the expiration date if renewal has not been made.

(7) Reclamation by the Department:

(a) Upon a finding of abandonment, the Department may perform the reclamation outlined in the reclamation plan to the extent possible, given the condition of the site when abandoned. The Department may perform alternative reclamation depending on site conditions. For example, the Department shall not construct a lake if the excavation has not reached the watertable; the Department shall not complete a proposed housing development;

(b) The Department may reclaim the site to:

(A) Eliminate or minimize hazards to the health and safety of the public;

(B) Eliminate or minimize any pollution or erosion;

(C) Rectify abuses of natural resources, including fish and wildlife habitat and restoring drainage;

(D) Reach a condition compatible with local comprehensive plan and with federal and state laws.

(8) Applicability of laws and rules.

(9) Permittees, at all times during the terms of the permit, are subject to the provisions of statutes and rules in effect at that time.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.775, 517.800, 517.850 & 517.920

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0016

Total Exemptions

(1) The following excavation, processing or grading activities are exempt from these rules and do not require the payment of fees, posting of bonds or submittal of reclamation plans:

(a) Beds and Banks. Excavations of materials from the beds and banks of any waters of this state are exempt from these rules when conducted pursuant to a permit issued under ORS 541.605 to 541.625 and 541.627 to 541.660;

(b) Operations producing less than 5,000 cubic yards of material per year and disturbing less than one acre of land are exempt from these rules but may require a permit from DEQ and other government agencies;

(c) Exploration. Mineral exploration activities are exempt until the cumulative area affected by one operation exceeds one of the following:

(A) More than one acre within any eight contiguous acres explored including road construction;

(B) A total of five acres is disturbed;

(C) More than one contiguous acre per year is affected;

(D) More than 5,000 cubic yards of material is extracted or processed per year, or the site has the capacity to process more than 5,000 cubic yards per year.

(d) Surface effects, created by underground mining prior to October 1, 1983, which have not been reclaimed.

(2) Applications for a total exemption certificate if desired shall be made to the Department using the established form. The Department may require the applicant claiming this exemption to provide data to establish the validity of the exemption. The data required may include but is not limited to, the name of the operator, location of the surface mine, size of the site, date of commencement of the surface mining, a summary of the previous 12 months' surface mining, and an estimate of the activity for the succeeding 12 months.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.750

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1986, f. 9-19-86, ef. 9-22-86; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0017

Limited Exemptions

(1) Limited exempt status is applicable to land surfaces which were affected by surface mining before July 1, 1972, and which are not reclaimed.

(2) To receive a Limited Exemption Certificate the applicant must:

(a) Submit the appropriate application form and fee;

(b) Document with aerial photographs or other acceptable information that the site was affected by surface mining before July 1, 1972;

(c) Demonstrate that the site has not stabilized to the point where it is at least revegetated to 50 percent of original cover, when compared to adjacent lands, or has not reverted to any beneficial use such as wildlife habitat or grazing.

(3) The Department will review each request and make a determination based on the documentation provided, and on-site inspection, if necessary. If it refuses to approve the application for a limited exemption certificate, the Department will notify the applicant in writing specifying the reasons for the refusal and giving the applicant opportunity to supply additional documentation to support the application.

(4) The holder of a limited exemption certificate must renew the limited exemption certificate annually by submitting the renewal form and fee before the certificate expires. As a courtesy the Department will notify the holder that the certificate is due for renewal by mailing the necessary renewal form and fee schedule at least 45 days before the renewal date. The Department may request information to determine continued eligibility.

(5) Expansion of surface mining under limited exempt status into previously unmined land, which exceeds 5,000 cubic yards per year of material disturbed or more than one acre affected in any period of 12 consecutive months, requires an Operating Permit. Any land mined under a valid Limited Exemption Certificate is exempt from the bonding and reclamation requirements for the life of the mine. An Operating Permit must be obtained before any expansion occurs. Expansion of a site before an Operating Permit is issued constitutes surface mining without a permit and is prohibited by ORS 517.790.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.770 & 517.775

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0020

Procedures for Applying for an Operating Permit

Obtaining an Operating Permit:

(1) The applicant shall submit an Operating Permit application as defined in OAR 632-035-0025 including a map acceptable to the Department which delineates the proposed permit area.

(2) The application for an Operating Permit shall be accompanied by the fee authorized in ORS 517.800 and 517.920 and determined by the Department. The balance of the actual cost or processing the application, if any, shall be submitted prior to issuance of the permit.

Stat. Auth.: ORS 517
 Stats. Implemented: ORS 517.790
 Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0025

Requirements for an Operating Permit Application

(1) Prior to initiating any permitting action the applicant is encouraged to meet with the Department and with the Department of Environmental Quality (DEQ) for conceptual understanding and coordination of plans of study, baseline data collection and the permit application process. Division 35 rules do not apply to recycling or non-mining related facilities. These rules do apply to mine areas with ore processing facilities at or removed from the mine site, and apply to monitoring facilities. The Department shall closely coordinate its permit requirements with DEQ so as to avoid duplication of effort and unnecessary delay. All waste water treatment and/or pollution control systems require DEQ permitting.

(2) An Operating Permit application shall contain five sections. Those sections are:

- (I) Existing Environment.
- (II) General Information.
- (III) Operating Plan.
- (IV) Reclamation Plan.
- (V) Bonding.

(a) Existing Environment:

(A) The Department may require environmental baseline information including characterization of the following:

- (i) Vegetation;
- (ii) Soil/overburden;
- (iii) Climate/air quality;
- (iv) Fish and aquatic biology*;
- (v) Wildlife* (terrestrial, avian);
- (vi) Surface and ground water;
- (vii) Area seismicity;
- (viii) Geology and geographic hazards;
- (ix) Mineralogy and chemistry;
- (x) Noise.

NOTE: *These characterizations may be necessary for determinations by the Oregon Department of Fish and Wildlife.

(B) Other state and federal agencies may have similar baseline requirements. Where possible the Department shall coordinate with agencies that have similar baseline needs in order to avoid duplication for the applicant;

(C) The level of detail required for in paragraph (2)(a)(A)(i)–(ix) of this rule may vary depending on location, size, scope, and type of mining operation. The applicant should contact the Department prior to baseline data collection to determine the level of detail necessary for the applicant's proposal.

(b) General Information:

(A) The name(s) and address(es) of all owners of the surface estate and mineral estate;

(B) The legal structure (e.g., corporation, partnership, individual) of the applicant;

(C) The name and mailing address of the facility for correspondence;

(D) The name and mailing address of the applicant's resident agent;

(E) The proposed starting date and expected life of the proposed operation;

(F) A description of the present land use and the proposed post-mine use of the site following mining. The proposed post-mine use must be compatible with the local comprehensive plan as determined by local land use planning agencies;

(G) Maps, aerial photographs or design drawings of appropriate scale may be required by the Department. Information that typically may be required on maps, aerial photographs or design drawings includes but is not limited to:

- (i) Permit area boundary;
- (ii) Mine location;
- (iii) Waste rock or overburden stockpiles;
- (iv) Processing facilities location;
- (v) Ancillary facilities location;
- (vi) Topsoil stockpile locations;
- (viii) Typical cross sections;
- (ix) Plan views and profiles;
- (x) Existing watercourses and ponds;
- (xi) Interim watercourses and ponds;

(xii) Reconstructed watercourses and ponds;

(xiii) Post-mining topography;

(xiv) Property lines;

(xv) General orebody location.

(H) The applicant should contact the Department for recommendations regarding scale and amount of detail required. The applicant may be required to submit extra copies of materials to be circulated to other agencies;

(I) Written evidence that the surface estate and mineral estate owners concur with the reclamation plan and the proposed use after reclamation and that they will allow the Department access to complete reclamation within the permit area if the permittee fails to comply with the approved reclamation plan. If the applicant can document a legal right to mine without consent of the surface estate owner, and the applicant can assure the Department will have a right to enter upon the permit area to complete the reclamation within the permit area if the permittee fails to complete the approved reclamation, the Department may issue an Operating Permit.

(c) Operation Plan. The Department may require the following in an operating plan:

(A) A detailed description of the proposed mining methods;

(B) A general list of equipment required for operation;

(C) A general schedule of construction and operation starting with the beginning of construction and ending with the completion of mining;

(D) General design assumptions plus plans profile, typical cross sections and capacities for mine facilities including but not limited to:

- (i) Leach pads;
- (ii) Impoundments;
- (iii) Ponds;
- (iv) Diversion systems;
- (v) Disposal systems;
- (vi) Stockpiles and dumps;
- (vii) Pits;
- (viii) Tailing disposal facilities.

(E) When appropriate, mine facilities must be designed conceptually as zero discharge/leak facilities. Leaching facility design and construction materials are at the discretion of the applicant. A coefficient of permeability for facilities shall be agreed to by the applicant, DEQ and the Department prior to construction. The applicant must provide for the conservation of the pre-mine quantity and maintenance of the pre-mine quality of the surface and ground water resource so as not to degrade the pre-mine use. Any discharge of ore processing solutions off-site would be required to meet DEQ discharge permit standards;

(F) A water budget analysis including but not limited to:

- (i) Precipitation/evaporation data;
- (ii) Make-up water needs;
- (iii) Make-up water source;

(iv) procedures to dispose of precipitation water in excess of designed capacities to include but not be limited to solution treatment facilities or proposed irrigation strategies. This section should be coordinated with procedures for seasonal closure and decommissioning of the operation;

(v) Surface water runoff determination for the watershed containing the mine operation;

(vi) As a minimum, projects shall be designed to handle the 100-year, 24-hour precipitation event.

(G) Seasonal closure procedures if applicable including but not limited to:

- (i) Target seasonal storage volumes;
- (ii) Total system storage capacity;
- (iii) Procedures to handle volumes of water in excess of seasonal storage capacities;
- (iv) Estimated target dates for closure.

(H) Credible accident contingency plan including but not limited to:

- (i) Accidental discharge scenarios;
- (ii) Immediate response strategy;
- (iii) Procedures to mitigate impacts to ground water;
- (iv) Procedures to mitigate impacts to surface water;
- (v) Procedures to mitigate impacts to soil/overburden;
- (vi) Procedures to mitigate impacts to living resources;
- (vii) Notification procedures;
- (viii) Chemical constituents representative of ore processing solution.

(I) Operational monitoring programs including but not limited to, surface and ground water monitoring systems within and outside the permit boundary, water balance of the process system and leak detection systems. Monitoring may be required after cessation of mining or milling operations to insure compliance with decommissioning performance standards;

(J) Surface water management procedures to provide for protection against contamination of ground water and the off-site discharge of sediments into adjacent waterways;

(K) Stable storage of overburden. A vegetative cover of overburden stockpiles may be required to prevent erosion of the overburden storage or spoils area;

(L) Isolation and stable storage of the topsoil or equivalent growth media material maintained for use in revegetation;

(M) Stable storage of mine dumps. The pre-dump topography, ground preparation, method of emplacement of dump material, height of lifts, total height and final slopes shall be described. The department may require design and review by a registered professional engineer or certified engineering geologist;

(N) Stable storage of mill tailings. Plans and specifications of all dams or impoundments proposed to be constructed for the purpose of storing mill tailings or other materials consequent to the mining and milling operation may be required by the Department to be prepared by a registered professional engineer or certified engineering geologist. Plans shall be reviewed by the Department and other regulatory agencies. Construction of such dams may be required to be reviewed by a registered professional engineer. Procedures to prevent pollution of air, water, and land shall be described. Depending upon the commodity to be mined, tailings impoundments must meet various requirements of the Department of Environmental Quality, the Health Division of the Department of Human Resources, the Department of Fish & Wildlife, the Oregon Department of Energy Department of Water Resources, Army Corps of Engineers and the U.S. Nuclear Regulatory Commission. Details on how each tailings disposal facility will be reclaimed must be submitted;

(O) Stable storage of mined ore. Plans and specifications prepared by a registered professional engineer or certified engineering geologist of all ore storage facilities may be required by the Department. Storage facilities as used here include but are not limited to stored ore on reusable leach pads, stored ore on permanent leach pads, ore stockpiles, storage bins and silos;

(P) Subsidence Control Plan for Underground Mines.

(i) At the discretion of the Department an application for underground mining activities must include an inventory which shows whether structures, renewable or nonrenewable resources, or water resources exist within the proposed permit area and adjacent area and whether subsidence might cause material damage to, or diminution of reasonably foreseeable uses of the structures, or renewable or nonrenewable resources, or water resources;

(ii) If the Department finds, after reviewing the survey, that no structure or renewable or nonrenewable resources exists or no material damage or diminution could be caused in the event of mine subsidence, no further information need be provided under this subsection;

(iii) If the Department finds, after reviewing the survey, that any structure, renewable or nonrenewable resources, or water resources exist and that subsidence could cause material damage or diminution of value of foreseeable use of the land, then the applicant shall submit a subsidence control plan which contains:

(I) A detailed description of all proposed methods of operation which may cause subsidence, including:

(I-a) The technique of ore removal; and

(II-b) The extent, if any, to which planned and controlled subsidence is intended.

(II) A detailed description of the measures to be taken to prevent subsidence from causing material damage or lessening the value or reasonably foreseeable use of the surface including:

(I-a) The anticipated effects of planned subsidence, if any;

(II-b) Measures to be taken in the mine to reduce the likelihood of subsidence; and

(III) Measures to be taken on the surface to prevent material damage or lessening of the value or reasonably foreseeable use of the surface;

(IV) A detailed description of measures to be taken to determine the degree of material damage or diminution of value or foreseeable use of the surface, including measures such as:

(IV-a) The results of presubsidence surveys of all structures and surface features which might be materially damaged by subsidence; and

(IV-b) Monitoring, if any, proposed to measure deformations near specified structures or features or otherwise as appropriate for the operations.

(Q) A list and procedures for the handling and storage of any chemicals, acid-forming materials or radioactive material generated from or required for mining or processing at the proposed operation;

(R) Prior to operation, a signed registered engineer's or certified engineering geologist's report, complete with an accurate drawings and specifications depicting the actual construction shall be submitted. It shall be submitted by the permittee to the Department within 30 days after the completion of the construction. Alternatively, if the construction proceeded in substantial compliance with the approved plans and specifications, a statement to that effect may be submitted by the registered professional engineer or certified engineering geologist. In either case, specific provisions shall be made for agency inspection during construction or installation of mine facilities.

(d) Reclamation Plan. The Department may require the following in a reclamation plan:

(A) Provisions for recontouring, stabilization and/or topsoil replacement of all disturbed areas;

(B) Provisions for the revegetation of all disturbed areas consistent with future use. This shall include seedbed preparation, mulching, fertilizing, species selection, plus seeding or planting rates and schedules. The Department shall, in most instances, consider revegetation successful if it is comparable in stability and utility to adjacent analogous areas. In arid or semi-arid regions, the Department may allow three years of growth prior to evaluation of revegetation. Otherwise revegetation will be evaluated after one growing season. Vegetation test plots and chemical/physical soil and subsoil analysis may be required to ensure establishment feasibility. If applicable the applicant must include a plan for the control of noxious weeds;

(C) Provisions for protection of public health and safety;

(D) Provisions specifying adequate setbacks;

(E) Procedures for all stream channels and stream banks to be rehabilitated so as to minimize bank erosion, channel scour, and siltation. Disturbance within the beds and banks of streams may require a permit from the Division of State Lands;

(F) The Department may require the applicant to provide for the prevention of stagnant water;

(G) Final slopes shall be stable;

(H) Reclaimed cutbanks shall not have slopes exceeding 1-1/2 horizontal to 1 vertical (1-1/2:1). The Department may grant exceptions for steeper slopes when the applicant can document that the slopes will be stable and if the steeper slopes:

(i) Blend into adjacent terrain features; or

(ii) Existed prior to mining; or

(iii) Are consistent with approved subsequent beneficial use.

(I) Fill slopes shall be 2:1 or flatter unless steeper slopes are approved by the Department. Technical data supporting steeper slope stability may be required by the Department;

(J) Procedures for the salvage, storage and replacement of topsoil or acceptable substitute;

(K) Provisions for the establishment of 3:1 in-water slopes to six feet below water level for permanent water impoundments. Reasonable alternatives may be approved by the Department when they are consistent with the reclamation plan. For example, safety benches no more than two feet below low water level and five feet wide may be substituted for the slope requirement where the Department determines that sloping is not practical;

(L) Visual screening of the proposed operation may be required, if economically practical, when the operating area is visible from a public highway or residential area. Techniques for visual screening include, but are not limited to, vegetation, fencing or berms;

(M) Procedures for the removal or disposal of all equipment, refuse, structures and foundations from the permit area. Permanent structures may remain if they are part of an approved reclamation plan;

(N) Provisions to maintain access to utilities when a utility company right-of-way exists;

(O) Procedures or information for decommissioning mine facilities including but not limited to:

(i) Procedures for ore storage sites to meet decommissioning performance standards for protection of surface and ground water quality and living resources and to achieve revegetation requirements;

(ii) Procedures for tailing disposal facility to meet decommissioning performance standards for long-term stability, protection of surface and ground water quality and living resources and provide for attainment of site land use objectives;

(iii) Procedures for solutions to meet decommissioning performance standards for discharge, containment and evaporation, or other ultimate disposal methods;

(iv) Removal of all process chemicals;

(v) Appropriate isolation or removal of waste material;

(vi) Monitoring system by which the success of the proposed reclamation can be measured for bond release;

(vii) Performance standards for spent ore leachate shall be established by DEQ unless the applicant can demonstrate to DEQ the limits cannot be achieved practicably. Demonstration can be laboratory trials or field evaluations.

(e) Financial Security:

(A) The applicant shall submit a permit bond or other adequate security deposit for the purpose of assuring completion of the reclamation plan, other requirements of ORS 517.750 to 517.955, and all rules and permit conditions. The financial security amount shall be determined and transmitted to the operator after comments by reviewing agencies on the proposed reclamation plan have been received and evaluated. All land shall have department approved and accepted financial security prior to disturbance. The Department must determine the amount of the bond or other security required by estimating the cost of reclamation if the Department were to perform the reclamation;

(B) Factors the Department will consider in determining the amount of security may include, but are not limited to, the following:

(i) Supervision;

(ii) Mobilization;

(iii) Costs of equipment;

(iv) Equipment capability;

(v) Costs of labor;

(vi) Removal or disposition of debris, junk, equipment, structures, foundations and unwanted chemicals;

(vii) Reduction of hazards such as: in-water slopes, highwalls, and landslides or other mass failure;

(viii) Disposition of oversize, rejects, scalplings, and overburden;

(ix) Backfilling, contouring or regrading and topsoil replacement;

(x) Draining, establishment of drainage, and erosion control;

(xi) Soil tests;

(xii) Seedbed preparation, seeding, mulching, fertilizing, netting, tackifiers or other stabilizing agents;

(xiii) Tree and shrub planting;

(xiv) Fencing;

(xv) Liability insurance;

(xvi) Long-term stabilization, control, containment or disposal of waste solids and liquids;

(xvii) Final engineering design;

(xviii) Costs of remedial measures identified to clean up releases of contaminants associated with mining, processing or beneficiation that are reasonably likely to cause a threat to public health safety of the environment.

(C) Cost estimate information shall be derived from sources such as:

(i) Comparable costs from similar projects;

(ii) Catalog prices;

(iii) Guides and Cost estimates obtained from appropriate government and private sources;

(iv) Operator estimates;

(v) Equipment handbooks;

(D) Seedmixes, fertilizer rates, and other requirements will be derived from departmental experience combined with advice from such sources as the Oregon Department of Agriculture, Soil Conservation Service, Oregon State University Extension Service, the Department of Transportation, the Bureau of Land Management or United States Forest Service and private sector experts;

(E) The security amount shall be based on the cost of reclamation at the time of an inspection plus the predicted disturbance within the next 12 months. Security amounts shall not include construction of structures or comparable features such as housing developments or industrial construction even if included in a reclamation plan;

(F) The department, in consultation with the DEQ, shall make a determination of whether a threat to public health or the environment is reasonably likely to exist from a concentration of metals or minerals

resulting from mining, processing or beneficiation at the proposed project. If such a threat exists, the department may set the bond at \$100,000 per acre or the actual cost of reclamation, whichever amount is lower. The determination of whether a particular metal or mineral is reasonably likely to cause a threat to public health or the environment shall be based on project specific baseline data and consider factors including but not limited to:

(i) The specific metal or mineral;

(ii) Weathering characteristics;

(iii) Mobility;

(iv) Redox equilibrium relationships;

(v) Toxicity characteristics;

(vi) Design of the disposal site;

(vii) Pathways;

(viii) Receptors.

(G) In addition to the financial security required for the mine site, applicants having the capacity to cyanide leach or chemically process more than 5,000 yards of minerals per year shall post a chemical processing bond or appropriate security in an amount not less than \$25,000 and not more than \$500,000. The Chemical Processing Bond or appropriate security may only be used by the Department for the detoxification or disposal of solutions used in ore processing or for the detoxification or restoration of soil, overburden, surface or ground water or living resources contaminated by ore processing solutions, on or off the permit area;

(H) The Department shall consider the following factors in determining the amount of security required for the Chemical Processing Bond:

(i) The estimated cost of detoxification or disposal of ore processing solutions and solution contaminated ore so as to meet the performance standards for reclamation approved for the operation in the Operating Permit issued by the Department;

(ii) The estimated cost of restoration of contaminated soil, surface and ground water or living resources within the performance standards should an accident occur at the site;

(iii) The estimated cost of removal and/or disposal of chemicals used on site;

(iv) The operator's credible accident contingency plan;

(v) Estimated agency contracted service expenses including but not limited to supervision, mobilization, labor and equipment needs of the agency for decontamination and restoration should the agency be required to perform such restoration.

(I) The amount of bond or other security may be reduced upon completion of ore processing and decontamination, provided documentation substantiates the reduction of risk to the environment. Some amount of the bond of other security, not less than \$25,000, shall be maintained through any post closure monitoring which may be required;

(J) Chemical Processing Bond or Other Approved Security release standards and schedules for any specific site shall be established in consultation with the DEQ prior to operation;

(K) The applicant may be required to submit reclamation/decommissioning cost estimates and/or estimated costs for mitigation, reclamation and/or disposal associated with a credible accident for consideration by the Department;

(L) No permit shall be issued or renewed until all financial security for a surface mining site is on file with the Department permit bonds or other securities must be maintained until operations have ceased, reclamation has been completed, and all decommissioning performance standards have been met. The permit bonds, security deposit assignments, letters of credit or other security as authorized by ORS 517.810. Permit bonds must be U.S. Treasury listed, provided by surety companies authorized to do business in Oregon and acceptable to the department. A security submitted for multiple surface mining sites under the provisions of ORS 517.810(4) must be accompanied by a list showing the permits covered by the security, the amount of the bond applicable to each surface mining site, and the number of acres bonded at each site.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.810, 517.870, 517.890, 517.915 & 517.950

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1986, f. 9-19-86, ef. 9-22-86; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88; GMI 3-1990, f. & cert. ef. 8-9-90

632-035-0030

Department Action on Operating Permit Application

(1) The Department shall approve or deny a complete application in writing within 120 days of receipt. If an application is incomplete, the Department shall notify the applicant of that fact in writing within 30

days of receipt and the Department will specify the deficiencies therein. Within 60 days of receipt of a notice of incompleteness the applicant may appeal the determination of incompleteness or may resubmit the application with deficiencies corrected.

(2) The Department will submit the Operating Permit to local planning authorities and other appropriate public agencies for review. If the Operating Permit cannot be reviewed and accepted or rejected by the Department within 120 days after receipt the Department will notify the applicant.

(3) If the Department refuses to approve the Operating Permit for any reason, the department will notify the applicant in writing within five days of refusal stating the reasons for and including additional requirements as may be prescribed by the department for inclusion in the reclamation plan. Within 60 days after the receipt of a deficiency list or permit conditions, the applicant shall comply with the additional requirements prescribed by the Department or file a written notice of appeal of the decision to the Department in accordance with OAR 632-035-0056. Failure to comply with the additional requirements or file a notice of appeal within the 60 day period, unless an extension is granted by the Department, shall result in the application for an Operating Permit being denied. Informal requests for reconsideration may be submitted as provided for in 632-035-0056.

(4)(a) The Department will approve the applicant's Operating Permit if it adequately provides for reclamation of surface mined lands as required by these rules;

(b) If the Department finds that reclamation cannot be accomplished it shall not issue an Operating Permit. The applicant shall be notified in writing within five days of the decision.

(5) The Department may attach conditions to the Operating Permit. These conditions may be added to reflect special concerns which are not adequately addressed in the reclamation plan and fall within the scope of these rules. The permittee may appeal these conditions by filing a written notice of appeal in accordance with OAR 632-035-0056.

(6) The approval of the reclamation plan and the issuance of the Operating Permit by the Department do not constitute a finding of compliance with statewide planning goals or local regulations implementing acknowledged comprehensive land use plans. The Operating Permit may be issued prior to the local land use agency making such a determination. The permittee is responsible for obtaining local land use approval before commencing the proposed surface mining activity. When issuing the permit, the Department will inform the permittee that:

(a) Issuance of the Operating Permit is not a finding of compliance with the Statewide Planning Goals (ORS 197.225) or the acknowledged comprehensive plan; and

(b) The applicant is responsible for compliance with the requirements of all other agencies including land use determination by local government and compliance with the Statewide Planning Goals before commencing surface mining under the approved Operating Permit.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.740, 517.810 & 517.925

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0035

Modification of an Operating Permit

Modification may be initiated at any time by the permittee or by the Department. An Operating Permit may be modified by approval of the Department after timely notice and opportunity for review as provided by ORS 517.830(4) in order to modify the requirements so that they comply with existing laws, or to accommodate unforeseen developments which may affect the reclamation plan as previously approved. Expansion of an operation beyond original permit area or significant intensification of activity may require recirculation to interested agencies for additional comment.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.740 & 517.800

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0040

Maintaining an Operation Permit

(1) As provided by ORS 517.830(4) an Operating Permit issued by the Department shall be granted for the period of time required to mine and reclaim the land described in the permit and subject to the requirements of the law. Each Operating Permit is to be renewed prior to the anniversary date by submitting the required annual fee and filing the annual report. As a courtesy, the Department may notify the permittee

by mail at least 45 days prior to the anniversary date of the permit and provide the necessary renewal forms and fee schedule for permit renewal. In cases of nonrenewal, a second notice may be sent prior to issuance of a Closure Order. The permittee shall maintain an Operating Permit until mining and reclamation, including revegetation (if required), have been completed.

(2)(a) If the Department determines from inspections conducted pursuant to ORS 517.850 or from any other source, that the operation is not in compliance with the approved Operating Permit, permit conditions, ORS 517.750-517.900, or the rules adopted thereunder, the Department shall give written notice of noncompliance to the operator;

(b) The permittee must begin rectifying all deficiencies within 30 days of receipt of the notice of noncompliance as required in ORS 517.860(1), or file a written appeal to the notice of noncompliance in accordance with OAR 632-035-0056. If the permittee appeals the notice within 30 days of receipt, the Department will not issue a Closure Order or revoke the permit pending the appeal, except in cases of reasonable probability of danger to human life, property, water resources, or wildlife. The Department will provide the permittee a written statement of the specific facts leading to that finding and corrective action for the elimination of such danger.

(c) The Department will notify the permittee in writing within ten days of verification of compliance.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.740 & 517.800

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0045

Obtaining Bond Release

(1) The permittee shall notify the Department when the reclamation has been completed.

(2) The Department shall inspect the reclaimed site. If the permittee has fulfilled the requirements of the approved reclamation plan or decommissioning performance standards, the bonds or other securities shall be released. The Department may authorize bond or other security reduction if the reclamation or decommissioning is partially completed.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.740

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0050

Appeals

(1) Prior to the initiation of a formal appeal of any departmental order, notice, or other action, made pursuant to ORS 517.750-517.955 or the rules adopted thereunder, the applicant or permittee shall first request that the State Geologist informally review and resolve the matter. The State Geologist will provide a written decision within 20 days of receipt of such an informal request. If the State Geologist is unable to resolve the informal request, the applicant or permittee may request a contested case hearing the Board or its designee for final resolution of the matter. Appeals must be filed within 30 days of receipt of the State Geologist's written decision except as otherwise provided by OAR 632-035-0030(2) of these rules and by the applicable provisions of ORS 183.310 through 183.550. A final determination by the Board must be made before any appeal for judicial review under ORS 183.480 is allowed.

(2) An applicant or permittee requesting a hearing for consideration of any appeal shall state the reasons for requesting the hearing and the objections to the Department's order, notice, or other action in accordance with ORS 183.430 through 183.470.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.890 & 517.992

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 2-1985, f. 11-19-85, ef. 11-20-85

632-035-0055

Penalties

(1) Any landowner or operator who conducts a surface mining operation, for coal or a metal-bearing ore, without a valid Operating Permit as required by ORS 517.750-517.955 shall be punished, upon conviction, by a fine of not more than \$10,000.

(2) Violation of any provision of ORS 517.750 to 517.955, or of any rule or order made pursuant to 517.910 to 517.950, or of any conditions of an Operating Permit, is punishable, upon conviction, by a fine of not more than \$10,000.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.990 & 517.992

Hist.: GMI 2-1982, f. & ef. 8-13-82; GMI 3-1984, f. & ef. 12-12-84; GMI 2-1985, f. 11-19-85, ef. 11-20-85; GMI 2-1988, f. 5-12-88, cert. ef. 5-2-88

632-035-0060

Civil Penalty

(1) Applicability. This section of these rules applies to the imposition of civil penalties under ORS 517.992(2) for violations of statutes, rules, orders and permit conditions not related to a chemical process mine.

(2) Definitions. For purposes of this section of these rules:

(a) "Department" means the Department of Geology and Mineral Industries;

(b) "Compliance Schedule" is a written plan that establishes specific actions and time tables for remedying a violation. The compliance schedule may require the violator to propose specific actions that are acceptable to and approved in writing by the department. The compliance schedule also may be used for informal disposition of proceedings through stipulation, agreed settlement, consent order or default;

(c) "Notice of Violation" is a written warning that includes a short and plain statement of the facts establishing a violation and reference to the statute, rule, order, or permit condition that has been violated;

(d) "Notice of Civil Penalty" is a written statement that includes the elements of a Notice of Violation and also imposes a civil penalty;

(e) "Outside a permit condition regarding boundaries, setbacks, buffers, or the placement of surface mining materials" means a violation of any permit condition that establishes or regulates the physical or geographic limits on mining operations. Surface mining materials means soil, rock, ore, minerals or overburden. It does not include discharges of water.

(f) "Violation" is any violation of ORS 517.700 to 517.951, or any rule, order, or permit adopted under those statutes, provided:

(A) The statute, rule, order or permit does not relate to a chemical process mine; and

(B) The violation relates to an operation that is being conducted without a permit, outside of a permit boundary, or outside of a permit condition regarding boundaries, setbacks, buffers or the placement of surface mining refuse.

(3) Notice of Violation:

(a) If the department finds that a violation does not pose an immediate threat to human health, safety or the environment, it may issue a Notice of Violation. The notice shall give the violator a specified period of time, not less than 72 hours in which to correct the violation;

(b) The Notice of Violation may include a compliance schedule and the Notice of Violation may include a requirement that a violation not be repeated within a specified period of time;

(c) If the violation is corrected within the specified period and any requirement imposed under subsection (b) of this section, is satisfied, a civil penalty shall not be imposed.

(4) Notice of Violation — Service. A notice of Violation shall either be served personally or sent by registered or certified mail. If the Notice is served by mail, the period specified for compliance shall not commence until four business days after the date the notice has been mailed.

(5) Notice of Civil Penalty. If the department finds that a violation poses an immediate threat to human health, safety, or the environment, or that the violator has not complied with the requirements contained in a previously issued Notice of Violation, the department may issue a Notice of Civil Penalty.

(6) Notice of Civil Penalty — Form and Service. A Notice of Civil Penalty shall be in a form and shall be served in the manner required by ORS 183.415.

(7) Appeals — Consolidation. Any person issued a Notice of Violation or a Notice of Civil Penalty shall have the right to a Contested Case hearing under ORS 183.413 to 183.470. The hearing must be requested in writing within 20 days of the date of service. A Notice of Civil Penalty may be issued even though a contested case hearing is pending on the underlying Notice of Violation. However, if timely requests for hearings are received on a Notice of Violation and a Notice of Civil Penalty arising out of the same violation, the hearings may be consolidated.

(8) Civil Penalty — Classification:

(a) Civil penalties imposed under ORS 517.992(2) shall be coordinated with other agencies to avoid duplication of penalty for the same violation and be in accordance with the following schedule:

(A) Class 1. Violation that poses no potential threat to human health, safety, or the environment: no more than \$1,000 per day;

(B) Class 2. Violation that poses a potential threat to human health, safety, or the environment, or repeat Class 1 Violation: no more than

\$3,000 per day. Potential threats to human health, safety or the environment include, but are not limited to, actions that increase instability, erosion or an unsafe condition at the site;

(C) Class 3. Violation that poses an immediate but remediable threat to the environment or a repeat Class 2 violation: no more than \$6,000 per day. Immediate but remediable threat to the environment means that without a quick response and considering such factors to include but not limited to slope and erodability damage will occur and that upon remediation there will be no lasting effect of that damage.

(D) Class 4. Violation that:

(i) Poses an immediate threat to human health or safety;

(ii) Causes actual human injury;

(iii) Poses a threat to the environment that is immediate and not remediable;

(iv) Causes actual damage to the environment; or

(v) Is a repeat Class 3 violation: \$1,000 to \$10,000 per day.

(b) Each day of a continuing violation may be treated as a separate violation for purposes of imposing a civil penalty;

(c) In the event of a conflict between the text of this rule and the language or operation of the attached schedule, the language in the text of the rule controls.

Stat. Auth.: ORS 517.090 & 517.840

Stats. Implemented: ORS 517.992

Hist.: GMI 1-1994, f. & cert. ef. 7-21-94

DIVISION 37

CHEMICAL PROCESS MINING

632-037-0005

Purpose

(1) The purpose of these rules is to implement the provisions of Chapter 735, 1991 Oregon Laws. These rules prescribe the consolidated application process for obtaining the permits necessary to operate a chemical process mine and for complying with other requirements of Chapter 735, 1991 Oregon Laws, including:

(a) Implementation of a state consolidated application process for chemical process mines;

(b) Coordination of federal and state permitting processes as they relate to the consolidated application process; and

(c) Opportunities for public participation and comment throughout the state consolidated application process.

(2) It is the policy of the State of Oregon to protect the environmental, scenic, recreational, social, archaeological and historic resources of this state from unacceptable adverse impacts that may result from chemical process mining operations, while permitting operations that comply with the provisions set forth in Sections 2 to 24a of Chapter 735, 1991 Oregon Laws and assure the protection of the public health, safety, welfare and the environment.

(3) Applicants submitting a consolidated application to the Department should be aware that federal and local agencies may require the applicant to obtain additional permits and approvals prior to operation.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.750 - 517.995

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0010

Definitions

The definitions in Chapter 735, 1991 Oregon Laws are hereby incorporated as the definitions to be used in interpreting these rules, unless a term is specifically defined within these rules.

(1) "Affected Agency" includes permitting agencies, cooperating agencies and commenting agencies.

(2) "Baseline Data" means information gathered to characterize the natural and cultural environments of a mining operation site before a mining operation begins.

(3) "Chemical Process Mine" means a mining and processing operation for metal bearing ores that uses chemicals to dissolve metals from ore.

(4) "Commenting Agency" means a state agency that may make recommendations to the Department or to a permitting agency regarding permit conditions or whether to approve or deny a permit under the consolidated application process established in Chapter 735, 1991 Oregon Laws. Commenting agencies may include but are not limited to the following agencies: Department of Economic Development, Emergen-

cy Management Division, Department of Energy, Department of Forestry, Health Division, Department of Land Conservation and Development, Department of Parks and Recreation, Public Utility Commission, Office of the State Fire Marshal, and the Department of Transportation. Commenting agencies may also be permitting and cooperating agencies which wish to comment on a permit issued by another agency.

(5) "Consolidated Application" means the single application required under Section 13, Chapter 735, 1991 Oregon Laws.

(6) "Cooperating Agency" means a state agency that has statutory responsibility related to a chemical process mine but that does not issue a permit for the mining operation. Cooperating agencies may include but are not limited to the following agencies: Department of Agriculture and Department of Fish and Wildlife.

(7) "Credible Accident" means an unplanned discharge of ore processing solutions, ore processing solution contaminated water, or chemicals from a mine facility into surface water, ground water, soil, overburden, or living resources in sufficient quantity to impair the pre-mine quality of the receiving water, soil, overburden, or living resources or which would exceed the discharge standards of the Department of Environmental Quality. A credible accident may also include but is not limited to the following types of accidents: fires, unplanned detonation of explosives, equipment failures, fuel spills and accidents resulting from human errors.

(8) "Department" means the Department of Geology and Mineral Industries.

(9) "Disturbed Area" means any area within a permit area boundary where surface or subsurface resources are impacted as a result of mining, processing or mine facilities.

(10) "Environmental Evaluation" means an analysis prepared to address specific impacts of the chemical process mine operation to allow affected agencies to develop permit conditions.

(11) "Facilitating Agency" means the Department of Geology and Mineral Industries. The Department shall coordinate the activities of the affected agencies related to the consolidated application process established in Chapter 735, 1991 Oregon Laws.

(12) "Mine Facilities" includes but is not limited to the following:

- (a) Leach pads and vats;
- (b) Recovery plants and/or mill;
- (c) Process solution ponds and/or storage ponds;
- (d) Impoundments and diversions;
- (e) Tailing disposal facility;
- (f) Haul roads;
- (g) Open pits;
- (h) Related buildings;
- (i) Energy facilities at the mine site;
- (j) Disposal areas for wasterock and other mining wastes; and
- (k) Storage areas for subgrade ore.

(13) "Mitigation" means the reduction of adverse effects of a proposed chemical process mining operation by considering, in the following order:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action;
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- (c) Rectifying the impact by repairing, rehabilitating or restoring the affected environment;
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action by monitoring and taking appropriate corrective measures; or
- (e) Compensating for the impact by replacing or providing comparable substitute resources or environments.

(14) "Operating Permit" means a permit issued by the Department that allows for the mining and chemical processing of metal-bearing ores and provides for reclamation.

(15) "Permitting Agency" means a state agency that has a separate permitting authority for a proposed chemical process mine. Permitting agencies may include but are not limited to the following agencies: Department of Environmental Quality; Department of Geology and Mineral Industries, Division of State Lands, and the Water Resources Department.

(16) "Permit Area" means the area of a mining project and related development activities covered by an operating permit and is defined by boundaries acceptable to the Department submitted by the applicant on a map. The permit area shall include the reasonably foreseeable extent of the mine and will generally be a contiguous parcel or parcels of land

which are available to the permittee for mining. Areas used for the storage or disposition of any product or waste material from the mining operation even though separate from the area of extraction shall be included in the permit area. The permit area may be redefined as mining progresses, subject to the requirements of OAR 632-037-0120.

(17) "Person" means any individual, partnership, corporation, association, public interest organization, the State of Oregon or any political subdivision, board, agency or commission of the State of Oregon.

(18) "Processing" means milling and the use of chemicals to dissolve metals from ore. As used in these rules, "processing" includes but is not limited to cyanide heap leach processing and cyanide vat processing operations.

(19) "Processing Solutions" means those solutions which are used directly or indirectly to recover minerals.

(20) "Project Coordinating Committee" means the interagency governmental committee established in accordance with Section 10, Chapter 735, 1991 Oregon Laws.

(21) "Reclamation" means the employment in mining of procedures designed to minimize disruption from mining and to provide for the rehabilitation of any surface and subsurface resources through the use of plant cover, soil stability techniques and the use of measures to protect the surface and subsurface water resources. Surface reclamation shall also provide for the protection of human health and safety, as well as that of livestock, fish and wildlife; environmental protection; and the establishment of a self-sustaining ecosystem, comparable to undamaged ecosystems in the area of the mine.

(22) "Study Area" means those areas determined by the Technical Review Team for which baseline data must be collected and an environmental evaluation and social impact analysis must be developed.

(23) "Technical Review Team" means the interagency group established in accordance with Section 11, Chapter 735, 1991 Oregon Laws.

(24) "Undamaged ecosystem" means an ecosystem that is comparable in utility and stability to the ecosystem surrounding the mine and/or the pre-mine ecosystem, and which retains the principle ecological characteristics reasonably expected to exist under local, climatic, geological, soil, hydrological and biological conditions.

Stat. Auth.: ORS 517.750 - 517.995
Stats. Implemented: ORS 517.750 & 517.952
Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0015

State and Federal Agency Coordination

(1) When a chemical process mine is proposed on federal land, the Department shall, when agreed to by the federal agency, enter into a memorandum of agreement with the federal agency that is designated as the lead agency for the proposed mine under the National Environmental Policy Act. The purpose of a Memorandum of Agreement shall be to coordinate the state consolidated application process established in Chapter 735, 1991 Oregon Laws with the federal application process to the fullest extent possible.

(2) The Memorandum of Agreement may:

- (a) Provide for the selection of the same third party contractor, if any, to prepare the Environmental Evaluation and Socioeconomic Impact Analysis required by Chapter 735, 1991 Oregon Laws and the Environmental Assessment or Environmental Impact Statement required by the National Environmental Policy Act;
- (b) Coordinate the timeliness for preparation and content of the Environmental Evaluation and the Environmental Assessment or Environmental Impact Statement;
- (c) Ensure that all data, information and documents prepared in satisfaction of the requirements of Chapter 735, 1991 Oregon Laws will also satisfy the fullest extent possible the requirements of corresponding portions of the National Environmental Policy Act; and
- (d) Ensure that the state and federal financial security requirements are coordinated to the fullest extent possible.

Stat. Auth.: ORS 517.750 - 517.995
Stats. Implemented: ORS 517.952 & 517.965
Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0020

Project Coordinating Committee

(1) Purpose. The purpose of a Project Coordinating Committee shall be to share information and coordinate county, state and federal permitting requirements in order to avoid contradictory requirements, facilitate the exchange of ideas, promote interdisciplinary decision making, optimize communication and avoid duplicative effort. A Project Coordinating Committee shall also review proposed permit modifications that

are deemed significant by a permitting agency or a cooperating agency under OAR 632-037-0120 and determine those portions of Chapter 735, 1991 Oregon Laws and these rules with which the applicant must comply.

(2) Committee Members. The Department shall act as the facilitating agency for a Project Coordinating Committee. Upon receipt of a Notice of Intent, the Department shall request the participation of a representative of each of the following:

- (a) All permitting and cooperating agencies;
- (b) Affected federal agencies;
- (c) Local government agencies; and
- (d) Any affected Indian tribe.

(3) Staff. Each permitting and cooperating agency shall designate an appropriate staff person(s) to participate on the Project Coordinating Committee. Each agency shall assume responsibility for those sections of the consolidated application and environmental evaluation over which the agency has permitting authority or special expertise.

(4) Meetings. The Project Coordinating Committee shall meet at appropriate times during the consolidated application process. Any member may request a meeting of the Committee. If a majority of members concur with the request, the Department shall facilitate a meeting. All meetings of the Project Coordinating Committee shall be open to the public and each meeting shall include an opportunity for public comment on matters before the Committee.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.965

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0025**Technical Review Team**

(1) Duties. The duties of the Technical Review Team shall include but not be limited to the following:

(a) Provide an interagency and interdisciplinary review of technical permitting issues and serve in an advisory capacity to a Project Coordinating Committee;

(b) Approve the methodology to be used in the collection of baseline data;

(c) Coordinate with the applicant the collection and verification of baseline data;

(d) Determine the study areas for a proposed mine;

(e) Identify any reasonable alternatives that were not analyzed by the applicant or contractor in a consolidated application and direct staff or a third party contractor to analyze such alternatives in accordance with the requirements of OAR 635-037-0045(5);

(f) Determine whether a consolidated application, including an environmental evaluation, is complete;

(g) Determine whether a proposed chemical process mining operation complies with the standards established in Chapter 735, 1991 Oregon Laws, these rules and the statutes and rules governing the issuance of all applicable permits set forth in Section 13(8) of Chapter 735, 1991 Oregon Laws;

(h) Reconcile contradictory permit conditions;

(i) Advise an applicant of the application requirements relevant to a proposed mine; and

(j) Identify the characteristics reasonably expected to exist under local conditions under OAR 632-037-0010(24).

(2) Team Members. The Department shall act as the facilitating agency for the Technical Review Team. Upon receipt of a Notice of Intent, the Department shall request the participation of a representative of each permitting and cooperating agency.

(3) Staff. Each permitting and cooperating agency shall designate an appropriate staff person(s) to participate on the Technical Review Team. Each agency shall assume responsibility over those sections of the consolidated application and environmental evaluation over which the agency has permitting authority or special expertise. When special expertise resides in more than one agency, the agencies shall coordinate their activities to avoid duplication or contradiction.

(4) Meetings. The Technical Review Team shall meet at those times necessary and appropriate to accomplish the purposes of Chapter 735, 1991 Oregon Laws and these rules. Any member may request a meeting of the Team. If a majority of other members concur with the request, the Department shall facilitate a meeting.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.967

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0030**Public Notice Procedure**

(1) Whenever public notice is required by Chapter 735, 1991 Oregon Laws or these rules, the Department shall:

(a) Mail a written notice to all permitting and cooperating agencies and affected federal and local agencies;

(b) Mail a written notice to each owner of property located within one-half mile of the perimeter of the proposed permit area of the mining operation. As used in this paragraph, "owner" means the owner of the title to real property or the contract purchaser of real property of record as shown on the last available complete tax assessment roll;

(c) Mail a written notice to persons on the master list;

(d) Mail a written notice to unpatented mineral claimants for claims that are filed with the county and are located within one-half mile of the perimeter of the proposed permit area of the mining operation; and

(e) Cause to be published a notice in at least one newspaper of general circulation in the state and in at least one local newspaper of general circulation in the county or counties in which the proposed mining permit area is located. A notice by publication shall be given at least once each week for two weeks immediately preceding an action by the Department or following an action by an applicant that requires public notice under Chapter 735, 1991 Oregon Laws or these rules. In the event that a local newspaper is not published on a weekly basis, the notice by publication shall be given in a manner that is consistent with the publishing schedule of a local newspaper.

(2) The notice provided pursuant to this section shall satisfy any notice requirement of an individual permitting or cooperating agency related to a permit included in the consolidated application process.

(3) A notice given pursuant to section (1) of this rule shall include:

(a) The name, address and telephone number of the Department and all permitting and cooperating agencies, and, if applicable, the local government responsible for land use approval, including a contact person for each agency when known;

(b) The name and address of the applicant;

(c) The location of the proposed mining operation;

(d) A description of the action or proposed action;

(e) The location or locations where interested persons may obtain further information and inspect and copy relevant forms and documents;

(f) A statement describing any opportunities and requirements for public comment and the date, time and location of any public meeting or hearing; and

(g) Any other information required by Chapter 735, 1991 Oregon Laws or these rules.

(4) As used in this section, "master list" means a consolidated list of all interested persons compiled by the Department and each permitting and cooperating agency and maintained by the Department:

(a) The Department shall establish a master list for each proposed chemical process mine. To establish a master list, the Department shall request from each permitting and cooperating agency a list of the names and addresses of persons who have expressed interest in a proposed chemical process mine;

(b) The Department shall charge the addressee a fee of \$5 for each mailing address on the master list to defray the costs of maintaining the master list and mailing public notices to persons on the master list. Any person may be added to the master list by mailing or delivering a written request and fee to the Department.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.959

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

Pre-Application Phase**632-037-0035****Notice of Intent**

(1) A prospective applicant shall file with the Department a notice of intent to submit a consolidated application. The notice shall include the following information:

(a) Name and location of the proposed chemical process mining operation, including a legal description of an area which fully encompasses the proposed boundary of the permit area and a general description of the proposed boundary of the permit area;

(b) Name, mailing address and phone number of the prospective applicant; and

(c) Brief description of the proposed chemical process mining operation.

(2) Within ten days of the filing of a notice of intent, the prospective applicant shall post a copy of the notice at each common access point and on four posts, one post at each of the four cardinal headings (north, south, east and west) along the proposed boundary of the permit area. For the purposes of this section, "common access points" shall include but not be limited to roads and trails as shown on such documents as state and county road maps and quadrangles prepared by the United States Geological Survey.

(3) Upon receipt of a notice of intent, the Department shall:

(a) Provide public notice in accordance with OAR 632-037-0030. The notice shall include the information contained in the notice of intent and information on how a person may be added to the master list;

(b) Activate a Project Coordinating Committee for the proposed mining operation and coordinate the participation of committee members and the prospective applicant in the activities of the Project Coordinating Committee;

(c) Activate a Technical Review Team; and

(d) Inform the prospective applicant of the names and contact persons for all permitting and cooperating agencies that will be participating in the consolidated application process.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.958 & 517.961

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0040

Notice of Prospective Applicant's Readiness to Collect Baseline Data

(1) When a prospective applicant is ready to begin collecting baseline data for a proposed mining operation, the applicant shall notify the Department. The notice shall include a proposed baseline data collection work plan. A work plan by discipline shall include:

(a) Data collection methodologies by discipline;

(b) Area of study; and

(c) Timing and duration of baseline data collection and verification.

(2) Upon receipt of a notice of a prospective applicant's readiness to begin collecting baseline data, the Department shall provide public notice that the applicant is ready to begin collecting baseline data and the location(s) where additional information may be obtained or reviewed.

(3) Within 30 days after receiving a notice, the Department shall conduct two public information meetings. One public meeting shall be conducted in the population center closest to the proposed mining operation and one public meeting shall be conducted in a major population center for the state, as determined by the Department. If the major population center for the state is the same as the population center closest to the proposed mine, the Department may conduct only one public information meeting.

(4) The Department shall accept written comments from the public and affected agencies for 45 days after receiving the notice.

(5) The purposes of the public information meetings and public comment period in sections (3) and (4) of this rule shall be to:

(a) Identify issues raised by the proposed mining operation; and

(b) Receive information from the public, including information related to the collection of baseline data, that is relevant to the characterization of the pre-mine environment and the evaluation of a consolidated application for a proposed chemical process mine in order to assist the Department and the permitting and cooperating agencies.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.958 & 517.969

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

Application Phase

Consolidated Application

632-037-0045

Content

The applicant shall submit to the Department a consolidated application which shall include but not be limited to the following sections:

(1) General Information;

(2) Existing Environment — Baseline Data;

(3) Operating Plan;

(4) Reclamation and Closure Plan;

(5) Alternatives Analysis.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.971

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0050

General Information

The General Information section of a consolidated application shall include but not be limited to the following:

(1) The name, mailing address and phone number of the applicant and a registered agent for the applicant.

(2) The name(s) and address(es) of all owners of the surface and mineral estate.

(3) The legal structure (e.g., corporation, partnership, individual) of the applicant as filed in the business registry with the Secretary of State and the legal address of the applicant.

(4) The proposed starting date and expected life of the proposed operation.

(5) The name and location of the proposed facility.

(6) The location of existing and proposed roads.

(7) Appropriate maps, aerial photographs, cross sections, plans, design drawings and documentation of appropriate scale may be required by the Technical Review Team. The applicant may contact the Technical Review Team for recommendations regarding scale and amount of detail required. The applicant may be required to submit extra copies of materials to be circulated to other agencies. Information that may typically be required on maps, aerial photographs or design drawings includes but is not limited to:

(a) Permit area lateral extent and proposed depth of excavation;

(b) Mine location;

(c) Waste rock, ore storage, subgrade ore or overburden stockpile locations;

(d) Processing facility locations;

(e) All other facility locations;

(f) Topsoil stockpile locations;

(g) Typical cross sections, including but not limited to, the pit, major facilities, cut and fill slopes and other disturbed areas;

(h) Plan views and profiles, including but not limited to, the pit, major facilities, cut and fill slopes and other disturbed areas;

(i) Existing watercourses and ponds;

(j) Interim watercourses and ponds;

(k) Reconstructed watercourse and ponds;

(l) Proposed post-mining topography;

(m) Property lines;

(n) General ore body location and area extent.

(8) Written evidence that the surface estate and mineral estate owners concur with the proposed reclamation plan and that they will allow the Department access to complete reclamation within the permit area if the permittee fails to comply with the approved reclamation plan. If the applicant can document a legal right to mine without the consent of the surface owner, and the applicant can assure that the Department will have a right to enter upon the permit area to complete the reclamation within the permit area if the permittee fails to complete the approved reclamation plan, the Department may issue an operating permit. If the proposed mine is located on federal land, the requirement of this section can be satisfied by documentation from the federal government verifying that the land is open to mineral exploration and development.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.971

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0055

Existing Environment — Baseline Data

The Existing Environment — Baseline Data section of a consolidated application shall include but not be limited to the following:

(1) Baseline data which describes the environmental, socioeconomic, historical, archaeological conditions, land use designations and special use designations in the study area. Such information shall include, but not be limited to, description of the following:

(a) Vegetation;

(b) Soil/overburden;

(c) Climate/air quality;

(d) Fish, fish habitat and aquatic biology;

(e) Wildlife and wildlife habitat;

(f) State or federally listed threatened or endangered species and habitat and state sensitive species and habitat;

(g) Surface and groundwater;

(h) Seismicity;

(i) Geology and geologic hazards;

(j) Mineralogy and chemistry;

(k) Noise;

(l) Existing land use and land use designations;
 (m) Cultural/Historical Resources;
 (n) Archaeological Resources;
 (o) Socioeconomic Conditions;
 (p) State scenic waterways designated under ORS 390.805–390.925 and federal wild, scenic or recreational rivers designated under 28 USC 1271–1287; and

(q) Identification of special natural areas designated by the state or federal government, including but not limited to the following:

(A) Areas designated as areas of critical environmental concern as defined by the Federal Land Policy and Management Act, 43 USC 1700 et seq.;

(B) Research natural areas as defined by the National Forest Management Act of 1976, Public Law 94-588 as amended;

(C) Outstanding natural areas as defined by 43 CFR 2070; and

(D) Areas designated by the Oregon Natural Heritage Plan established under ORS 273.576.

(2) The level of detail required in section (1) of this rule may vary depending upon the location, size, scope and type of mining operation. The applicant should consult with the Department and the Technical Review Team to determine the level of detail necessary for the applicant's proposed mining operation;

(3) The Department and the Technical Review Team shall coordinate with appropriate federal agencies that have similar baseline data requirements to avoid duplication for the applicant.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.971

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0060

Operating Plan

The Operating Plan section of a consolidated application shall include but not be limited to the following:

(1) A detailed description of the proposed mining and ore processing methods.

(2) A general list of equipment required for the proposed operation.

(3) A general schedule of construction and operation starting with the beginning of construction and ending with the completion of mining.

(4) General design assumptions and plan profile, cross sections and capacities for mine facilities including but not limited to:

- (a) Leach pads;
- (b) Impoundments;
- (c) Ponds;
- (d) Stormwater and surface water diversion systems;
- (e) Waste disposal systems;
- (f) Stockpiles and dumps;
- (g) Pits;
- (h) Tailing disposal facilities; and
- (i) Transportation and storage systems for hazardous chemicals.

(5) A process water budget analysis including but not limited to:

- (a) Precipitation and evaporation data;
- (b) Make-up water needs;
- (c) Make-up water source;

(d) Procedures to dispose of precipitation and ground water in excess of designed capacities to include but not be limited to solution treatment facilities or proposed treatment, disposal or discharge strategies. This section should be coordinated with procedures for seasonal or temporary closure and decommissioning of the operation;

(e) Surface water runoff determination for the watershed containing the mining operation.

(6) Seasonal or temporary closure procedures if applicable including but not limited to:

- (a) Target seasonal or temporary storage volumes;
- (b) Total system storage capacity;
- (c) Procedures to handle volumes of water in excess of seasonal or temporary storage capacities;
- (d) Estimated schedule for closure; and
- (e) Monitoring and reporting programs, including but not limited to:

(A) Surface and ground water monitoring systems within and outside of the permit area and reporting frequency;

(B) Water balance of the process system and leak detection systems and reporting frequency;

(C) Biological monitoring and reporting procedures and frequency; and

(D) Fish and wildlife injury and mortality monitoring and reporting frequency developed according to standards adopted by the Department of Fish and Wildlife.

(7) Operational monitoring and reporting programs, including but not limited to:

(a) Surface and ground water monitoring systems within and outside of the permit area and reporting frequency;

(b) Water balance of the process system and leak detection systems and reporting frequency;

(c) Biological monitoring and reporting procedures and frequency; and

(d) Fish and wildlife injury and mortality monitoring and reporting frequency developed according to standards adopted by the Department of Fish and Wildlife.

(8) Surface water management procedures to provide for protection against contamination of ground water and the off-site discharge of sediments into adjacent waterways.

(9) Plans for stable storage of the following:

(a) Overburden;

(b) Waste rock and low grade ore: The pre-dump topography, ground preparation, method of emplacement of dump material, height of lifts, total height and final slopes shall be described. The Department shall require design and review by a registered professional engineer or certified engineering geologist;

(c) Topsoil or suitable growth media maintained for use in revegetation;

(d) Mill tailings: Plans and specifications of all dams, impoundments or landfills proposed to be constructed for the purpose of storing or disposing of mill tailings, processing solutions or other materials consequent to the mining and milling operation may be required by the Department to be prepared by a registered professional engineer or certified engineering geologist. Procedures to prevent pollution of air, water and land shall be described. Details on how each tailings disposal facility will be reclaimed shall be submitted; and

(e) Mined ore: Plans and specifications prepared by a registered professional engineer or certified engineering geologist of all ore storage facilities may be required by the Department. Ore storage facilities may include but not be limited to reusable or permanent leach pads, stockpiles, storage binds and silos.

(10) A subsidence control plan for underground mines:

(a) An application for an underground mine operation must include an inventory which shows whether structures, renewable or nonrenewable resources, or water resources exist within the proposed permit area and adjacent area, and whether subsidence may in the professional judgment of the Department cause damage to, or diminution of reasonable foreseeable uses of the structures, renewable or nonrenewable resources, or water resources;

(b) If the Department finds, after reviewing the inventory, that no structure or renewable or nonrenewable resource exists and in the professional judgment of the Department no damage or diminution could be caused in the event of mine subsidence, the Department will not require further information under this subsection;

(c) If the Department finds, after reviewing the inventory, that any structure, renewable or nonrenewable resource, or water resources exist and that subsidence could in the professional judgment of the Department cause damage or diminution of value of subsequent land use, then the applicant shall submit a subsidence control plan which contains:

(A) A detailed description of all proposed methods of operation which may cause subsidence including the technique of ore removal and the extent, if any, to which planned and controlled subsidence is intended;

(B) A detailed description of the measures to be taken to mitigate or prevent subsidence from causing damage or lessening the value of subsequent land use including the anticipated effects of planned subsidence, if any, and measures to be taken to reduce the likelihood of subsidence;

(C) Measures to be taken on the surface to prevent damage or lessening of the value of subsequent land use;

(D) A detailed description of measures to be taken to determine the degree of damage or diminution of value or subsequent land use including measures such as the results of presubsidence surveys of all structures and surface features which might be damaged by subsidence and monitoring, if any, proposed to measure deformation near specified structures or features or otherwise as appropriate for the operations.

(11) A list of chemicals and the quantity of such chemicals to be used and procedures for the handling, storage and disposal of any chem-

icals, acid-forming materials or radioactive or hazardous material or wastes generated from or required for mining or processing at the proposed operation.

(12) A fish and wildlife protection and mitigation plan developed according to standards adopted by the Department of Fish and Wildlife.

(13) A plan for the transportation of toxic chemicals developed according to standards adopted by the State Fire Marshal.

(14) An employee safety training plan developed according to state and federal law.

(15) A spill prevention plan which includes but is not limited to initial response, safety, reporting procedures, notification to appropriate state and local agencies and a corrective action plan.

(16) Characterization and management plan for all wastes, including quantity and quality.

(17) Within 30 days after completion of construction, but before mine operation, a signed registered engineer's or certified engineering geologists' report, complete with accurate drawings and specifications depicting the actual construction shall be submitted to the Department. Specific provisions shall be made for inspections by the Department, other permitting agencies and cooperating agencies during construction and installation of any mine facilities.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.971

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0070

Reclamation and Closure Plan

The Reclamation and Closure Plan section of a consolidated application shall include but not be limited to the following provisions for the protection of public health, safety, and the environment:

(1) Procedures for the salvage, storage and replacement of topsoil or acceptable substitute.

(2) Provisions for recontouring, stabilization and topsoil replacement of all disturbed areas, where appropriate.

(3) Provisions for the revegetation of all disturbed areas consistent with the establishment of a self-sustaining ecosystem, comparable to undamaged ecosystems in the area of the mine. This shall include but not be limited to seedbed preparation, mulching, fertilizing, species selection, seeding planting rates and schedules. If applicable, the applicant shall include a plan for control of noxious weeds as identified by the Department of Agriculture.

(4) Characterization and management plan for all wastes, including quantity and quality.

(5) Provisions for specifying adequate setbacks from adjacent property boundaries and from surface waters or other resources when necessary to ensure compliance with environmental standards.

(6) Procedures for all impacted or reconstructed stream channels, riparian area vegetation and stream banks to be rehabilitated or restored so as to maximize water retention and to minimize bank erosion, channel scour, siltation, and increased water temperatures.

(7) Provisions for prevention of stagnant water may be required by the Department.

(8) Provisions for the establishment of required slopes, including reclaimed highwalls and in-water slopes.

(9) Provisions for visual screening of proposed operation if the permit area is visible from a public highway or residential area. Techniques for visual screening include but are not limited to vegetation, fencing or berms.

(10) Procedures for the removal or disposal of all equipment, refuse, structures and foundations from the permit area.

(11) Provisions to maintain access to utilities when a utility company right-of-way exists.

(12) Procedures or information for decommissioning mine facilities including but not limited to:

(a) Procedures for ore storage sites to meet decommissioning performance standards for protection of air quality, surface and ground water quantity and quality and living resources and to achieve reclamation requirements;

(b) Procedures for tailing disposal facility to meet decommissioning performance standards for long-term stability, protection of air quality, surface and ground water quantity and quality and living resources and to provide for attainment of reclamation objectives;

(c) Removal of all process chemicals;

(d) Appropriate isolation or removal of waste material; and

(e) Monitoring systems by which the success of the proposed reclamation and closure can be measured for bond release.

(13) An estimate of the total cost of reclamation consistent with the standards imposed under ORS 517.750 to 517.955.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.971

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0075

Alternatives Analysis

(1) The alternatives analysis shall include an identification and analysis of the environmental impacts of the proposed chemical process mine and alternatives to avoid or minimize adverse impacts and/or enhance the quality of the human and natural environment.

(2) The alternatives analyzed by the applicant or contractor shall include, but not be limited to, the following:

(a) Alternative locations for mine facilities, including heap leach pads, roads, impoundments, ponds, ore storage areas and waste disposal areas;

(b) Alternative designs, processes (including chemical processes), operations and scheduling for mine facilities and operations, including heap leach pads, roads, impoundments, ponds, ore storage areas and waste disposal areas;

(c) Alternative water supply;

(d) Alternative power supply; and

(e) Alternative reclamation procedures.

(3) The alternatives analysis shall include sufficient detail in the description of each alternative so that affected agencies and the public may evaluate the comparative merits of each alternative.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.979

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0077

Additional Requirements

In addition to the requirements in OAR 632-037-0050–632-037-0075, the applicant shall submit all information required by either state law or the administrative rules of a permitting agency to determine whether to issue or deny each and all of the following permits that are applicable to the proposed operation:

(1) Fill and removal permits required under ORS 196.600 to 196.665 and 196.800 to 196.900.

(2) Permits to appropriate surface water or ground water under ORS 537.130 and 537.615, to store water under 537.400 and impoundment structure approval under 540.350 to 540.390.

(3) National Pollutant Discharge Elimination System permit under ORS 468.740.

(4) Water pollution control facility permit under ORS 468.740.

(5) Air contaminant discharge permit under ORS 468.310 to 468.330.

(6) Solid waste disposal permit under ORS 459.205.

(7) Permit for use of power driven machinery on forestland under ORS 477.625.

(8) Permit to clear right of way on forestland where clearing constitutes a fire hazard under ORS 477.685.

(9) Permit for placing explosives or harmful substances in waters of the state under ORS 509.140.

(10) Hazardous waste storage permit under ORS 466.005 to 466.385.

(11) Land use permit, if applicable consistent with the Department's state agency coordination agreement, including relevant sections of OAR chapter 632, division 001.

(12) Any other state permit required for the proposed chemical process mining operation.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.971 & 517.978

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

Notice to Proceed

632-037-0080

Notice to Proceed

(1) Within ten days after receiving a consolidated application, the Department shall provide a copy of the application to each affected local government, permitting agency, cooperating agency and federal agency. For the purposes of this section, "affected local government" shall mean those local city and county governments, school districts, peoples utility districts, irrigation districts, and road districts, that are within the study area of the proposed chemical process mining operation. The Department shall also provide public notice of the receipt of a consolidated applica-

tion. In addition, upon written request, a copy of the consolidated application shall be made available to any government that believes it will be impacted by the proposed chemical process mining operation.

(2) Within 90 days of receipt of a consolidated application, the Department, in conjunction with all permitting and cooperating agencies, shall determine whether the application is complete. A completeness determination shall include the verification of baseline data as accurate.

(3) Before determining whether or not the application is complete and after all members of the Technical Review Team concur that the permitting and cooperating agencies are ready to begin preparing draft permits, the Department shall conduct a public hearing and accept written comments on whether the information contained in the consolidated application is complete and sufficient to allow the permitting agencies to determine whether to issue or deny a permit. The Department shall determine and provide public notice of the date and location of the hearing and the period allowed for written comment. Any person who believes an application is incomplete due to a lack of quantity or quality shall clearly identify the incomplete sections of the application and the reasons such sections are incomplete.

(4) If the permitting and cooperating agencies determine that the application is complete, the Department shall issue a Notice to Proceed with the permitting process and the preparation of draft permits. If the applicant is not required to submit additional information as suggested in oral or written comments which clearly identify the incomplete sections of the application and the reasons such sections are incomplete, the agencies shall prepare a written response explaining why the additional information is not being requested from the applicant.

(5) If the permitting and cooperating agencies determine that additional information is necessary, the Department shall notify the applicant in writing of the additional information that is required. Upon receipt of the additional information, the Department shall provide public notice and accept written comments for a period of 14 calendar days.

(6) After the issuance of a notice to proceed, if new information becomes available or is required by a permitting agency or cooperating agency to determine whether to issue or deny a permit or issue a permit with conditions, and the agencies determine that additional information is significant to the issuance or denial of a permit, the Department shall conduct an additional public hearing to determine whether the new information is complete within 14 days of receipt of the information. The permitting and cooperating agencies may continue to review an application while in the process of requesting additional information.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.977

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0085

Environmental Evaluation

(1) The purpose of an environmental evaluation shall be to address specific impacts of a chemical process mine operation in order to allow affected agencies to make decisions on whether to issue or deny a permit and develop permit conditions. It shall provide full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of reasonable alternatives which would avoid or minimize adverse impacts and/or enhance the quality of the human and natural environment. An environmental evaluation shall focus on significant environmental issues and alternatives.

(2) For the purposes of this rule, "impacts" include both direct and indirect impacts:

(a) "Direct impacts" are those impacts which are caused by the action and occur at the same time and place as the action;

(b) "Indirect impacts" are those impacts which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.

(3) The Department shall direct staff or hire a third party contractor to prepare an environmental evaluation. The applicant shall pay costs of hiring a third party contractor. The scope of the environmental evaluation shall be determined by the Technical Review Team following consultation with the Project Coordinating Committee.

(4) An environmental evaluation shall be completed by Department staff or a third party contractor at least 60 days before the issuance of any draft permits. Upon receipt of a complete environmental evaluation, the Department shall provide public notice in accordance with OAR 632-037-0030 stating that the environmental evaluation is complete and receive written comments for a period of 14 calendar days after the notice is given.

(5) A complete environmental evaluation shall include the following sections:

(a) Impact Analysis;

(b) Cumulative Impact Analysis;

(c) Alternatives Analyses.

(6) Impact Analysis. An impact analysis shall include but not be limited to the following:

(a) An analysis of the reasonably foreseeable causes and impacts of the proposed mine on the environment, including but not limited to air, water, soil, vegetation, wildlife and wildlife habitat, geology, cultural resources and visual resources; and

(b) An analysis of the causes and impacts of the following types of credible accidents, including the catastrophic consequences of such accidents even if the probability of occurrence is low, provided that the analysis is supported by credible scientific evidence, is not based on pure conjecture and is within the rule of reason:

(A) Releases of contaminants into the environment as a result of the mine operation or closure;

(B) Precipitation events and other natural events such as earthquakes which exceed the design standards of the mine facilities;

(C) Human error;

(D) Fire;

(E) Unplanned detonation of explosives; and

(F) Equipment failures.

(7) Cumulative Impact Analysis. A cumulative impact analysis shall include an assessment of the total cumulative impact on the environment that results from the incremental impact of an action when added with other past, present and reasonably foreseeable future actions, regardless of the agency or persons that undertake the other action, or whether the actions are on private, state or federal land:

(a) A cumulative impact analysis shall include but is not limited to the following:

(A) An identification of those resources for which an impact could occur from the proposed chemical process mine that could potentially combine with the impacts of other past, present or reasonably foreseeable future actions to produce a cumulative impact;

(B) An identification of past, present and reasonably foreseeable future actions which may occur in the study area, including each of the following types of actions:

(i) Similar actions. Actions which, when viewed with other reasonably foreseeable or proposed actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography;

(ii) Connected actions. Actions which cannot or will not proceed unless other actions are taken previously or simultaneously or are interdependent parts of a larger action and rely on the larger action for their justification;

(iii) Separate actions. Actions that affect the same environmental resources, including air, vegetation, wildlife and wildlife habitat, soil, and water resources.

(C) An analysis, by resource category identified in paragraph (A) of this subsection, of the cumulative impacts of the proposed chemical process mine and each of the actions identified in paragraph (B) of this subsection.

(b) The extent of a cumulative impact analysis shall be determined by a Technical Review Team. In making such a determination, the Technical Review Team shall consider the following:

(A) The alternatives considered for the proposed chemical process mine;

(B) The type of environmental impacts that are evaluated in the environmental evaluation; and

(C) The physical dimension of the proposed chemical process mine.

(8) Alternatives Analysis:

(a) An alternatives analysis shall include a review and analysis of the following:

(A) All alternatives analyzed by the applicant or applicant's contractor in accordance with OAR 632-037-0045(6); and

(B) Any reasonable alternatives identified by the Technical Review Team to ensure that all alternatives within the authority of each permitting or cooperating agency are reviewed and analyzed. The alternatives identified by the Technical Review Team may include, but not be limited to, the following:

(i) Alternative locations for mine facilities, including heap leach pads, roads, impoundments, ponds, ore storage areas and waste disposal areas;

(ii) Alternative designs, processes (including chemical processes), operations and scheduling for mine facilities and operations, including

heap leach pads, roads, impoundments, ponds, ore storage areas and waste disposal areas;

- (iii) Alternative water supply;
- (iv) Alternative power supply; and
- (v) Alternative reclamation procedures.

(b) The review and analysis required under subsection (a) of this section shall:

(A) Explore and evaluate the environmental impacts of all reasonable alternatives, including a brief discussion of reasons a particular alternative was eliminated by the applicant;

(B) Include sufficient detail in the description of each alternative so that affected agencies and the public may evaluate the comparative merits of each alternative; and

(C) Discuss the systematic procedure used to arrive at the preferred alternative, including the decision criteria used and the information considered.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.978

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0090

Socioeconomic Impact Analysis

(1) Concurrent with the development of an environmental evaluation, the Department shall direct staff or hire a third party contractor to prepare a socioeconomic impact analysis. The analysis shall include but not be limited to an identification of the major and reasonably foreseeable socioeconomic impacts on individuals and communities located in the vicinity of the proposed mine resulting from mine construction and operation. Such identification shall include the short and long term impacts on population, economics, infrastructure and fiscal structure. The Department shall make the analysis available to the public upon request.

(2) Upon completion of the socioeconomic impact analysis, the Department shall distribute a copy of the analysis to each local government within the vicinity of the proposed mine and affected agencies.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.980

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0095

Permitting Agency Action on a Consolidated Application

(1) Within 225 days of the issuance of a Notice to Proceed and not sooner than 60 days after the submittal of a complete Environmental Evaluation, each permitting agency shall submit to the Department its draft permit and permit conditions or permit denial document.

(2) If a permitting agency includes in its draft permit a condition that is inconsistent with the environmental evaluation, the agency shall include with its draft permits a written explanation of the conditions setting forth the findings of the agency that support the condition.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.978

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0100

Cooperating Agency Action on a Consolidated Application

(1) At least 30 days before the issuance of draft permits, each cooperating agency shall submit to the Department:

(a) Written concurrence or non-concurrence with the terms and conditions of the draft operating permit as such pertain to the statutory authority of each cooperating agency; and

(b) Permit conditions within the expertise and authority of the cooperating agency.

(2) The Department shall not issue a draft permit until each cooperating agency has concurred with the terms and conditions of the draft permit as such pertain to the statutory responsibility of each cooperating agency.

(3) The Department shall include permit conditions submitted by a cooperating agency as conditions on the Department's draft operating permit.

(4) If the Department finds that a proposed permit condition imposed by a cooperating agency creates a conflict between permits, the Technical Review Team shall resolve the conflict.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.981

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0105

Consolidated Public Hearing; Final Permits

(1) Within 15 days of receiving all draft permits and the completion of its draft operating permit, the Department shall issue public notice

of the date and location of a consolidated public hearing and period for written comment on all permits.

(2) A consolidated public hearing shall occur not sooner than 45 days and not later than 60 days after the Department issues a public notice under section (1) of this rule.

(3) At least seven days before the issuance of a final operating permit, each cooperating agency shall submit to the Department:

(a) Written concurrence or non-concurrence with the terms and conditions of the final operating permit as such pertain to the statutory authority of each cooperating agency; and

(b) Permit conditions within the expertise and authority of the cooperating agency.

(4) The Department shall not issue a permit until each cooperating agency has concurred with the terms and conditions of the permit as such pertain to the statutory responsibility of each cooperating agency.

(5) The Department shall include permit conditions submitted by a cooperating agency as conditions on the Department's final operating permit.

(6) If the Department finds that a proposed permit condition imposed by a cooperating agency creates a conflict between permits, the Technical Review Team shall resolve the conflict.

(7) Based on information received at a consolidated public hearing and within 45 days of the hearing, or within the time period required by applicable federal law, whichever is sooner, each permitting agency shall approve, deny or modify the agency's permit with conditions necessary to assure that the chemical process mining operation allowed under a permit complies with the applicable standards and requirements.

(8) Each other permitting agency shall notify the Department of the issuance of final permits. The Department shall provide public notice of the issuance of final permits.

(9) Notwithstanding any other provisions of law, the Department and any other permitting agency shall take final action to issue or deny a permit subject to the consolidated application process within one year after issuance of a notice to proceed. However, with the concurrence of the applicant, the processing of the application may be suspended for a period of time to allow the applicant to resolve issues having a bearing on, or necessary to any permitting agency's decision on whether to issue or deny a permit.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.981

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0110

Appeals; Consolidated Contested Case Hearing

(1) The applicant or any person who appeared before a permitting agency at the consolidated public hearing, either orally or in writing, may file with the State Geologist a written request for a consolidated contested case hearing. The request shall be filed within 30 days after the date the permit was granted or denied. The applicant or person requesting a consolidated contested case hearing shall state the reasons for requesting the hearing and the objections to the permitting agency's action in accordance with the Attorney General's Model Rules of Procedure.

(2) Upon receipt of a request under section (1) of this rule, the Department shall schedule a consolidated contested case hearing. The hearing shall be held not less than 60 days or more than 75 days after the notice of permit issuance or denial. The hearing shall be conducted in accordance with ORS Chapter 183 and the Attorney General's Model Rules of Procedure.

(3) Any permit granted by a permitting agency shall be suspended until completion of the administrative hearings process.

(4) Each permitting agency for which a permit decision is appealed may appoint a hearings officer to participate in the formal hearing or, with the consent of all other permitting agencies, the Department may appoint a single hearings officer. If more than one hearings officer is appointed, the Department shall appoint a chief hearings officer. The role of the chief hearings officer shall be to organize the proceedings.

(5) The hearings officer(s) shall prepare a proposed order for each contested permit.

(6) A party may file written exceptions to the proposed order with the appropriate permitting agency. If the permitting agency determines that additional information presented in a written exception was unavailable at the time of the consolidated contested case hearing and is significant to the adoption or modification of the proposed order, the agency shall remand the order to the appropriate hearings officer for further consideration.

(7) After receiving exceptions and hearing argument on the exceptions to the proposed order, the permitting agency may either adopt the proposed order or issue a new order.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.983

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0115**Judicial Review**

(1) A petition for judicial review of a permitting agency's issuance or denial of a permit shall be filed with the Supreme Court within 60 days following the date the permit is issued or denied following the entry of an order subsequent to a consolidated contested case hearing.

(2) Except as provided in section (3) of this rule, if the permit with prescribed conditions is approved, the filing of a petition for judicial review shall stay the permit during the pendency of judicial review for a period of up to six months from the date the petition is filed. The Supreme Court may extend the stay beyond the six-month period upon written request and a showing by the petitioner that the activities allowed under the permit could result in irreparable harm to the site.

(3) When only the applicant files a petition for judicial review, the six-month stay imposed under section (2) of this rule may be removed by the permitting agency upon the applicant's written request within 60 days after filing of the petition and upon a showing by the applicant that supports a finding by the permitting agency that proceeding with any or all activities under the permit will not result in irreparable harm to the site.

(4) In making findings under section (3) of this rule, the permitting agency may require an additional bond or alternative security to be filed with the Department as provided in section 24a, Chapter 735, 1991 Oregon Laws and these rules. The bond or alternative security shall be in an amount the permitting agency determines necessary to assure complete restoration of the site if the petitioner elects not to complete the project following judicial review. Agency denial of the request to remove the stay is subject to review by the Supreme Court under such rules as the Supreme Court may establish.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.983

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0117**Definitions**

(1) "Necessary technology" means technology that is required to ensure compliance with environmental standards.

(2) "Available technology" means technology that is obtainable and:

(a) Has been demonstrated to meet environmental standards at an existing mine or a demonstration project of similar size and scale; or

(b) Is reasonably expected to meet or exceed environmental standards at the proposed mine.

(3) "Practicable technology" means available and necessary technology whose costs are not significantly disproportionate to the potential environmental benefits. A technology is not practicable if the cost is so high it renders a mine operation infeasible.

(4) "Environmental standards" means standards established either by statute or rule that shall be met by a chemical process mine.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.952 & 517.956

Hist.: GMI 4-1991, f. & cert. ef. 12-5-91

632-037-0118**Best Available Practicable and Necessary Technology**

(1) Chemical process mining including extraction, processing, and reclamation, shall be undertaken in a manner that minimizes environmental damage through the use of the best available, practicable, and necessary technology to assure compliance with environmental standards.

(2) In determining the best available, practicable, and necessary technology for use in a chemical process mine, the TRT shall apply in consultation with the applicant, the following process:

(a) The TRT shall determine the necessary technologies if such technologies exist;

(b) The TRT shall determine which, if any, of the necessary technologies is available;

(c) The TRT shall determine which, if any, of the necessary and available technologies is practicable;

(d) The TRT will review, determine, and rank the necessary, available and practicable technologies by their potential environmental benefits;

(e) The TRT shall recommend to the Department, the technology which the TRT has determined is the best available, necessary, and practicable technology to assure compliance with environmental standards. The determination shall be made with reference to the policies expressed in Sections 2 and 4 of the Oregon Mined Land Reclamation Act.

(3) The department will require the applicant to use the best available, practicable, and necessary technology to assure compliance with the environmental standards. The determination shall be made with reference to the policies expressed in sections 2 and 4 of the Oregon Mined Land Reclamation Act.

(4) If the TRT or Department is unable to identify a necessary technology that is available and practicable, the Department shall not issue an Operating Permit.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.956

Hist.: GMI 4-1991, f. & cert. ef. 12-5-91

632-037-0120**Mine Operation Standards**

The Department shall require a chemical process mine to comply with the following mine operation standards:

(1) Mine facilities have been designed to handle the 100 year, 24 hour precipitation event, at a minimum.

(2) An interim vegetative cover of stockpiles of topsoil or overburden materials that will be used in reclamation shall be required to prevent erosion or fugitive dust release from the overburden storage or spoils area.

(3) Any standard adopted by rule by any permitting or cooperating agency related to the operation of a chemical process mine.

(4) No loss of existing critical habitat of any state or federally listed threatened or endangered plant species, as determined by the Department of Agriculture.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.956

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0125**Fish and Wildlife Standards**

The Department shall require a chemical process mine to comply with protection standards for fish and wildlife consistent with policies of the Department of Fish and Wildlife, including:

(1) Protective measures to maintain an objective of zero wildlife mortality.

(2) All chemical processing solutions and associated wastewater shall be covered or contained to preclude access by wildlife or maintained in a condition that is not harmful to wildlife.

(3) Onsite and offsite mitigation insuring there is no overall net loss of habitat value.

(4) No loss of existing critical habitat of any state or federally listed threatened or endangered fish or wildlife species.

(5) Any other standard adopted by rule by the Department of Fish and Wildlife applicable to a chemical process mine.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.956 & 517.987

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0130**Reclamation and Mine Closure Standards**

The Department shall require a chemical process mine to comply with reclamation and mine closure standards utilizing the best available, practicable and necessary technology to assure compliance with environmental standards. The reclamation and mine closure standards shall include but not be limited to the following:

(1) Surface reclamation shall assure environmental protection and the protection of human health and safety, as well as livestock, fish and wildlife.

(2) Surface reclamation of a chemical process mine shall require certification by the Department of Fish and Wildlife and the Department of Agriculture that a self-sustaining ecosystem, comparable to undamaged ecosystems in the area, has been established in satisfaction of the permittee's habitat restoration obligations.

(3) Post-closure monitoring shall be required by the Department to insure compliance with decommissioning performance standards.

(4) Revegetation shall be considered successful if it is consistent with the establishment of a self-sustaining ecosystem, comparable to undamaged ecosystems in the area of the mine. Vegetation test plots and chemical/physical soil and subsoil analysis may be required to insure establishment feasibility.

(5) Native species shall be established unless the use of non-native species is justified and approved by the Technical Review Team.

(6) Seedmixes, fertilizer rates and other requirements will be derived from departmental experience and advice from such sources as the Oregon Department of Agriculture, U.S. Soil Conservation Service, Oregon State University Extension Service, the Oregon Department of Transportation, the Bureau of Land Management, the Forest Service, local soil conservation districts and private sector experts.

(7) All final slopes shall be stable, blend into adjacent terrain and be compatible with the establishment of a self-sustaining ecosystem, comparable to undamaged ecosystems in the area of the mine.

(8) Reclaimed highwalls shall not have slopes exceeding 1-1/2 horizontal to 1 vertical (1-1/2:1). The Department may grant exceptions for steeper slopes when the applicant can document that the slopes will be stable and if the steeper slopes:

- (a) Blend into the adjacent terrain features;
- (b) Existed prior to mining; or

(c) Are consistent with the establishment of a self-sustaining ecosystem, comparable to undamaged ecosystems in the area of the mine.

(9) Fill slopes shall be 2:1 or flatter unless steeper slopes are approved by the Department. Technical data supporting steeper slope stability may be required by the Department.

(10) In-water slopes to six feet below water level for permanent water impoundments when necessary shall be 3:1. Reasonable alternatives may be approved by the Department when they are consistent with the reclamation plan. For example, safety benches no more than two feet below water level and five feet wide may be substituted for the slope requirement where the Department determines that sloping is not practical.

(11) Permanent structures may remain if they are part of the approved reclamation plan.

(12) Any standards adopted by rule by a permitting or cooperating agency related to reclamation or closure of a chemical process mine.

(13) Backfilling or partial backfilling of pits shall be required if the Department determines that:

(a) Backfilling is necessary to achieve the reclamation objectives set forth in ORS Chapter 517 or Chapter 735, 1991 Oregon Laws;

(b) Reclamation objectives, including but not limited to compliance with environmental standards, cannot be achieved through mitigation or other reclamation technologies; and

(c) Backfilling is the best available, practicable and necessary technology to assure compliance with environmental standards.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.956, 517.971 & 517.987

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0135

Financial Security

(1) A reclamation bond or alternative security acceptable to the Department shall be posted before the start of any mining operations. "Alternative security" shall include certificates of deposit or irrevocable letters of credit issued by a federally-insured bank. The purpose of the financial security shall be to allow the Department to meet the requirements of the reclamation and closure plan and to provide protection of surface and subsurface resources. The amount of the financial security shall be calculated on the basis of the estimated actual cost of reclamation and closure and shall not be limited. The calculation shall also consider environmental protection costs based on the credible accident analysis and the factors listed in section (6) of this rule.

(2) The Department shall assess annually the overall cost of reclamation. If changes in the operation or modifications to a permit cause the cost of reclamation to exceed the amount of the financial security currently held by the state, the permittee shall post an additional security for the difference. All reclamation calculations shall be approved by the Department.

(3) The Department shall provide for incremental surety increases, with the level of surety required being consistent with the degree and forms of surface disturbance anticipated within a time period specified by the Department. When the actual surface area to be disturbed approaches the level expected by the Department, the permittee shall notify the Department sufficiently in advance of reaching the acreage limit specified to allow for a review of the surety requirements and posting of additional surety by the permittee prior to exceeding the acreage limit set by the Department.

(4) If reclamation costs will exceed the posted financial security and the operator does not increase the amount of the financial security, the

department and other permitting agencies shall suspend all permits until the permittee posts the additional financial security.

(5) The Department may seek a lien against the assets of the permittee to cover the cost of reclamation if the financial security posted is insufficient. The amount of the lien shall be the amount of the costs incurred by the Department to complete reclamation. All current operating permits of the permittee shall be suspended and the Department shall deny immediately all pending applications of the permittee to conduct mining operations.

(6) The factors the Department shall consider in determining the amount of the security may include but are not limited to the following:

(a) The reclamation estimate submitted by the applicant as part of the consolidated application;

(b) The impact analysis, including the credible accident analysis;

(c) Supervision;

(d) Mobilization;

(e) Costs of equipment;

(f) Costs of labor;

(g) Removal or disposition of debris, junk, equipment, structures, foundations and unwanted chemicals;

(h) Reduction or stabilization of hazards such as in-water slopes, highwalls, and landslides or other mass failure;

(i) Disposition of oversize, rejects, scalplings and overburden;

(j) Backfilling, contouring or regrading and topsoil replacement;

(k) Draining, establishment of drainage and erosion control;

(l) Soil tests;

(m) Seedbed preparation, seeding, mulching, fertilizing, netting, tackifiers or other stabilizing agents;

(n) Tree and shrub planting;

(o) Fencing;

(p) Liability insurance;

(q) Long-term stabilization, control, containment or disposition of waste solids and liquids;

(r) Final engineering design;

(s) Costs of remedial measure identified to clean up releases of contaminants associated with mining, processing or beneficiation that are reasonably likely to cause a threat to public health, safety or the environment;

(t) The estimated cost of detoxification or disposal of ore processing solutions and solution contaminated ore so as to meet the standards for reclamation approved for the operation in the operating permit issued by the Department and the standards established in Chapter 735, 1991 Oregon Laws and these rules;

(u) The estimated cost of restoration of contaminated soil, surface and ground water or living resources within the standards established in Chapter 735, 1991 Oregon Laws and these rules should an accident occur at the site;

(v) The estimated cost of removal and/or disposal of chemicals used on site;

(w) The spill prevention plan;

(x) Estimated department contracted service expenses including but not limited to supervision, mobilization, labor and equipment needs of the department for decontamination and restoration should the department be required to perform such restoration.

(7) Cost estimate information shall be derived from sources such as:

(a) Comparable costs from similar projects;

(b) Catalog prices;

(c) Guides and cost estimates obtained from appropriate government, public and private sources;

(d) Site test and monitoring data;

(e) Operator estimates; and

(f) Equipment handbooks.

(8) Using the reclamation estimate submitted in the consolidated application and the impact analysis as a guide, the Department shall distribute an initial determination of the amount of financial security necessary to implement the reclamation and closure plans and to protect human health and the environment to all permitting and cooperating agencies for review and comment. After considering the comments of such agencies, the Department shall set the amount of financial security and notify the applicant.

(9) The financial security acceptable to the Department shall be posted before the start of mining operations. No permit shall be issued or renewed until all financial security for a chemical process mine is on file with the Department. Bonds or other securities shall be maintained

until operations have ceased, reclamation has been completed and all decommissioning performance standards have been met. Bonds shall be United States Treasury listed, provided by surety companies licensed to operate in Oregon and acceptable to the Department. A mining operation may not satisfy the financial security requirements through self-insurance.

(10) The Department may require financial security or an annuity for post-reclamation monitoring and care.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.987

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0140

Obtaining Financial Security Release

(1) Upon completion of full reclamation, the permittee shall submit to the Department a written request for the release of its financial security.

(2) If a permittee has conducted concurrent reclamation or partial reclamation following the cessation of mine operations, the request for release of financial security shall include an estimate of the percentage of reclamation done to date and the corresponding percentage of reclamation funds that the permittee believes should be released. A bond release or reduction request shall state in unambiguous terms all measures taken to reclaim the site and any problems or potential problems that may inhibit reclamation in accordance with permit requirements. The Department shall consider any such problems in determining the appropriate level of financial security to be maintained.

(3) Upon receipt of a request to release financial security, the Department shall:

(a) Issue a public notice in accordance with OAR 632-037-0030; and

(b) Distribute the request to each permitting and cooperating agency, members of the public who participated in any hearing or written comment period under these rules, and to any person who requests such notification.

(4) No sooner than 60 days after taking the actions required under section (3) of this rule, the Department shall conduct an informal public hearing to determine whether to allow the release or reduction of the financial security.

(5) The Department may require security or an annuity for post-reclamation monitoring and care to be paid before final release of the financial security. The Department shall determine the amount of the security or annuity and distribute the proposal to all permitting and cooperating agencies. After considering the comments of such agencies, the Department shall set the amount of the security or annuity and notify the permittee.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.987

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0145

Permit Modifications

(1) The permittee, the Department, or any other permitting or cooperating agency may request the modification of a permit issued under the consolidated application process at any time.

(2) If a permitting agency is requested to make a permit modification that the permitting agency or a cooperating agency finds is a significant permit modification, the agency shall notify the Department. The Department shall coordinate the organization of a Project Coordinating Committee.

(3) The Project Coordinating Committee shall review the proposed modification and determine the portions of Chapter 735, 1991 Oregon Laws and these rules with which the permittee must comply. The Committee shall limit its determination to those portions of the mine operation to be modified and shall be consistent with the public participation requirements set forth in Chapter 735, 1991 Oregon Laws and these rules.

(4) The permittee may continue to operate under its existing permit(s) pending completion of the permit modification process.

Stat. Auth.: ORS 517.750 - 517.995

Stats. Implemented: ORS 517.984

Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0150

Civil Penalties

(1) In addition to any other sanctions authorized by law, the Governing Board of the Department may impose a civil penalty of not less than \$200 per day and not more than \$50,000 per day for any violation

of ORS 517.750 to 517.955 or 517.960 to 517.976 related to a chemical process mine or of any rules, orders or permit conditions adopted under those provisions related to a chemical process mine. A penalty may be imposed without regard to whether the violation occurs on property covered by a permit issued under 517.750 to 517.955 or 517.960 to 517.976.

(2) The Department shall provide a written warning of its intent to impose a civil penalty at least 48 hours prior to imposing the penalty when there is no immediate danger to human health, safety or the environment. The warning may be personally served on the person incurring the penalty or may be sent by registered or certified mail. The warning shall include:

(a) A reference to the particular sections of the statute, rule, order or permit involved; and

(b) A short and plain statement of the matters asserted or charged.

(3) A civil penalty imposed under this section is due and payable ten days after the order imposing the civil penalty becomes final by operation of law or on appeal. A person against whom a civil penalty is to be imposed shall be served with a notice in the form provided by ORS 183.415. Service of the notice shall be accomplished in the manner provided by 183.415.

(4) The person to whom the notice provided for in section (3) of this rule is addressed shall have 20 days from the date of service of the notice in which to make written application for a hearing. If no application for a hearing is made, the agency may make a final order imposing the penalty.

(5) Any person who makes application as provided in section (4) of this rule shall be entitled to a hearing. The hearing shall be conducted as a contested case hearing pursuant to the applicable provisions of ORS 183.413 to 183.470.

(6) Judicial review of an order made after a hearing under section (5) of this rule shall be as provided in ORS 183.480 to 183.497 for judicial review of contested cases.

(7) When an order assessing a civil penalty under this section becomes final by operation of law or on appeal, and the amount is not paid within 10 days after the order becomes final, the order may be recorded with the county clerk in any county in this state. The clerk shall thereupon record the name of the person incurring the penalty in the County Clerk Lien Record.

(8) Failure to pay a civil penalty that has become final under this section shall be grounds for revocation of any permit issued under ORS 517.750 to 517.995 or 517.960 to 517.976 to the person against whom the penalty has been assessed.

(9) Any civil penalty received by the State Treasurer under this section shall be deposited in the General Fund to the credit of the Department and is continuously appropriated to the Department to the extent necessary for the administration and enforcement of laws, rules and orders under which the penalty was assessed.

(10) A reclamation fund shall be established into which funds not used to administer section (9) of this rule shall be deposited. The money shall be used by the Department for the purpose of reclamation of abandoned mine and drill sites.

(11) When a single incident violates statutes, rules, board orders or permit conditions administered by more than one agency, the Department shall coordinate with the other agencies having civil penalty authority before imposing a civil penalty.

(12) A civil penalty shall be assessed under this rule in accordance with the following schedule:

(a) Class 1. Potential threat to human health or safety: warning to \$10,000;

(b) Class 2. Immediate threat to human health or safety: warning to \$25,000;

(c) Class 3. Potential threat to the environment: warning to \$10,000;

(d) Class 4. Immediate threat to the environment; warning to \$25,000;

(e) Class 5. Failure to comply with laws, rules, Governing Board orders or permit conditions, with no threat to human health, safety or the environment: warning to \$10,000;

(f) Class 6. Damage to health, safety or the environment: \$1,000-\$50,000;

(g) Failure to comply with prior warning or penalty (continued or repeat violation) within the following classes:

(A) Class 1: \$200-\$10,000;

(B) Class 2: \$200-\$50,000;

(C) Class 3: \$200-\$50,000;

- (D) Class 4: \$200–\$50,000;
- (E) Class 5: \$200–\$50,000;
- (F) Class 6: \$2,000–\$50,000.

(13) A civil penalty may be imposed against the board of directors and high managerial agents of a corporation if those persons engage in, authorize, solicit, request, command or knowingly tolerate the conduct for which the penalty is to be imposed. As used in this section, “agent” and “high managerial agent” have those meanings given ORS 161.170.

Stat. Auth.: ORS 517.750 - 517.995
 Stats. Implemented: ORS 517.992
 Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

632-037-0155

Fees

(1) In addition to any permit fee required by any other permitting agency, each consolidated application shall be accompanied by an initial fee not to exceed \$606. The Department and other permitting and cooperating agencies shall not begin deliberating on whether to issue or deny a permit until the Department received an initial fee.

(2) Annually, on the anniversary date of the issuance of each such operating permit, each holder of an operating permit shall pay to the Department a fee not less than \$456.

(3) In addition to the fee charged in section (2) of this rule, the Department may charge an additional amount not to exceed \$200 for inspections made at sites:

- (a) Where surface mining was conducted without the permit required by ORS 517.790;
- (b) Where surface mining was abandoned; and
- (c) Where surface mining was conducted in an area not described in the surface mining permit.

(4) Specific project fees shall be reimbursed through the Department for costs incurred by permitting and cooperating agencies. Project costs shall include but not be limited to the following:

- (a) Baseline data methodology review;
- (b) Baseline data verification;
- (c) Public meetings, except any costs related to notifying parties on the master list;
- (d) Completeness determination of the consolidated application, including the environmental evaluation;
- (e) Permit preparation, drafting and issuance;
- (f) Environmental evaluation, preparation and review;
- (g) Project administration; and
- (h) Legal expenses.

(5) All fees charged by the Department shall be necessary, just and reasonable. Upon request, the Department shall provide the applicant with a detailed justification for all charges.

(6) The billing rates for agency staff shall be established by the individual permitting and cooperating agencies. Upon request, a breakdown of the billing rate shall be supplied to the applicant.

(7) If the costs are less than the fee paid, the excess fee shall be refunded to the applicant.

Stat. Auth.: ORS 517.750 - 517.995
 Stats. Implemented: ORS 517.973
 Hist.: GMI 2-1991, f. & cert. ef. 10-11-91

DIVISION 38

VOLUNTARY RECLAMATION PROGRAM

632-038-0005

Purpose

The rules in this division implement the provision of ORS 517.840(1)(e) in accordance with the legislative policies for mined land reclamation established by ORS 517.760.

Stat. Auth.: ORS 517.840(1)(E)
 Stats. Implemented: ORS 517.840(1)(E)
 Hist.: GMI 1-1995, f. & cert. ef. 1-5-95

632-038-0010

Applicability

The rules in this division apply to mined land reclamation except for activities related to chemical process mining regulated under OAR 632, division 037.

Stat. Auth.: ORS 517.840(1)(E)
 Stats. Implemented: ORS 517.840(1)(E)
 Hist.: GMI 1-1995, f. & cert. ef. 1-5-95

632-038-0020

Definitions

As used in OAR 632-032-0005 to 632-032-0060, unless the context indicates otherwise:

(1) “Board” means the Governing Board of the Department of Geology and Mineral Industries.

(2) “Concurrent native reclamation” means reclamation of disturbed land that occurs during mining and uses native species.

(3) “Department” means the Department of Geology and Mineral Industries.

(4) “Financial security” means the performance bond or alternative form of financial security required under ORS 517.810.

(5) “Exempt site” means mined areas exempt from the reclamation requirement of the act.

(6) “Orphaned site” means an exempt site where no mining has taken place since the enactment of the Mined Land Reclamation Act of 1972.

Stat. Auth.: ORS 517.840(1)(E)
 Stats. Implemented: ORS 517.840(1)(E)
 Hist.: GMI 1-1995, f. & cert. ef. 1-5-95

632-038-0030

Qualifying Reclamation Practices

A reclamation practice may be considered for an incentive under OAR 632-038-0050 if it meets one or more of the following criteria:

(1) Concurrent or final reclamation that enhances habitat for threatened or endangered species or species of special concern. The establishment of vegetation or habitat shall be identified by Oregon Department of Fish and Wildlife or the Oregon Department of Agriculture as beneficial to the species. The vegetation or habitat must meet cover and production targets for the reclamation to qualify.

(2) Visual screening that provides sound and dust attenuation, uses concurrent native reclamation, blends in with the surrounding area and is approved by the department.

(3) Establishment of an on-site or local seed collection, transplant, and/or cutting plan for native vegetation. The plan should include maps and text identifying where and how plant materials shall be collected and a schedule identifying dates for implementing the plan.

(4) Post-mining contour maps at a scale approved by the department and committed to by the operator that show detailed final reclamation contours and include complex slope configurations and a backfilling and compaction plan (if applicable) designed to reduce erosion, enhance revegetation success and blend in with the surrounding area.

(5) Any site that receives Oregon Department of Fish and Wildlife district biologist sign-off that the reclamation plan will provide significant enhanced habitat for anadromous fish, or state or federally listed threatened or endangered species.

(6) Any site that receives Oregon Department of Fish and Wildlife district biologist or habitat conservation division sign-off that the reclamation plan will substantially improve habitat over the pre-mine condition for avian or terrestrial wildlife or watershed health.

(7) Any site that receives Oregon Department of Fish and Wildlife or Oregon Department of Parks and Recreation sign-off that the reclamation plan will substantially improve recreational opportunities for the public. The opportunities include but are not limited to educational study areas, interpretive centers, hunting and fishing opportunities, or campgrounds in urban, suburban and rural areas.

(8) Any site operating within areas designated as prime farmlands by the Oregon Department of Agriculture that provides for no net loss of prime farmlands.

(9) Reclamation of orphaned sites that meet or exceed current program standards.

(10) Establishment of test plots or similar research oriented projects accepted by the department that are designed to demonstrate effective reclamation techniques that have broad industry utility and likely will lead to higher quality reclamation.

(11) Creation of, or participation in, a voluntary program that enhances fish or wildlife habitat at a site unaffected by mining.

(12) Creation of, or participation in, a voluntary program that provides educational opportunities to primary or secondary school students.

(13) Innovative planning or reclamation coordinated with and endorsed by the local land use planning agency that significantly enhances the site.

(14) Voluntary reclamation of abandoned sites or exempt sites.

(15) Voluntary establishment or maintenance of a stream side riparian vegetation buffer which is wider than required and enhances fish and wildlife habitat or watershed health.

Stat. Auth.: ORS 517.840(1)(E)
Stats. Implemented: ORS 517.840(1)(E)
Hist.: GMI 1-1995, f. & cert. ef. 1-5-95

632-038-0050

Application Procedures

Any person seeking incentives shall apply in writing on a form prescribed by the department.

Stat. Auth.: ORS 517.840(1)(E)
Stats. Implemented: ORS 517.840(1)(E)
Hist.: GMI 1-1995, f. & cert. ef. 1-5-95

632-038-0060

Incentives

The department, at its discretion, may provide one or more of the following incentives for qualifying reclamation practices.

(1) Release to the press and published notice in Oregon Geology of the qualifying practice and responsible persons.

(2) Nomination for Outstanding Reclamation, Outstanding Operator, or Good Neighbor awards.

(3) Reduction of up to 50 percent in the amount of the financial security required for an operating permit:

(a) A reduction in the amount of financial security may be provided only after the applicant has successfully completed a significant portion of qualifying practice;

(b) The reduction shall be for a term not to exceed five years;

(c) This incentive may be revoked at any time if the department has reasonable cause to believe that the operator has failed to comply with its operating permit or reclamation plan or is financially unstable.

(4) Distribute outstanding operator list to counties.

(5) Grant awards as provided by OAR 632-038-0070.

Stat. Auth.: ORS 517.840(1)(E)
Stats. Implemented: ORS 517.840(1)(E)
Hist.: GMI 1-1995, f. & cert. ef. 1-5-95

632-038-0070

Grants

To the extent that funds are available from sources identified in ORS 516.090(2) or voluntary settlements of enforcement actions and there is a legislative approval of expenditures, the board may award grants for qualifying reclamation practices.

Stat. Auth.: ORS 517.840(1)(E)
Stats. Implemented: ORS 517.840(1)(E)
Hist.: GMI 1-1995, f. & cert. ef. 1-5-95

632-038-0080

Coordination with Private Incentive Programs

The department may cooperate with private foundations, industry associations, or other entities with respect to the establishment and administration of awards or incentive programs that promote mined land reclamation in a manner that is consistent with the objectives of ORS 517.760, 517.840(1), and this division.

Stat. Auth.: ORS 517.840(1)(E)
Stats. Implemented: ORS 517.840(1)(E)
Hist.: GMI 1-1995, f. & cert. ef. 1-5-95
