

Chapter 632 Department of Geology and Mineral Industries

DIVISION 1

PROCEDURAL RULES

632-001-0000	Notice of Rule Making
632-001-0005	Model Rules of Procedure
632-001-0010	Service Fees
632-001-0012	Earthquake Recording Instrument Fund
632-001-0014	Contracting Procedures
632-001-0015	State Agency Coordination Program

DIVISION 5

Tsunami Inundation Zone

632-005-0000	Purpose
632-005-0010	Applicability to New Facilities and Structure
632-005-0020	Definitions
635-005-0030	Adoption of Maps for the Purposes of Screening New Essential Facilities, Hazardous Facilities, Major Structures, and Special Occupancy Structures
635-005-0040	Tsunami Inundation Zone
632-005-0050	Referrals
632-005-0060	Consultations; Requirements; Timing
632-005-0070	Exemption Responsibility
632-005-0080	Exceptions; Procedures; Timing; Appeals
632-005-0090	Exceptions; Fees

DIVISION 10

OIL AND GAS RULES

632-010-0002	General Rules
632-010-0004	Supremacy of Special Rules
632-010-0006	Secretary to the Board
632-010-0008	Definitions
632-010-0010	Application and Permit to Drill, Redrill, Deepen, Alter Casing, or Rework
632-010-0011	Active Permits
632-010-0012	Changes to Drilling Permits
632-010-0014	Drilling Practices
632-010-0015	Abandonment of Radioactive Source
632-010-0016	Enclosure and Identification of Wells and Tanks
632-010-0017	Well Records (Logs)
632-010-0018	Organization Reports
632-010-0020	Surface Equipment
632-010-0128	Boiler or Light Plant
632-010-0130	Rubbish or Debris
632-010-0132	Tubing
632-010-0134	Chokes
632-010-0136	Separators
632-010-0138	Fire Walls
632-010-0140	Reserve Pits or Sumps
632-010-0142	Directional Drilling
632-010-0144	Report of Perforating or Well Stimulation Treatment
632-010-0146	Vacuum Pumps Prohibited
632-010-0148	Production Practice
632-010-0150	Removal of Casing
632-010-0151	Notification of Fire, Breaks, Leaks, or Blow-Outs
632-010-0152	Multiple Completion of Wells
632-010-0154	Determining and Naming Fields and Pools
632-010-0156	Spacing Units, Notification
632-010-0157	Exceptions to Special Rules
632-010-0159	Underground Reservoirs for Natural Gas Storage
632-010-0161	Compulsory Integration Orders
632-010-0162	Illegal Production
632-010-0163	Limitation of Production
632-010-0164	Commingling of Production Prohibited
632-010-0165	Allocation of Gas Pursuant to Special Pool

632-010-0166	Rules
632-010-0167	Reports by Purchasers and Producers
632-010-0168	Maximum Efficient Rate Hearings
632-010-0169	Use of Earthen Reservoirs
632-010-0170	Natural Gas Policy Act Determination Procedures
632-010-0170	Reservoir Surveys
632-010-0172	Operators to Assist in Reservoir Surveys
632-010-0174	Measurement of Potential Open-Flow of Gas Wells
632-010-0176	Supervision of Open-Flow and Pressure Tests
632-010-0178	Duration of Tests
632-010-0182	Gas to be Metered
632-010-0184	Direct Well Pressure
632-010-0186	Gas-Oil Ratio
632-010-0188	Gas-Oil Ratio Surveys and Reports
632-010-0190	Gas Utilization
632-010-0192	Disposal of Brine or Salt Water
632-010-0194	Water Injection and Water Flooding of Oil and Gas Properties
632-010-0196	Gas Injection of Oil and Gas Properties
632-010-0198	Abandonment, Unlawful Abandonment, Suspension, Well Plugging
632-010-0205	Drilling Bond
632-010-0210	Disposal of Solid and Liquid Wastes
632-010-0220	Measurement of Oil

Special Rules, Mist Gas Field

632-010-0225	Spacing Plan
632-010-0230	Location of Wells
632-010-0235	Exceptions

DIVISION 15

INFORMATION AND SEISMIC TEST HOLES

632-015-0005	Information and Seismic Test Holes
632-015-0010	Definitions
632-015-0015	Application and Permit to Conduct Seismic and Information Hole Operations
632-015-0020	Seismic Shot Hole Operations
632-015-0025	Bond Requirements
632-015-0030	Compliance With Law
632-015-0035	Notices
632-015-0040	Plugging Requirements
632-015-0045	Conversion to Water Well
632-015-0050	Filing of Reports
632-015-0055	Reclamation
632-015-0060	Appeals

DIVISION 20

GEOTHERMAL REGULATIONS

632-020-0005	Jurisdiction and Authority
632-020-0010	Definitions
632-020-0015	Inspection and Supervision
632-020-0020	General Rules
632-020-0025	Supremacy of Special Rules
632-020-0030	Application and Permit to Drill, Redrill, Deepen, or Alter Casing
632-020-0031	Active Permits
632-020-0035	Drilling Bond
632-020-0040	Assignment, Transfers of Ownership
632-020-0045	Notice of Change in Ownership
632-020-0055	Proper Completion and Abandonment
632-020-0060	Filing of Well Records, Confidentiality
632-020-0065	Sundry Applications and Reports
632-020-0070	Well Designations
632-020-0090	Noise Abatement

632-020-0095	Casing Requirements
632-020-0100	Removal of Casings
632-020-0105	Directional Drilling
632-020-0110	Serving Orders
632-020-0115	Measurement of Geothermal Resources
632-020-0120	Production Reports
632-020-0125	Abandonment
632-020-0130	Subsequent Abandonment Report
632-020-0134	Naming of Fields
632-020-0135	Well Spacing
632-020-0138	Unit Agreements
632-020-0140	Commingling Production
632-020-0145	Pits or Sumps
632-020-0150	Disposal of Solid and Liquid Wastes
632-020-0151	Handling of Test Fluids
632-020-0154	Injection and Conservation
632-020-0155	Application to Drill Injection Well
632-020-0156	Permit for Injection
632-020-0157	Construction of Injection Wells
632-020-0158	Wellhead Equipment, Injection Wells
632-020-0159	Monitoring Injection
632-020-0160	Appeals From Board Actions
632-020-0165	Judicial Review of Board Actions
632-020-0170	Environmental Protection

Geothermal Blow-Out Prevention

632-020-0175	Blowout Prevention, Geothermal Wells
632-020-0180	Blowout Prevention Rules for Prospect Wells

DIVISION 30

OREGON MINED LAND RECLAMATION ACT

Applicable to All Mineral Products Except Coal and Metal-Bearing Ore Operations Which Obtain Initial Permits After August 16, 1981

632-030-0005	Purpose of These Rules
632-030-0010	Definitions
632-030-0015	General Information
632-030-0016	Total Exemptions
632-030-0017	Limited Exemption
632-030-0020	Procedures for Applying for an Operating Permit
632-030-0022	Fees
632-030-0025	Requirements for the Reclamation Plan
632-030-0030	Department Action on Reclamation Plan and Operating Permit Application
632-030-0035	Modification of an Operating Permit
632-030-0040	Maintaining and Renewing an Operating Permit
632-030-0045	Obtaining Bond Release
632-030-0056	Appeals
632-030-0060	Penalties
632-030-0070	Civil Penalty

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
632-033-0010	Definitions
632-033-0016	Exemptions
632-033-0025	Exploration Permit Requirements
632-033-0030	Department Action on an Exploration Permit

632-033-0035	Application
632-033-0040	Modification of an Exploration Permit
632-033-0043	Maintaining an Exploration Permit
632-033-0045	Expiration of an Exploration Permit Obligation
632-033-0045	Obtaining Financial Security Releases
632-033-0050	Appeals
632-033-0055	Penalties

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
632-035-0010	Definitions
632-035-0015	General Information
632-035-0016	Total Exemption
632-035-0017	Limited Exemptions
632-035-0020	Procedures for Applying for an Operating Permit
632-035-0025	Requirements of an Operating Permit Application
632-035-0030	Department Action on Operating Permit Application
632-035-0035	Modification of an Operating Permit
632-035-0040	Maintaining an Operating Permit
632-035-0045	Obtaining Bond Releases
632-035-0050	Appeals
632-035-0055	Penalties
632-035-0060	Civil Penalty

DIVISION 37

CHEMICAL PROCESS MINING

632-037-0005	Purpose
632-037-0010	Definitions
632-037-0015	State and Federal Agency Coordination
632-037-0020	Project Coordinating Committee
632-037-0025	Technical Review Team
632-037-0030	Public Notice Procedure

Pre-Application Phase

632-037-0035	Notice of Intent
632-037-0040	Notice of Prospective Applicant's Readiness to Collect Baseline Data

Application Phase

Consolidated Application

632-037-0045	Content
632-037-0050	General Information
632-037-0055	Existing Environment — Baseline Data
632-037-0060	Operating Plan
632-037-0070	Reclamation and Closure Plan
632-037-0075	Alternatives Analysis
632-037-0077	Additional Requirements

Notice to Proceed

632-037-0080	Notice to Proceed
632-037-0085	Environmental Evaluation
632-037-0090	Socioeconomic Impact Analysis
632-037-0095	Permitting Agency Action on a Consolidated Application
632-037-0100	Cooperating Agency Action on a Consolidated

	Application
632-037-0105	Consolidated Public Hearing; Final Permits
632-037-0110	Appeals; Consolidated Contested Case Hearing
632-037-0115	Judicial Review
632-037-0117	Definitions
632-037-0118	Best Available Practicable and Necessary Technology
632-037-0120	Mine Operation Standards
632-037-0125	Fish and Wildlife Standards
632-037-0130	Reclamation and Mine Closure Standards
632-037-0135	Financial Security
632-037-0140	Obtaining Financial Security Release
632-037-0145	Permit Modifications
632-037-0150	Civil Penalties
632-037-0155	Fees

DIVISION 38

VOLUNTARY RECLAMATION PROGRAM

632-038-0005	Purpose
632-038-0010	Applicability
632-038-0020	Definitions
632-038-0030	Qualifying Reclamation Practices
632-038-0050	Application Procedures
632-038-0060	Incentives
638-038-0070	Grants
632-038-0080	Coordination With Private Incentive Programs

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 Ch. 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 November 4, 1993.

(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

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 Ch. 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 to strategically place accelerographs in key buildings or facilities.

(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: The publication(s) referred to or incorporated by reference in this rule 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

632-001-0014

Contracting Procedures

Agreements, contracting, and contract management will be carried out as prescribed in OAR Chapter 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 Chapter 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) "DLCDC" 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 Chapter 632, Division 010;

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

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

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

(e) The issuance of permits for chemical process mining under OAR Chapter 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 DLCDC and the Attorney General's office;

(E) Rely on any relevant goal interpretations for state agencies adopted by the LCDC under OAR Chapter 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 Chapter 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 compli-

ance 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 Chapter 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 Chapter 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 Chapter 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 DLCDC as required by OAR 660-030-0075;

(c) Any notice provided to DLCDC 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 depart-

ment 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, ORS 197.180 & ORS 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

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 & ORS 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 & ORS 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 ORS 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 & ORS 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 & ORS 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 special 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 & ORS 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 & ORS 455.447
 Hist.: GMI 1-1996, f. & cert. ef. 1-31-96

632-005-0060

Consultations; Requirements; Timing

(1) For all new construction of 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 & ORS 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 & ORS 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 & ORS 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 reason-

able 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 & ORS 455.447

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

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. These special rules supersede general rules which conflict with them.

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

632-010-0006

Secretary to the Board

The State Geologist shall act as secretary to the board.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 4-1985, f. & ef. 11-20-85

632-010-0008

Definitions

As used in OAR 632-010-0010 through 632-010-0240, unless the context requires otherwise:

(1) "Abandonment" means the condition of a well when it is permanently plugged and the site restored according to these rules with the approval of the department.

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

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

(4) "Barometric Pressure" means the pressure or weight of air determined by the use of a barometer at a given point.

(5) "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 test.

(6) "Blow-Out" means an uncontrolled escape of oil, natural gas, or water as a flow from a well.

(7) "Blow-Out Preventer" means a heavy casing-head control of special gates or rams which will seal the annular space between drill pipe or tubing and casing or which completely closes off the top of the inner casing string.

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

(9) "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.

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

(11) "Casing-Head Gas" means any gas or vapor, or both gas and vapor, indigenous to an oil stratum and produced from such stratum with oil.

(12) "Combination Well" means a well productive of both oil and gas in commercial quantities from the same pool and which has sufficient natural pressure to cause gas to enter a pipeline carrying more than atmospheric pressure.

(13) "Completion" means that a well is in such condition that it is capable of producing oil and/or gas.

(14) "Condensate" means hydrocarbons existing in the gaseous state in the reservoir, at original reservoir conditions, but condensing to a liquid at pressures or temperatures below those of the reservoir.

(15) "Connate Water" means the water which was present with the deposition of solid sediments in an oil or gas reservoir and which has not, during the oil accumulation, been displaced.

(16) "Correlative Rights" means that each owner or producer in a pool is privileged to produce therefrom only in such manner or amount as not to injure the reservoir to the detriment of others or to take an undue proportion of the oil or gas obtainable therefrom, or to cause net drainage between spacing units.

(17) "Cubic Foot of Gas" means the volume of gas expressed in cubic feet computed at standard pressure base of 14.73 pounds per square inch absolute and a standard temperature base of 60 degrees Fahrenheit.

(18) "Day" means a period of twenty-four consecutive hours from 7 a.m. one day to 7 a.m. the following day.

(19) "Development" means any work performed to bring about production of oil and/or gas.

(20) "Developed Area or Developed Unit" means a unit as defined in ORS 520.005(12) having a well completed thereon which is 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 shall include only that part so found to be productive.

(21) "Differential Pressure" means in the case of wellhead measurement, the difference between the tubing pressure and the casing pressure; 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).

(22) "Disposal Well" means any well used for the purpose of disposing produced salt water and produced oil field waste.

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

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

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

(26) "Field" means the general area underlaid by one or more pools.

(27) "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil in section (44) of this rule, including condensate originally in the gaseous phase in the reservoir.

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

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

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

(31) "Gas Well" means:

(a) A well which 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 liquid hydrocarbons.

(32) "Idle Well" means an inactive well which has not been completed, suspended, or abandoned with approval of the State Geologist.

(33) "Illegal Gas" means gas which 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.

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

(35) "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.

(36) "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 can mean, 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.

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

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

(39) "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.

(40) "Mud-Laden Fluid" means any approved mixture of fluid and clay or other material as the term is commonly used in the industry which will effectively seal the formation to which it is applied.

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

(42) "Nomination" means the statement made by a purchaser as to the amount of oil or gas he is willing to purchase for a given period.

(43) "Oil" means crude petroleum oil and all other hydrocarbons, regardless of gravity, which are produced in liquid form by ordinary production methods, but does not include liquid hydrocarbons that were originally in a gaseous phase in the reservoir.

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

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

(46) "Operator" means any person who has the right to drill a well, or who is in charge of the development of a lease or the operation of a producing well.

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

(48) "Period Allowable" means the period as designated by the State Geologist in which an allowable quantity may be produced.

(49) "Person" means any natural person, partnership, corporation, association, receiver, trustee, guardian, fiduciary, executor, administrator, representative of any kind, or the State of Oregon and its political subdivisions, boards, agencies, or commissions.

(50) "Pipeline Oil" means oil free from water and basic sediment to the degree that it is acceptable for pipeline transportation and refinery use.

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

(52) "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.

(53) "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;

(b) The introduction of gas or fluid for the same purpose but obtained from an outside source.

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

(55) "Product" means any commodity made from oil or gas, and shall include refined crude oil, crude tops, topped crude, processed crude petroleum, residue from crude petroleum, cracking stock, uncracked fuel oil, fuel oil, treated crude oil, residuum, gas oil, casing-head gasoline, natural gas, gasoline, kerosene, benzene, wash oil, waste oil, blended gasoline, lubricating oil, blends or mixtures of oil with one or more liquid products or by-products derived from oil or gas, and blends or mixtures of two or more liquid products or by-products from oil or gas.

(56) "Proved Oil or Gas Land" means the area which 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.

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

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

(59) "Separator" means an apparatus for separating oil, gas, water, etc., with efficiency as it is produced.

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

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

(62) "Sour Gas" means gas which contains hydrogen sulfide, sulphur, or other deleterious substances, in sufficient quantities to render it unfit for domestic consumption.

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

(64) "Spud" means the beginning of actual drilling in the ground.

(65) "State Geologist" means the chief administrator of the State Department of Geology and Mineral Industries.

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

(67) "Stratigraphic Test Hole" means a hole less than 500 feet deep and drilled for stratigraphic or geologic data only and not for production under any foreseeable conditions as determined by the State Geologist.

(68) "Survey" means all tests made for the purpose of obtaining information concerning the productive possibility of any geological formation and shall include electrical and directional surveys.

(69) "Suspension" means the status of a well that is not in an abandoned or completed condition when it has been safely left unattended, with the approval of the State Geologist, for a period of 30 days or more.

(70) "Underground Storage" means underground reservoirs either natural or artificial or both which are suitable for storage of natural gas, produced petroleum, and petroleum products. The term may also mean the produced natural gas, petroleum, and petroleum products confined in underground reservoirs.

(71) "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.

(72) "Waste" in addition to its ordinary meaning, means "physical waste" as that term is generally understood in the

petroleum industry. It includes:

(a) Underground waste and the inefficient, excessive, or improper use or dissipation of reservoir energy, including gas energy and water drive, of any pool; and the locating, spacing, drilling, equipping, operating, or producing of any oil well or gas well in a manner which results or tends to result in reducing the quantity of oil or gas ultimately recoverable from any pool;

(b) Surface waste and the inefficient storing of oil and the locating, spacing, drilling, equipping, operating, or producing of oil wells or gas wells in a manner causing or tending to cause unnecessary or excessive surface loss or destruction of oil or gas.

(73) "Well" means a hole drilled in search of oil or gas, but shall not include core test holes, stratigraphic test holes, seismic test wells or wells drilled for information purposes only as distinguished from wells drilled for the purpose of producing oil or gas, if found.

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

(75) "Well Log" means the written record progressively describing the strata, water, 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 normal procedure of drilling, also to include all electrical and mechanical surveys performed in the well bore.

(76) "Wildcat Well" means a drilling or producing well in an unproved area.

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

Stat.Auth.: ORS Ch. 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

632-010-0010

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

(1) No person proposing to drill, redrill, deepen, alter casing, or rework any well, stratigraphic test hole, service well or disposal well shall commence the drilling, redrilling, deepening, altering of casing, or reworking until the person has applied to the State Geologist upon a form prescribed by the State Geologist for a permit to operate the well, paid to the department a nonrefundable fee of \$250 for each such well, posted a bond or other financial security required pursuant to OAR 632-010-0205 and obtained the permit to drill, redrill, deepen, or rework the well pursuant to section (3) of this rule. The \$250 fee may be waived by the State Geologist if operations to redrill, deepen, alter casing, or rework are a continuation of other operations.

(2) The application for a permit shall include:

(a) The location of the well;

(b) The name and address of the surface owner, operator, 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, proposed depth in all cases;

(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 revoked if the applicable rights in subsection (2)(f) of this rule, cease to exist prior to commencement of drilling operations.

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

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

(6)(a) The State Geologist shall 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 twenty (20) days from the date of application in which to comment;

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

(7)(a) If upon receipt of the application the State Geologist or his agent determines that the method of drilling and the equipment to be used by the applicant in drilling the well comply with applicable laws and rules, the State Geologist shall issue the permit within 30 days. The State Geologist may refuse to issue or may revoke a permit if he determines that the method of drilling or the equipment to be used or being used in drilling the well does not comply with the applicable laws or rules. The application for permit shall be denied if the applicant has an unlawfully abandoned well or wells in the state. A permit may also be denied if the operator has not submitted all overdue records or samples from a previous well. A permit may also be denied to any applicant that has or has had a business relationship with an operator that has an unlawfully abandoned well or has not submitted overdue records or samples;

(b) If the State Geologist refuses to issue a permit, notification shall be sent to the applicant in writing within 30 days from the date of application and provide the reason for denying the permit. Any person adversely affected by a ruling of the State Geologist may within 30 days of such ruling appeal to the board.

(8) When issuing the permit, the State Geologist 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.

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

(10) The State Geologist may revoke a permit for noncompliance with applicable statutes, rules, orders, and permits conditions.

(11) Drilling, redrilling, deepening, altering or casing, or reworking operations must commence within one year from the date of issuance of the permit or such permit shall become invalid. The permit may be extended by the State Geologist for a maximum of one additional year upon receipt of written request from the permittee, before the expiration date, giving reasons acceptable to the State Geologist for an extension. The request shall be accompanied by a nonrefundable fee paid to the department of \$250.

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

632-010-0011

Active Permits

The permittee shall provide an annual nonrefundable fee paid to the department of \$500 on or before the anniversary of the issuance date of each active permit issued by the State Geologist. As a courtesy the department may notify the permittee with a notice prior to the anniversary date.

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-

632-010-0012
Changes to Drilling Permits

Proposed changes or amendments to a drilling permit shall be approved by the State Geologist prior to taking effect:

(1) Changes involving depth, casing, or location within the same drilling or spacing unit, shall be submitted on a form provided by the State Geologist. No additional fee is required.

(2) A change 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) Changing operators requires written notification to the Department signed by the original permittee and the new permittee, a new bond, and a new organization 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; GMI 6-1990, f. & cert. ef. 12-5-90

632-010-0014
Drilling Practices

(1) Pits for Drill Cuttings: There shall be provided at every well site before the actual drilling has been started, one or more pits (sumps) of approved design and size for holding the drill cuttings and fluid removed from the well.

(2) Casing and Sealing Off Formations:

(a) Surface casing:

(A) The department shall determine that surface casing used in all wells shall be of suitable size, grade, and wall thickness;

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

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

(E) Surface casing shall be cemented by the pump and plug or displacement method with sufficient cement to circulate to the surface;

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

(b) Other casing: Each fluid bearing zone above the producing horizon in oil and gas wells shall be cased and sealed off to prevent effectively the migration of formation fluids to other zones. Such casing and sealing off shall be effected and tested in such manner and by such methods and means as may be prescribed by the State Geologist or representative.

(3) At any time of drilling any well by rotary method, the operator shall continuously maintain in the hole, from top to bottom, good mud-laden fluid in accordance with recognized safe practice. Other drilling fluids may be approved by the department if permission is applied for in advance by the operator.

(4) Well-Head Equipment:

(a) In drilling in areas where high pressures are likely to exist, all proper and necessary precautions shall be taken for keeping the well under control, including the use of blow-out preventers and high pressure fittings attached to casing strings properly anchored and cemented;

(b) Unless otherwise approved by the department, the blow-out prevention equipment shall include a minimum of:

(A) A hydraulically operated accumulator;

(B) An expansion type preventer;

(C) A double ram preventer;

(D) A drilling spool with side outlets or equivalent;

(E) A fillup line;

(F) A kill line equipped with at least two valves, one of which shall be a check valve;

(G) A blowdown line equipped with a pressure gauge and at least two valves, one of which shall be adjustable. The blowdown

line shall be securely anchored;

(H) A pit horn;

(I) An inside preventer, a device to prevent flow up the drill pipe.

(c) The department shall determine the minimum working pressure required of blow-out preventers;

(d) Blow-out preventer tests:

(A) Prior to drilling out the casing shoe after cementing casing, all casing strings shall be pressure tested to 1.5 psi per foot of casing, unless otherwise permitted by the department. Such tests shall not exceed the rated working pressure of the casing or the blow-out preventer stack assembly working pressure, whichever is less;

(B) Blow-out preventer equipment shall also be tested before drilling out the shoe of each casing string. Ram type preventers and auxiliary equipment shall be tested to a minimum of 1,000 psi or to 1.5 psi per foot of casing, or to the working pressure of the casing or assembly, whichever is less, unless otherwise permitted by the department. Expansion type preventers shall be tested to 70 percent of the above pressure testing requirements. Higher pressures, using a test plug in the casing head, may be required by the department on a case by case basis;

(C) The blow-out prevention equipment shall 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;

(D) During drilling operations, blow-out prevention equipment shall be actuated to test proper functioning once each trip or once each week, whichever is more frequent;

(E) All flange bolts shall be inspected at least weekly and retightened as necessary during drilling operations. The auxiliary control systems shall be maintained in working order and be inspected daily to check the mechanical condition and effectiveness and to insure personnel acquaintance with their operation. A blow-out prevention practice drill shall be conducted weekly for each drilling crew, and be recorded on the driller's log.

(5) Inclination Surveys:

(a) Unless exempted by the department, inclination surveys to determine the angle of the hole from the vertical shall be performed in all wells before completion to production at a depth greater than 1,500 feet. The surveys must be taken at 500 foot intervals or at the nearest drill bit change, but not to exceed 1,000 feet apart. These surveys may be made during the course of drilling or after the well has reached total depth. Directional surveys may be filed in place of inclination surveys, and computations from dipmeter surveys may also be used. Such computations must be filed with the department;

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

(6) Deepening: Every person, owner, or producer who desires to deepen a well to a depth below that to which it was originally permitted shall file a written application to deepen. The application shall set forth in detail 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 person, owner, or producer is not in violation of the law or the orders or rules of the board, the department may issue a deepening permit. The actual deepening shall not be started until the deepening permit has been posted at the well location.

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

632-010-0015

Abandonment of Radioactive Source

(1) When a radioactive source is lodged downhole in a well recovery efforts must be made. If unsuccessful, operations shall

immediately be discontinued and the operator shall notify the department.

(2) Abandonment Procedures:

(a) Sources abandoned except as stipulated in subsection (b) of this section, shall be covered with a minimum 100 foot cement plug on top of which a whipstock shoe or other mechanical device of equal effectiveness shall be set. If the hole is later sidetracked above the source, the sidetracked hole shall be controlled to assure that it is at least 15 feet away from the source;

(b) Sources abandoned behind a casing string above total depth shall, upon abandonment of the well, have a minimum 100 foot cement plug set opposite the source, extending at least 50 feet above and 50 feet below the source.

(3) After a well containing an abandoned radioactive source has been abandoned, re-entry shall be permitted only with the understanding that drilling shall not disturb the cement plug, and any sidetracked hole shall not be closer to the source than 15 feet.

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

632-010-0016

Enclosure and Identification of Wells and Tanks

(1) Every well producing oil or gas, every suspended well, and every injection well shall be identified by the operator by a sign posted in a conspicuous place near the well and containing the following information: name of operator, name of lease, well number, section, township and range, and a 24-hour emergency telephone number.

(2) Every tank or other oil measuring device shall be identified by a sign posted in a conspicuous place near the tank or device and containing the following information: name of operator, lease, section, township and range, and a 24-hour emergency telephone number.

(3) The department may require that a well producing oil or gas, suspended well capable of producing oil or gas, and injection well shall be fenced or walled to a minimum height of six feet. Such an enclosure shall be kept locked to protect life and property, and identification signs described in sections (1) and (2) of this rule shall 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

632-010-0017

Well Records (Logs)

(1) During the drilling, redrilling, deepening, or reworking of every well, except seismic, core, or other shallow wells drilled solely for geological data, the operator or other person responsible for the conduct of drilling operations, shall keep at the well a detailed and accurate record of the well, which shall be accessible to the State Geologist or representative. The well record shall progressively describe the strata, water, oil, and/or gas encountered. Additional required information includes pressures, test results, caving strata, casing record, perforating, chemical treatment, and other pertinent information as are usually recorded in the normal procedure of drilling. This shall also include, if available, formation water chemistry analysis and hydrocarbon analysis including BTU content. These records shall include the exact surface location of the well. A copy of the records shall be furnished to the State Geologist upon a form prescribed by the State Geologist within 20 days after the completion, suspension, or abandonment of any well whichever date comes first.

(2) All well logging shall also be recorded and high quality reproducible copies and prints furnished the State Geologist within twenty (20) days after completion, suspension, or abandonment which ever date comes first. A complete set of cuttings, washed and dried, and samples of cores, if taken, correctly labeled and identified as to depth, shall be filed with the State Geologist within 20 days after completion, suspension, or abandonment of every

such well.

(3) Well logs, electric logs, cuttings, and cores shall be kept confidential by the State for a period of two years from the completion, suspension, or abandonment of the well:

(a) This period of time may be extended by the State Geologist for the protection of the economic interests of the operator of the well upon written application by the operator showing good cause in the opinion of the State Geologist at least 30 days before the expiration of confidentiality. The application shall give a proposed length of extension and reasons for such extension;

(b) An operator may authorize the State Geologist to release records before the end of the two year confidentiality period by providing such release in writing 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

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 shall immediately file with the State Geologist an organization report on a form provided by the State Geologist. 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

632-010-0020

Surface Equipment

Meter fittings of adequate size to measure the gas efficiency for the purpose of obtaining gas-oil ratios shall be installed on the gas vent-line of every separator. Well-head equipment shall 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 State Geologist. Valves shall 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

632-010-0128

Boiler or Light Plant

No open flame or source of sparks shall be placed nearer than 100 feet to any producing well or hydrocarbon storage.

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

632-010-0130

Rubbish or Debris

Any rubbish or debris that might constitute a fire hazard shall be removed to a distance of at least 150 feet from the vicinity of wells, tanks, and pump stations. All waste shall be disposed of in such manner as to avoid creating a fire hazard or polluting streams and freshwater strata and in compliance with Oregon 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

632-010-0132

Tubing

All wells shall be equipped with tubing. Production shall be exclusively through tubing, unless otherwise approved by the department. The bottom of tubing on flowing wells shall 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

632-010-0134

Chokes

All free-flowing wells shall 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

632-010-0136

Separators

All wells flowing oil and gas shall 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

632-010-0138

Fire Walls

Every permanent oil or condensate tank, or battery of tanks, shall be surrounded by a dike or fire wall 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

632-010-0140

Reserve Pits or Sumps

Materials and fluids or any fluid necessary to the drilling, production, or other operations by the permittee shall be discharged or placed in pits and sumps approved by the department and the State Department of Environmental Quality. The operator shall provide pits, sumps, or tanks of adequate capacity and design to retain all materials. In no event shall the contents of a pit or sump be allowed to:

- (1) Contaminate streams, artificial canals or waterways, groundwaters, lakes, or rivers.
- (2) Adversely affect the environment, including but not limited to, persons, plants, fish, and wildlife and their populations.

(3) When no longer needed and within one year of completion, suspension of abandonment, fluid in pits and sumps shall be disposed of in a manner approved by the Department of Environmental Quality and the sumps filled and covered and the premises reclaimed. The restoration need not be done if arrangements are made with the surface owner to leave the site suitable for beneficial subsequent use. The permittee shall 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

632-010-0142

Directional Drilling

(1) Any well which is intentionally deviated from the vertical shall be surveyed at intervals of at least 250 feet to determine the location of the borehole at those intervals. Deviation from the vertical is permitted without special permission for short distances, 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 shall be intentionally deviated from the vertical

unless the operator thereof shall first file application and obtain a permit from the state Geologist:

(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 operator must notify the State Geologist immediately of the deviation of the hole or his intention to deviate the hole. When an operator follows this procedure, he must file an application as soon as practicable and obtain a permit. The application shall be made in such form as provided below and shall include or have attached to it:

(A) Surface location in terms of distances from lease and section boundaries. 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) Neat and accurate 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 shall be drawn to a scale which will allow easy observation of all pertinent data.

(3)(a) The State Geologist shall notify all affected mineral rights owners in drilling or spacing units toward which the well is being directionally drilled of the proposed deviation before approving an application. Approval of the application to deviate shall be granted or denied at the discretion of the State Geologist. Affected mineral rights owners may request a hearing to consider the application. If any such mineral rights owner requests a hearing in writing within 20 days of receipt of notice it shall be held without undue delay by the Governing Board or its designated representative. If no request for a hearing is made in writing within 20 days of receipt of notice the State Geologist 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 State Geologist does not object to the application, the State Geologist may approve it immediately.

(4) Upon completion, suspension or abandonment of the well, whichever comes first, the permittee shall file a complete directional survey of the well obtained by approved well surveying methods with the State Geologist 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

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 shall file a report with the department, describing perforation and 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

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, upon application and hearing, and for good cause shown,

the Board shall permit the use of vacuum pumps.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54; GMI 1-1982, f. & ef. 6-25-82

632-010-0148

Production Practice

Naturally flowing wells shall 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

632-010-0150

Removal Of Casing

No person shall remove a casing, or any portion thereof, from any well without first giving advance notice and obtaining approval in writing 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

632-010-0151

Notification of Fire, Breaks, Leaks, or Blow-Outs

(1) All persons controlling or operating any oil and gas wells, or receiving tanks, storage tanks, or receiving and storage receptacles into which crude oil is produced, received, or stored, shall immediately notify the department giving full details concerning all fires which occur at such oil or gas wells or tanks or receptacles on their property, and shall immediately report any breaks in tanks or receptacles and pipelines from which oil or gas is escaping or has escaped.

(2) In all such reports of fires, breaks, leaks, or escapes, or other accidents of this nature, the location of the well, tank receptacle, or line break shall be given by Section, Township, Range, and property so that the exact location thereof can be readily located on the ground. Such report shall likewise specify what steps have been taken or are in progress to remedy the situation reported and shall detail the quantity of oil or gas lost, destroyed, or permitted to escape.

(3) In case any tank or receptacle is permitted to run over, the escape thus occurring shall be reported as in the case of a leak.

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

632-010-0152

Multiple Completion of Wells

No well shall be permitted to produce either oil or gas from different strata through the same tubing without 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 operator to provide proof of adequate and complete separation of the pools involved in the completion or make a packer leakage test. The operator shall give notification to the department so that the department may witness the actual operation of multiple completion of a well or witness any packer leakage 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; GMI 2-1995, f. & cert. ef. 3-10-95

632-010-0154

Determining and Naming Fields and Pools

(1) Field names and boundaries may be 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 shall be classified as to the pool from which they produce and pools may be named by the State Geologist.

(3) Operators making new field or pool discoveries may recommend names to the State Geologist.

(4) If any person is dissatisfied with a new field designation, or a well or pool classification or determination, that person may request a reconsideration by the board of that designation, classification, or determination.

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

632-010-0156

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 thereof and establish field limits and Special Rules

(2) Before establishing spacing units, field limits and Special Rules, the board shall schedule and hold a hearing. Notification for such a hearing shall 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 shall notify mineral owners in the 160 acre quarter section in which 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 shall notify mineral owners in the affected adjacent quarter sections;

(b) In the 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 shall notify mineral owners in the 160 acre quarter section in which the well is located and in the eight surrounding quarter sections;

(c) In those parts of the state that are without surveyed sections, the department shall notify mineral owners located within the boundary of a superimposed 640 acre section with the well being centered in the section. Such superimposed section shall 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

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 set-back distance set forth in a Special Rule, the department shall notify mineral owners in the spacing unit where the well is proposed to be drilled and in the adjacent spacing unit(s) within the set-back distance. Any such mineral owner may request a hearing by the board to consider the application. If no request for a hearing is made in writing within twenty (20) days of sending of notice, 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 waiver in writing from these mineral owners to allow the drilling, the department may approve the application immediately.

(3) If any such mineral rights owner requests a hearing, it shall be held within 30 days of receipt of request, provided the request is made within 20 day period specified in section (2) of this rule. Any order by the State Geologist or board granting an exception to Special Rules under this rule shall 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 the pool.

(4) If a permittee proposes to change the proposed location of a well such that it will not comply with the set-back 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, ORS 520.095, ORS 522.019, ORS 522.305, ORS 522.405, ORS 522.434 & ORS 522.545

Stats. Implemented: ORS 520.095

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

632-010-0159

Underground Reservoirs for Natural Gas Storage

Rules providing for well spacing and proration of gas shall 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

632-010-0161

Compulsory Integration Orders

(1) Definitions. For purposes of this rule:

(a) "Costs" include:

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

(B) "Production costs" 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) "Constructive agreement". See definition of participating owner below;

(c) "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 as provided in subsection (6)(c) of this rule. 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 owners pro rata share of costs attributable to his interest, as computed in section (2) of this rule, in the spacing unit in exchange for a share of production and entitlements as provided in subsection (6)(c) of this rule, shall 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 shall 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 shall determine the interest of each mineral rights owner in the spacing unit by dividing:

(a) The number of surface acres subject to such 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 shall 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 shall be effective as of the date of initial production unless the Board establishes another date.

(6) Allocation of Costs and Earnings:

(a) The compulsory integration order shall provide that the operator and participating owners shall be treated as an entity. The operator-participating owners' entity shall be 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 construc-

tive agreements between the operator and participating owner(s) shall control the allocations of production and costs attributable to the operator-participating owners' entity;

(b) The compulsory integration order shall provide that each non-participating owner shall be entitled to a full share in production in proportion to his interest in the spacing unit subject to his royalty obligations, if any, and subsection (c) of this section;

(c) In addition to the above, the compulsory integration order shall provide that the operator-participating owners' entity first shall receive from each non-participating owner's share of production an entitlement in the amount of:

(A) Three hundred percent as a maximum of the amount of drilling costs attributable (pro rata on the basis of interests, as computed under section (2) of this rule) to the non-participating owner's interest; and

(B) Three hundred percent as a maximum of production costs attributable to the non-participating owner's interest on the same basis. Each such entitlement shall be allocated between the members of the operator-participating owners' entity according to their actual and constructive agreements.

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

**632-010-0162
Illegal Production**

No purchaser, producer, operator, or any other person shall 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

**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 520.015, 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 shall issue an order limiting production from such field or pool and specify rules applicable thereto for the allocation or distribution of allowable production therefrom as provided for in ORS 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

**632-010-0164
Commingleing of Production Prohibited**

The production from one pool shall 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

**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 operator 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 wells producing therefrom.

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

**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 shall 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 or other form acceptable to the department, a signed statement of all oil or gas purchased, or taken from any such well, lease, or pool during the preceding month.

(2) Producers: The producer or operator of each and every well or spacing unit shall 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 statement by an officer of the producer-corporation or operator, showing the amount of production made by each well.

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

(4) Information submitted in accordance with sections (1), (2), and (3) of this rule shall be 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

**632-010-0167
Maximum Efficient Rate Hearings**

The board on its own motion may, or at the request of any interested party shall, hold a hearings to determine the maximum efficient rate at which any pool in the state can produce oil and gas without waste.

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

**632-010-0168
Use of Earthen Reservoirs**

Oil shall 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

**632-010-0169
Natural Gas Policy Act Determination Procedures**

(1) The operator shall initiate all category determinations under the Natural Gas Policy Act of 1978 by filing with the State Geologist single legible copies of the documentation described below. A co-lessee may initiate such a determination if the operator refuses to take action upon written request of the operator or State Geologist:

(a) For new onshore reservoirs, an application under Section 102(c)(1)(C) of the Natural Gas Policy Act of 1978 shall be accompanied by:

(A) A completed Federal Energy Regulatory Commission Form 121;

(B) A completed application for permit to drill;

(C) Geological information sufficient to support a determination that the reservoir is a new onshore reservoir including all well logs, results of well potential tests, geologic maps and cross-sections showing the extent of the reservoir as known at the time of application, gas analyses, well completion reports, and directional drilling surveys if performed;

(D) If a board order or rule designates a new reservoir or grants new field status to a reservoir in which a well is completed, the applicant may reference such order or rule in lieu of paragraph (C) of this subsection;

(E) Well summary report (completion report);

(F) Monthly production reports, if there has been production;

(G) A statement by the operator under oath:

(i) That he has made, or has caused to be made pursuant to

his instructions, a diligent search of all records (including but not limited to production, state severance tax, and royalty payment records) which are reasonably available and contain information relevant to the determination of eligibility describing the search made, the records reviewed, the location of such records, and any records which he believes may contain information relevant to the determination but which he has determined are not reasonably available to him;

(ii) That on the basis of the results of this search and examination, he has concluded that to the best of his information, knowledge, and belief, the natural gas to be produced and for which he seeks determination is from a new onshore reservoir;

(iii) That he has no knowledge of any other information not described in the application which is inconsistent with his conclusion; and

(iv) The applicant, in his statement under oath, shall also answer, to the best of his information, knowledge and belief, and on the basis of the results of his search and examination, the following questions:

(I) Was natural gas produced in commercial quantities from the reservoir prior to April 20, 1977?

(II) Was the reservoir penetrated before April 20, 1977, by an old well from which natural gas or crude oil was produced in commercial quantities from any reservoir?

(III) If the question in sub-subparagraph (II) of this subparagraph is answered in the affirmative, could natural gas have been produced in commercial quantities from the reservoir before April 20, 1977?

(IV) If the natural gas is to be produced through an old well, were suitable facilities for the production and delivery to a pipeline of such natural gas in existence on April 20, 1977?

(b) For new natural gas, an application under section 102(c)(1)(B) of the Natural Gas Policy Act of 1978 shall be accompanied by:

(A) A completed Federal Energy Regulatory Commission Form 121;

(B) A completed application for permit to drill;

(C) Well summary reports (completion reports) and logs on the subject well;

(D) Monthly production reports, if there has been production;

(E) A statement by the applicant, under oath:

(i) That he has made or has caused to be made pursuant to his instructions, a diligent search of all records (including but not limited to production, state severance tax, and royalty payment records) which are reasonably available and contain information relevant to the determination of eligibility; describing the search made, the records reviewed, the location of such records, and a description of any records which he believes may contain information relevant to the determination but which he has determined are not reasonably available to him;

(ii) That on the basis of the results of this search and examination, he has concluded that to the best of his information, knowledge and belief, there is no marker well within a two and one-half (2.5) mile radius of the well for which he seeks a determination which has a completion location less than 1,000 feet above the completion location of the new well; and

(iii) That he has no knowledge of any information not described in the application which is inconsistent with his conclusion.

(c) For new onshore production wells an application under Section 103 of the Natural Gas Policy Act of 1978 shall be accompanied by:

(A) A completed Federal Energy Regulatory Commission Form 121;

(B) A completed application for permit to drill;

(C) A plat map showing the location of the subject well. If the subject well is within a spacing unit, the map shall also show the boundaries of the unit and any existing wells in the unit;

(D) Well summary report (completion report) and logs on the subject well and directional surveys, if performed;

(E) A statement by the applicant, under oath:

(i) That the surface drilling of the well for which he seeks a

determination was begun on or after February 19, 1977;

(ii) That the well satisfies any applicable federal and state well spacing requirements;

(iii) That, except as provided in paragraph (F) of this subsection, the well is not within a spacing unit:

(I) That was in existence at the time the surface drilling of the well began;

(II) That was applicable to the reservoir from which such natural gas is produced; and

(III) That was applied to any other well that either produced natural gas in commercial quantities or the surface drilling of which was begun before February 19, 1977, and was thereafter capable of producing natural gas in commercial quantities.

(iv) That on the basis of the documents submitted in the application, the applicant has concluded that to the best of his information, knowledge, and belief, the natural gas for which he seeks a determination is produced from a new onshore production well; and

(v) That the applicant has no knowledge of any information not described in the application which is inconsistent with his conclusion.

(F) If the applicant is seeking a determination with respect to a new well to be drilled into an existing spacing unit, the applicant must file all items required in paragraphs (A) through (E) of this subsection, except for the portion of the oath statement described in subparagraph (E)(iii) of this subsection and demonstrate by appropriate geological evidence that the new well is necessary to effectively and efficiently drain a portion of the reservoir covered by the spacing unit which cannot be effectively and efficiently drained by any existing well within the spacing unit.

(d) For stripper wells an application under section 108 of the Natural Gas Policy Act of 1978 shall be accompanied by:

(A) A completed Federal Energy Regulatory Commission Form 121;

(B) A completed application for permit to drill;

(C) A plat map showing the location of the subject well;

(D) Well summary report (completion report);

(E) Monthly production reports;

(F) Copies of all lithologic, electric, gamma, and other logs, drill test results and directional surveys, if performed;

(G) Name and address of operator and parties to purchase contracts;

(H) For cases of increased production resulting from enhanced recovery techniques, a description of the processes and equipment used for such recovery and the dates such processes or equipment were installed and used;

(I) For cases of seasonally affected production, a description of the nature of the fluctuations and the data used to determine the seasonal variation;

(J) A statement by the applicant, under oath, that to the best of his information, knowledge and belief, the information supplied and conclusions drawn are true and that the operator has no knowledge of any information not contained or described in the application which is inconsistent with any of his conclusions.

(2) The applicant shall, at the time of filing for a category determination, notify, by certified mail the purchasers and all working interest owners of such filing, and mail a list of the parties notified to the State Geologist. If more than one category determination is being requested for a single well, separate applications for each determination must be filed. The application, upon filing, shall be given a date.

(3) Applications containing logs which are confidential under the provisions of ORS 520.095(2) shall be kept confidential by the State Geologist.

(4) The State Geologist will review uncontested applications.

(5) Any person desiring to protest the granting of a determination shall send, within 15 days after receiving notification from the applicant, a written protest to the State Geologist and applicant by certified mail. The protest shall be supported by documentation in the same manner as the documentation submitted by the applicant. Contested applications will be referred to public hearings. The board will review the record of the hearing and issue a cate-

gory determination at its regularly scheduled meeting.

(6) The State Geologist shall give written notice of the category determination to the Federal Energy Regulatory Commission and any protestant within 15 days after the Board determination.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 3-1980, f. 2-29-80, ef. 3-1-80; 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

632-010-0170

Reservoir Surveys

By order of the board, periodic surveys may be made of the reservoirs in the state containing oil and/or gas. These surveys will be thorough and complete and shall be made under the supervision of the department. The condition of the reservoirs containing oil and/or gas and the practices and methods employed by the operators shall be investigated. Such investigation shall include but not be limited to: the volume and source of crude oil and natural gas; the reservoir 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 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

632-010-0172

Operators to Assist in Reservoir Surveys

All operators of oil and/or gas wells are required to authorize surveys and to assist the representatives of the board and the State Geologist in making any and all tests including bottom hole pressure and gas-oil ratio determinations, required by the Board or State Geologist 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

632-010-0174

Measurement of Potential Open-Flow of Gas Wells

The operator shall determine the potential open-flow of a gas well by U.S. Bureau of Mines back pressure method, or by other approved methods.

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

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 shall be monitored by the department to assure that:

- (1) Initial flow to the surface shall be accomplished during daylight hours.
- (2) Gas shall be flared during tests when feasible.
- (3) Proper safety precautions shall be 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

632-010-0178

Duration of Tests

The operator shall test for open-flow and pressure of completed gas wells shall be made at such intervals and shall continue for such time as may be necessary to effect accurate determination.

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

632-010-0182

Gas to be Metered

(1) Meters: All gas sold by a producer or sold shall be metered with an approved meter of sufficient capacity, provided that gas may be metered from a lease or unitized property as a whole, if it is shown that ratable taking can be maintained. Meters shall not be required for gas produced and used on the lease for development purposes and lease operations.

(2) Meter Charts and Records: Purchasers shall keep meter charts and gas purchased records in a permanent file, for a period of at least two years, and such information shall be made available to the department.

(3) Bypasses: Bypasses shall not be connected around meters or points where custody of the fluid is transferred in such manner as to permit the improper taking of gas.

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

632-010-0184

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

632-010-0186

Gas-Oil Ratio

No well shall be permitted to produce gas in excess of the maximum ratio determined for a pool unless all gas produced in excess thereof is returned to the pool from which it was produced.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 1, f. 1-27-54

632-010-0188

Gas-Oil Ratio Surveys and Reports

Gas-oil ratios and surveys shall 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

632-010-0190

Gas Utilization

(1) No hydrocarbon gas shall be permitted to escape to the atmosphere except for short periods during testing or flowing wells during workovers or repairs when such escape has been authorized by the department.

(2) Flaring of produced gas shall not be permitted except by order of the board.

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

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 Department of Environmental Quality and the Water Resources Department, the following conditions shall control the disposal of brine or salt water liquids, and any other means or methods of disposal which may be permitted:

(1) Disposal in Pits:

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

(b) Impounding of brine or salt water in earthen pits that are porous is prohibited. Earthen pits used for impounding brine or salt water shall be so constructed and maintained as to prevent the escape of fluid;

(c) The department shall have authority to condemn any pit which does not properly impound such water and order the disposal of such water into an underground formation, or by other authorized method;

(d) The level of brine or salt water in earthen pits shall at no time be permitted to rise above the lowest point of the ground surface level. All pits shall have a continuous embankment surrounding them sufficiently above the level of the surface to prevent surface water from running into the pit. Such embankment shall not be used to impound brine or salt water;

(e) At no time shall brine or salt water impounded in earthen pits be allowed to escape onto adjacent land or into waters of the state.

(2) Disposal by Injection: Salt water may also be disposed of by injection into the strata from which produced or into other proved salt water bearing strata.

(3) Ocean discharge of salt water may be permitted if water quality is acceptable and if such discharge is approved by the State Department of Environmental Quality through issuance of a National Pollutant Discharge Elimination System waste discharge permit.

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

632-010-0194**Water Injection and Water Flooding of Oil and Gas Properties**

(1) Application and Approval: The operator of any 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 State Geologist. No water injection or water flooding program shall be instituted until it has been authorized by the State Geologist.

(2) Casing and Cement: Wells used for the injection of water into the producing formation or repressuring wells shall be cased with sound casing so as not to permit leakage and the casing cemented in such manner 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 shall be verified and filed with the State Geologist and shall include:

(A) The location of the injection well;

(B) The location of all oil and gas wells, including abandoned and drilling 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 operators;

(J) Such other information as the State Geologist 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 shall be executed by all operators 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 shall notify the State Geologist stating the date of commencement;

(b) Within ten days after the discontinuance of water injection or water flooding operations, the applicant or the one in charge thereof shall notify the State Geologist of the date of such discontinuance and the reasons therefor;

(c) Before any injection well shall be abandoned, application shall be made to the State Geologist, and the same procedure shall be followed in the plugging of such well as provided for the plugging of oil and gas wells. See OAR 632-010-0198.

(5) Records. The operator of a water injection project shall keep an accurate record of:

(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. The information in subsections (a) - (c) of this section shall be made available to the State Geologist.

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

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 shall be drilled in such manner as shall protect the underground reservoir against pollution and against waste of natural gas.

(1) Application and Approval: Upon application to and approval by the State Geologist, the operator 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 shall be cased with sound casing so as not to permit leakage and the casing shall be cemented in a manner that damage will not be caused to oil, gas, or freshwater resources. All injection of gas shall 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 shall 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 shall be tested for mechanical integrity to determine there is no leak in the casing. The Department shall be notified to witness mechanical integrity tests.

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

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

(b) An application for gas injection of oil and gas properties shall be filed with the State Geologist in the form of a letter with supporting data including:

(A) The location of the injection well;

(B) The location and depth of all oil and gas wells, including abandoned and drilling wells and dry holes, and the names of mineral rights owners within a one-half .5 mile radius 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 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 operators;

(L) Such other information as the State Geologist may require to ascertain whether the gas injection plan meets the requirements of law and safety.

(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;

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

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

(a) At least ten (10) days prior to commencement of gas injection operations, the applicant shall notify the State Geologist stating the date of commencement;

(b) Within ten (10) days after the discontinuance of gas injection operations, the applicant or the one in charge of the operations shall notify the State Geologist of the date of discontinuance and the reasons therefor;

(c) Before any injection well shall be abandoned, application shall be made to the State Geologist and the same procedure shall be followed in the plugging of such well as provided for the plugging of oil and gas wells. See OAR 632-010-0198;

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

(5) Records: The operator of the gas injection project shall keep an accurate record of:

(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. The information in subsections (a) - (d) of this section shall be made available to the State Geologist or representative.

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

632-010-0198

Abandonment, Unlawful Abandonment, Suspension, Well Plugging

(1) Oil, Gas, and Water to be Protected: Before any oil and/or gas well shall be suspended or abandoned, the operator shall use such means, methods, and procedure necessary to prevent water from entering any oil- or gas-bearing formation, and to protect any underground or surface water that is suitable for domestic or irrigation purposes from waste, downward drainage, harmful infiltration and addition of deleterious substances.

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

(3) Abandonment: Before any work is commenced to abandon any well drilled for oil and/or gas, the permittee shall give written or verbal notice to the department of his intention to abandon such well. If verbal notice is given but plugging is not planned within ten days, written notice must also be given within ten days. The notice shall be upon forms supplied by the department and shall contain the present condition of the well, proposed work, and such other information as reasonably may be required by the department.

(4) 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 thirty (30) days from the date specified in such approval of suspension, the well is unlawfully abandoned unless the permittee has obtained from the department in writing an extension of time of such suspension. Written application showing good cause is required for the extension to be considered;

(b) If a well is left idle for a period of thirty (30) consecutive days without a written request for suspended status and approved downhole plugs in place, the well is unlawfully abandoned;

(c) Upon any unlawful abandonment as defined in these rules, written notice thereof shall be sent by certified mail both to such permittee at his last known address in the records of the department and to the permittee's surety. The department may then proceed against the permittee and the permittee's surety;

(d) All wells unlawfully abandoned as provided in this section shall be plugged, suspended, or otherwise repaired by the department as required by law and by these rules, using the surety bond, if sufficient. The department may recover its expenses in suspending, repairing, plugging, and site reclamation from the proceeds of the bond.

(5) Plugging Methods and Procedure: The methods and procedure for plugging a well shall be as follows:

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

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

(c) When there is open hole below the base of any casing, a cement plug not less than 100 feet in length shall be placed to extend at least 50 feet above and 50 feet below the base of the casing;

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

(e) The operator shall have the option as to the method of placing cement in the hole by:

- (A) Dump bailer;
- (B) Pump through tubing or drill pipe;
- (C) Other method approved by the department.

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

(6) The operator shall remove all gravel and debris from the site, shall backfill sumps, and shall restore the site, including revegetation.

(7) Affidavit on completion: Within 60 days after the plugging of any well, the operator shall file a written statement with the department setting forth in detail the method used in plugging the well.

(8) Wells Used for Fresh Water:

(a) When the drilled well to be plugged 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, however, authorization for use of any such well shall be obtained from the Director of the Water Resources Department;

(b) Application for leaving the well partially unplugged as a freshwater well shall be made to the department by the landowner in writing, together with evidence of a permit and bond from the Director of the Water Resources Department or that officer's statement that neither a permit nor a bond is required;

(c) The operator shall leave the freshwater well in a condition approved by the department.

(9) The bond furnished by permittee shall not be released until all procedures required by these rules have been completed and the department in writing has authorized such release.

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

**632-010-0205
Drilling Bond**

(1)(a) Every person who engages in the drilling, redrilling, or reworking of any well, stratigraphic test hole, service well or disposal well shall file with the State Geologist on a form provided by the State Geologist a surety bond in the sum of \$10,000 for each well drilled, redrilled, deepened, or reworked to a depth less than 2,000 feet, \$15,000 for each well to a depth of 2,000 to 5,000 feet, or \$25,000 for each well to a depth greater than 5,000 feet. The bond shall be filed with the State Geologist at the time of the filing of the notice of intention to drill, redrill, deepen, or rework as required in OAR 632-010-0010. Bonds may be submitted individually for each well or a blanket bond may be filed as described in (b) below.

(b) In multi-well operations, a blanket bond in the minimum amount of \$100,000 may be filed in lieu of individual bonds. The blanket bond amount shall be computed as the sum of the applicable individual bond amounts required for each well, reduced by bond amounts on wells that are granted exclusion from the computation. The State Geologist may exclude the following wells from the blanket bond computation:

(A) Wells that have a gross annual wellhead production in dollars during the past twelve months that is greater than the amount of the required individual well bond; or

(B) Wells that have been used as disposal or service wells in the past twelve months. It is the responsibility of the well operator to file for exclusions annually prior to the permit anniversary date.

(c) The bond shall be executed by the operator, as principal, and by a company authorized to do business as a surety insurer in the State of Oregon, as surety, and shall be conditioned upon the faithful compliance by the principal with the statutes, rules, and orders of the Department of Geology and Mineral Industries and the board. The department, in its discretion, may accept an irrevocable letter of credit or other form of financial security in lieu of a bond.

(2) Any bond submitted as required by this section may, with the consent of the State Geologist, be terminated and cancelled

and the surety relieved of all obligations thereunder. However, the State Geologist shall not consent to termination and cancellation of any bond until the well or wells covered by such bond have been properly abandoned including site reclamation, with the approval of the State Geologist, or another valid bond has been submitted and approved.

(3) For those applications concerning oil and gas wells on federal lands, the State Geologist may, in order to avoid unnecessary duplication, waive the requirements of sections (1) and (2) of this rule if the applicant submits suitable proof of compliance with federal bond requirements, and if State regulatory concerns are addressed to the satisfaction of the State Geologist in the use and release of the Federal Bond.

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

**632-010-0210
Disposal of Solid and Liquid Wastes**

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

(b) All wells used for disposal of solid and liquid wastes shall be equipped with tubing and packers and shall be tested for mechanical integrity at least every five years to determine that there is no leak in the casing, tubing or packer, 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 tubing and casing annuli to demonstrate integrity of casing, tubing, and packer. 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 shall be notified to witness mechanical integrity tests, and result shall be submitted as required by OAR 632-010-0017

(2) Once field development is initiated a separate permit is required from the State 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

**632-010-0220
Measurement of Oil**

The volume of production of oil shall 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) shall be determined to the satisfaction of the department, and the observed gross volume of oil shall be corrected to exclude the entire volume of such impurities.

(2) Temperature Correction: The observed volume of oil corrected for impurities shall be further corrected to the standard volume at 60 degrees F. in accordance with A.S.T.M. Standards or any revisions thereof approved by the department.

(3) Gravity Determination: The gravity of oil at 60 degrees F. shall 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

Special Rules, Mist Gas Field

632-010-0225

Spacing Plan

(1) For purposes of this section, the Mist Gas Field shall refer to the following area: sections 5, 6, 7, 8, 17, 18, 19, 20, 28 through 34 of T. 5 N., R. 3 W., sections 1 through 18, 20 through 29, 32 through 36 of T. 5 N., R. 4 W., sections 1, 2, 11, 12, of T. 5 N., R. 5 W., sections 29 through 32 of T. 6 N., R. 3 W., sections 3 through 10, 14 through 23, 25 through 36, of T. 6 N., R. 4 W., sections 1 through 36 of T. 6 N., R. 5 W., sections 1 and 2 of T. 6 N., R. 6 W., section 31 of T. 7 N., R. 4 W., sections 25 through 36 of T. 7 N., R. 5 W., and sections 25, 26, 35, 36 of T. 7 N., R. 6 W., W.M.

(2) The minimum spacing for gas wells in the Mist Field shall be 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 shall be 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

632-010-0230

Location of Wells

The completion location of each well permitted to be drilled on any spacing unit shall be the location of the well at the top of the producing horizon. For gas wells the completion location of the well shall 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

632-010-0235

Exceptions

The board may grant exceptions to the above field rules after holding a hearing when necessary on the basis of 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

DIVISION 15

INFORMATION AND SEISMIC TEST HOLES

632-015-0005

Information and Seismic Test Holes

These rules provide procedures for seismic and information hole operations, bonding requirements, plugging requirements, and ground water protection and surface reclamation for shallow holes or wells less than 500 feet deep drilled in oil and gas exploration operations in Oregon.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90

632-015-0010

Definitions

As used in these rules, unless the context otherwise requires:

(1) "Department" shall mean the Oregon Department of Geology and Mineral Industries.

(2) "Drilling Records" include a map, summary and a report of the plugging and reclamation of any hole.

(3) "Ground Water" 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.

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

(5) "Nonmetallic Plug" means a plugging device made of nonmetallic and noncorrosive material which 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.

(6) "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.

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

(8) "Seismic Operations" means operations conducted by means of drilling seismic shot holes for the placing and detonating of explosives.

(9) "Shallow Hole" means an information hole or seismic shot hole drilled to a depth of less than 500 feet.

(10) "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 State Geologist.

(11) "Sump" means an earthen containment area or a tank or other container 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

632-015-0015

Application and Permit to Conduct Seismic and Information Hole Operations

(1) No person shall conduct seismic or information hole operations in Oregon until that person has applied for and received a permit from the Department. A nonrefundable fee of \$100 shall accompany any application. The application shall be submitted on a form provided by the department.

(2) The application for a permit for seismic or information hole operations shall 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 shall be included. The application shall be accompanied by a map that shows 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 shallow holes will be located;

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

(c) In the case of a seismic shot hole, the name, permanent address, and business phone number of the seismic explorer, if different than 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;

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

(3) The department shall circulate each completed application to the county(ies), without the details of the location of the seismic shot hole or information hole operations, in which the

operations may be located. The application shall also be circulated to the Department of Water Resources (WRD), Division of State Lands (DSL), and other appropriate agencies.

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

(5) If upon receipt of the completed application and compliance with bonding requirements in OAR 632-015-0025, the department determines that the proposed seismic operation or information hole operation (including the method of drilling, the plugging and reclamation of the holes) complies with Oregon statutes, Oregon Administrative Rules and any applicable orders of the board, and does not fit in any of the categories specified in section (6) of this rule, the department shall issue the permit within twenty-one (21) days from the date of such determination.

(6) The department shall deny a permit if:

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

(b) The applicant currently has an unlawfully abandoned seismic shot hole or information hole in Oregon; or

(c) The applicant has not submitted all plugging records from a previous seismic or information hole operation conducted after the effective date of these rules; or

(d) The applicant currently has a business relationship with respect to operations in Oregon with a geophysical contractor, driller or other explorer that currently has an unlawfully abandoned seismic shot hole or information hole in Oregon or has not submitted plugging records from a previous seismic or information hole operation in the state of Oregon.

(7) If the department denies a permit application, the department shall notify the applicant in writing within thirty (30) days from the date of receipt of a completed application of the reasons for denial. Any person adversely affected by a decision of the department may appeal pursuant to OAR 632-015-0060.

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

(9) The department may revoke a permit if the department determines that any of the grounds for denying a permit now exist, as specified in section (6) 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.

(10) Seismic or information hole operations shall commence within one year from the date of issuance of the permit or such permit shall become invalid. The permit may be extended by the department 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

632-015-0020

Seismic Shot Hole Operations

(1) Seismic shot hole operations shall not be conducted within one-eighth (1/8) mile of any existing building, water well, flowing spring, stock water pipeline, sewer line, utility tunnel, water or gas line, unless an exception is granted by the department after the applicant demonstrates that the operation presents no significant danger.

(2) Seismic shot holes encountering ground water must be cased and cemented or backfilled to 10 feet above the ground water before explosives are used.

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

632-015-0025

Bond Requirements

(1) Before a permit may be issued for seismic shot hole or information hole operations, the applicant shall file with and have approved by the department, a statewide bond, cash, or assignment of deposit, in the amount of \$50,000. The bond shall be executed by such person authorized to do business in the State of Oregon if required by the Department of Commerce, as principal, and by a surety company authorized to do business in the State of Oregon, as surety, conditioned upon the faithful compliance by the principal with Oregon statutes, Oregon Administrative Rules, any applicable order of the board, and permit conditions.

(2) If the applicant has on file with the department an existing statewide blanket bond in the amount of \$150,000 or more, the department may accept this in satisfaction of the requirements of section (1) of this rule.

(3) Any bond 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 bond until the well or wells covered by such bond have been properly abandoned, or another valid bond has been submitted and approved.

(4) For those applications concerning seismic or information holes on federal lands, the department may, in order to avoid duplication, waive the requirements of sections (1) and (2) of this rule if the applicant submits satisfactory proof of compliance with federal bond requirements, and if State regulatory concerns are addressed to the satisfaction of the department in the use and release of the federal bond.

(5) Following completion of operations, the permittee may request that the department release the bond. No bond shall be released until the department has determined that the permittee has complied with Oregon statutes, Oregon Administrative Rules, any applicable order of the board, and permit conditions.

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

632-015-0030

Compliance with Law

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

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90

632-015-0035

Notices

The permittee for seismic shot hole or information hole operations shall give the department a minimum of 24 hours advance notice of plugging operations.

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

632-015-0040

Plugging Requirements

The hole plugging requirements in this rule are for the protection of ground water in Oregon. The intent is to prevent hydraulic communication between aquifers, ground water pollution, and waste of ground water.

(1) All seismic shot holes and information holes shall be plugged and abandoned in a manner that prevents vertical movement of water in the hole. The minimum procedures and requirements in this rule apply unless they are not adequate to prevent

vertical movement of water in the hole, in which case the permittee shall propose and receive authorization from the department for an alternate plugging and abandonment plan and shall comply with that plan.

(2) Cap leads shall be cut off below ground level following detonation of downhole charges.

(a) Except as provided in sections (4) and (8) of this rule, when water is used in conjunction with the drilling of a hole, but no ground water is encountered in the hole, the hole shall be filled with coarse ground bentonite and shall not be filled with cuttings or other solids;

(b) With the prior approval of the department, any other suitable plugging material commonly used in the oil and gas industry may be used to plug a hole, as long as it prevents the vertical movement of water in the hole.

(3)(a) When there are drilling fluids in the hole to be plugged, and no ground water is encountered in the hole, the hole shall be filled with coarse ground bentonite from the bottom up to a depth above the standing water level;

(b) A nonmetallic plug shall be set at a depth of three feet below ground surface;

(c) Cuttings shall be added from the top of the bentonite to the surface. Cuttings added above the nonmetallic plug shall be tamped.

(4)(a) When drilling with air only, or in dry holes where no ground water is encountered, a plugging may be accomplished by returning the cuttings to the hole, tamping the returned cuttings to three feet below the ground surface, and setting the nonmetallic plug topped with more cuttings and soil in the same manner as section (3) of this rule;

(b) A small mound shall be left over the hole for settling allowance.

(c) With the prior approval of the State Geologist, plugging material commonly used in the industry may be substituted if inadequate cuttings are available.

(5) Any hole shall be plugged and abandoned in accordance with these rules as soon as practical, and in any event shall not be left unplugged for greater than 30 days from the completion of operations without written approval of the State Geologist.

(6)(a) A dry seismic shot hole that does not encounter ground water and caves in after detonation of an explosive charge shall be abandoned by tamping the hole and placing a mound over the hole for settling as provided in section (4) of this rule;

(b) A seismic shot hole that encounters ground water and caves in after detonation of an explosive charge shall provide for the protection of ground water by reopening the hole and plugging with cement as provided in section (10) of this rule, and by placing a mound over the hole for settling as provided in section (4) of this rule.

(7) Any drilling fluid or cuttings which are deposited on the surface around the seismic hole or information hole shall be raked or otherwise spread so that the drilling fluid or cuttings do not exceed two inches of the pre-existing land surface, except for a small mound left for settling.

(8)(a) If ground water is encountered in the drilling of any hole, cement, as described in section (10) of this rule, shall be used to seal off the water flow to prevent cross-flow, erosion, waste, or contamination of ground water. The hole shall be cemented from the bottom to the top through tubing;

(b) If ground water flowing to the surface is encountered in a seismic hole, the hole shall be sealed from the bottom to a depth three feet (3 ft) from the ground surface with cement as described in section (10) of this rule. Bentonite as described in section (9) of this rule, shall be added to the top three feet of the hole.

(9) Bentonite materials used in plugging of a hole shall be high-swelling sodium bentonite. The bentonite shall be mixed, diluted, prepared and placed in the hole in a manner that prevents vertical cross-flow of water between aquifers in the hole. Intervals relying on bentonite for a seal shall not contain cuttings or other solids.

(10) When using cement grout as the sealing material in a hole, it shall meet the following requirements:

(a) Cement grout used to seal a hole shall be composed of a uniformly mixed slurry of Portland cement or High Early Strength Type III Portland cement, and potable water, or High-alumina cement, and potable water mixed in the following proportions (Type of cement - Gallons of Water per 94 pound sack of Dry Cement, respectively):

(A) Portland Cement - 4.5 to 6;

(B) High Early Strength Type III Portland Cement - 5.5 to 6.5;

(C) High-alumina Cement - 4.5 to 6.

(b) Additives to increase fluidity, reduce shrinkage, or control time of set may be used in a cement grout mixture. Expanding agents such as aluminum powder may be used at a rate not exceeding .075 ounce (one level teaspoon) per sack of dry cement. The powder shall not contain polishing agents. Bentonite clay may be added to a cement grout mixture, but shall not exceed five percent by weight of dry cement. Calcium chloride may be added to a Portland cement grout to accelerate the set but shall not exceed two pounds per sack of dry cement. High-alumina cement and Portland cement of any type shall not be mixed together for use in a hole;

(c) With prior written approval of the department, cement types other than those provided in these rules may be used as a sealing material in a well;

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

(e) Cement grout used as a sealing material shall 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 shall be withdrawn as the grout is placed.

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

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

Landowners may convert the hole to a water well by filing an application and bond with, and securing approval from, the Oregon Department of Water Resources. Proper water well construction standards of the Oregon Department of Water Resources shall be met. The hole shall not be released by the Department from the requirements of ORS 520.005 to 520.991 until such conversion is accomplished.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90

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

(1) The permittee shall file drilling records with the department within thirty (30) days from the date of completion of abandonment of any well.

(2) The drilling records shall:

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

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

(3) The drilling records shall be kept confidential by the department for a period of two (2) years from the date of the completion of operations.

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

**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.

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

(3) In no event shall the contents of a sump be allowed to:

(a) Significantly affect streams, artificial canals or waterways, ground water, lakes, or rivers.

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

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

(5) The affected surface lands shall 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 shall not be limited to, replanting or reseeding of affected land for return to agricultural or forestry productivity.

Stat. Auth.: ORS 520

Stats. Implemented: ORS 520.095

Hist.: GMI 2-1990, f. 8-9-90, cert. ef. 8-31-90

632-015-0060

Appeals

(1) Prior to the initiation of an appeal of any departmental order pursuant to ORS Chapter 520 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 seven (7) days of receipt of such a request. Thereafter, within thirty (30) days of the date of the State Geologist's decision, the applicant or permittee may request a contested case hearing by the board.

(2) An applicant or permittee requesting a contested 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.

(3) The board shall hear the matter in accordance with ORS Chapter 520 and the Attorney General's Model Rules of Procedure.

(4) Any person adversely affected by the board's order may apply for a rehearing pursuant to ORS 520.135 or may obtain judicial review pursuant to ORS Chapter 183.

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

DIVISION 20

GEOHERMAL REGULATIONS

632-020-0005

Jurisdiction and Authority

(1) The 1971 Geothermal Resources Act authorized 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. The Act also gives the department responsibility for regulating re-injection of geothermal fluids into underground reservoirs within prescribed limits of ORS 522.019(2) in a manner which will not be detrimental to beneficial use of waters of the state.

(2) The Governing Board of the department shall:

(a) Administer and enforce the provisions of the Geothermal Resources Act; and

(b) In accordance with the applicable provisions of ORS Chapter 183, adopt rules and regulations and issue orders that it may deem necessary in carrying out the provisions of the Geother-

mal Resources act.

(3) The permittee shall in addition to complying with the 1971 Geothermal Act and these regulations comply with applicable laws and regulations of the Water Resources Department, Department of Environmental Quality, and any other agency having jurisdiction and control in the field of natural resources within the State of Oregon.

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

632-020-0010

Definitions

(1) "Abandonment" shall mean the condition of a well when it is permanently plugged to the satisfaction of the State Geologist.

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

(3) "Blow-Out" means an uncontrolled escape of fluids, such as from a drilling well when high formation pressure is encountered.

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

(5) "By-Products" means any mineral or minerals, exclusive of helium or oil, hydrocarbon gas, or other hydrocarbon substances, which are found in solution or in association with geothermal resources and which have a value of less than 75 percent of the value of the geothermal resource or are not, because of quantity, quality, or technical difficulties in extraction and production, of sufficient value to warrant extraction and production by themselves.

(6) "Contamination" means any alteration of the physical, chemical, or biological properties of surface or groundwaters of the state; such alteration may not prevent the beneficial use of such waters.

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

(8) "Fresh Water" means water which is used or could be used for irrigation or domestic purposes.

(9) "Geothermal Area" means any parcel of land that is, or reasonably appears to be underlain by Geothermal Resources.

(10) "Geothermal Reinjection Well" means any well or converted well constructed to dispose of geothermal fluids derived from geothermal resources into an underground reservoir.

(11) "Geothermal well" includes any well drilled to explore for or produce geothermal resources from any depth, any geothermal injection well as defined in section (10) of this rule, and any temperature gradient or geophysical test well deeper than 2,000 feet.

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

(13) "Operator" means the person:

(a) Who possesses the legal right to drill a geothermal well;

(b) Who has obtained a drilling permit pursuant to ORS 522.135; or

(c) Who possesses the legal right to operate a completed geothermal well as described by ORS 522.185.

(14) "Owner" means the person who has the right to drill geothermal wells and/or prospect wells, or to appropriate the production from a completed geothermal well, either for himself or for himself and others.

(15) "Permittee" means owner or operator.

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

(17) "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 which 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.

(18) "Prospect Well" means any well or hole drilled as a geophysical test well, or temperature gradient test well, less than 2,000 feet in depth, and drilled in prospecting for geothermal resources. "Prospect Well" does not include a geothermal well as defined in section (11) of this rule.

(19) "Reservoir" means an aquifer or combination of aquifers or zones containing a common geothermal or groundwater resource.

(20) "Royalty Interest" means a right or interest in geothermal resources produced from land or in the proceeds of the first sale of those resources.

(21) "State Geologist" means the director of the Department of Geology and Mineral Industries.

(22) "Unit Agreement" means an agreement or plan of development and operation under the provisions of ORS 308.370, 522.015, 522.405 to 522.545, 522.815, 522.990 and this Division of OAR 632 for the production and/or use of geothermal resources in separately owned interests as a single consolidated unit and which provides for the allocation of costs and benefits.

(23) "Unit Operator" means the person designated in the unit agreement to manage and conduct the unit agreement.

(24) "Waste" means any physical waste, deleterious effects on surface and groundwater, including but not limited to underground waste resulting from the inefficient, excessive or improper use or dissipation of reservoir energy or resulting from the location, spacing, drilling, equipping, operation, or production of a geothermal resource well or prospect well in such manner that reduces or tends to reduce the ultimate economic recovery of the geothermal resources within a reservoir; and surface waste resulting from the location, spacing, drilling, equipping, operation, or production of a geothermal resource well or prospect well in such a manner that causes or tends to cause the unnecessary or excessive surface loss or destruction of geothermal resources released from the reservoir.

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

632-020-0015

Inspection and Supervision

The State Geologist or his representative shall 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

632-020-0020

General Rules

General rules shall be statewide in application unless otherwise specifically stated and applicable to all lands within the jurisdiction of the State of Oregon.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4, f. 7-20-72, ef. 8-1-72

632-020-0025

Supremacy of Special Rules

Special rules will be issued when required and shall 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

632-020-0030

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

(1) The owner or operator of any geothermal well or prospect well before commencing the drilling, redrilling, deepening, or altering of casing of any geothermal well or prospect well shall file with the State Geologist or representative a written application for permit to drill, redrill, deepen, or alter casing accompanied by a nonrefundable fee of \$250 for each geothermal well or program of prospect wells. The application shall contain the following:

(a) The location(s) and ground elevation(s) of the proposed well(s). The location shall include the township, range, and section, together with the footage measurement from a section or quarter section corner. For prospect wells, a map may replace the footage measurements;

(b) The number or other designation, approved by the State Geologist, by which the well(s) shall be known;

(c) The proposed geologic objectives and proposed well depth(s);

(d) Such other pertinent data as the State Geologist may require on forms supplied by the department or in other form acceptable to the State Geologist. The information on the permit application shall be non-confidential, with the exception of Prospect Well locations.

(2) Circulation of the application to drill shall be in accordance with ORS 522.125(1).

(3) Upon receipt of the application, the fee, the bond required under OAR 632-020-0035, and after the comment period provided for by ORS 522.125, the State Geologist or representative will make a determination and issue such person a permit to drill, unless the drilling of the geothermal well or prospect well is contrary to law, rule, or order of the Board. The drilling, redrilling, deepening, or altering of casing of a geothermal well or prospect well is prohibited until a permit is obtained. If the permit is disallowed, the State Geologist or representative will immediately notify the person in writing giving the reasons therefor.

(4) Drilling, redrilling, deepening or altering casing operations must commence within one year from the date of issuance of the permit or such permit shall become invalid. The permit may be extended by the State Geologist for a maximum of an additional one year upon receipt of written request from the permittee before the expiration date giving reasons for an extension. The request shall be accompanied by a nonrefundable fee of \$250.

(5) The issuance of a permit is not a finding of compliance with the Statewide Planning Goals (ORS 197.225) or compatibility with the acknowledged comprehensive plan. The applicant must receive land use approval from the affected local government supported by written findings as provided in OAR 632-001-0015(5)(b)(A) before the use can commence.

(6) After completion, suspension, or abandonment of any well, the provisions of this section shall also apply to the deepening, redrilling, or altering casing of 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 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

632-020-0031

Active Permits

The permittee of any geothermal well or prospect well permit under which a well has been drilled and not abandoned shall provide an annual nonrefundable fee of \$500 on or before the anniversary of the issuance date of each active permit issued by the State Geologist. 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

His.: GMI 1-1991, f. 9-5-91, cert. ef. 9-6-91; GMI 2-1995, f. & cert. ef. 3-10-95

632-020-0035

Drilling Bond

(1) A permit for the drilling, re-drilling, deepening or altering of casing of a prospect well shall not be granted until the applicant has complied with the requirements of ORS 522.075 relating to surety bonds and security deposits.

(2) A permit for the drilling, re-drilling, deepening or altering of casing of a geothermal well shall not be granted until the applicant has complied with the requirements of ORS 522.145 relating to surety bonds and security deposits.

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

632-020-0040

Assignment, Transfers of Ownership

The owner or operator of an existing and/or proposed geothermal or prospect well shall notify the department in writing in such form as the department may direct, of the sale, assignment, transfer, conveyance, or exchange of such well and/or a change in the lessor of the land upon which such well is situated within five days thereof. Each such notice shall contain the following:

(1) The name and address of the person to whom such well or mineral rights was sold, assigned, transferred, conveyed, or exchanged.

(2) The name and location of such well.

(3) The date of such sale, assignment, transfer, conveyance, or exchange.

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

632-020-0045

Notice of Change in Ownership

Every person who acquires the ownership or the right of operation of a well or proposed well as described by OAR 632-020-0040 shall within five days after acquiring such well or proposed well, notify the State Geologist or representative in writing of the newly acquired ownership or right of operation. Each notice shall contain the following:

(1) The name and address of the person from whom the well or proposed well was acquired.

(2) The name and location of such well.

(3) The date of such acquisition.

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

632-020-0055

Proper Completion and Abandonment

(1) A geothermal well or prospect well is properly completed for the purposes of this chapter when it is demonstrated that the well is capable of production, flow testing, monitoring temperature, pressure or other subsurface conditions, injecting fluids, or other approved purpose, and the person engaged in drilling, re-drilling, deepening, or altering casing of such well has shown to the satisfaction of the State Geologist that the manner of conducting these activities is satisfactory.

(2) A well shall be considered properly abandoned, for the purpose of this chapter, when the conditions of ORS 522.005 to 522.990 and these rules are fulfilled and the person drilling, re-drilling, deepening or altering casing of such well has shown to the satisfaction of the State Geologist that all proper steps have been taken to protect groundwater and surface water from pollution resulting from the abandoned well and to prevent the escape

of all fluids to the surface.

(3) Proper completion and abandonment shall be conditioned also upon adequate protection of the environment and of aesthetic qualities of the surface in the area of operation.

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

632-020-0060

Filing of Well Records, Confidentiality

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

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

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

(2) The operator of a prospect well shall 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 shall not be disclosed to the public for four years from the date of completion, suspension or abandonment of the well, whichever occurs first. Thereafter, records shall be available for public inspection under the provisions of ORS 192.410 to 192.505. If an operator claims that any record continues to be exempt from disclosure as a trade secret under ORS 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

632-020-0065

Sundry Applications and Reports

(1) A written application for a permit to do work or to change plans previously approved must be filed with the State Geologist unless otherwise directed, and must be approved by him before work is begun. Approval or denial must be given within 15 days by the State Geologist. If, in case of emergency, an application is submitted orally or by wire, and approval is obtained, the transaction shall be confirmed in writing. A subsequent report of the work performed must also be filed with the State Geologist.

(2) Before the repairing or performance of work to permanently alter the casing of a well, an application setting forth in detail the proposed work must be filed with, and approved by, the State Geologist. 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

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, shall 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 Section, Township, and Range.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305
 Hist.: GMI 4, f. 7-20-72, ef. 8-1-72

1983, f. & ef. 9-30-83

632-020-0090
Noise Abatement

The lessee shall minimize noise when conducting air drilling operations or when the well is allowed to produce while drilling or drilling is conducted. Welfare of the operating personnel and the public must not be affected as a consequence of the noise created by the expanding gases. The method and degree of noise abatement shall be as approved by the department and shall comply with the regulations and standards pertaining thereto 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

632-020-0095
Casing Requirements

(1) The owner or operator of any geothermal well or prospect well shall properly case such well with adequate grade casing and cement such casing where necessary to provide adequate anchor for blow-out preventers. Design of casings shall 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 shall 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 shall be set to a minimum of 300 feet, unless otherwise permitted by the department

(2) The owner or operator of any such well shall shut out pollution from strata containing water used for irrigation or domestic purposes and from surface water used for such purposes. The operator of any well drilled for geothermal resources which penetrates a usable fresh water aquifer shall be required to 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., shall 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 shall be cased and sealed off to prevent effectively the migration of formation fluids to other areas. Such casing and sealing off shall be effected and tested in such manner and by such methods and means as may be prescribed by the department.

(5) Cements used in cementing casing and sealing formations shall be of 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

632-020-0100
Removal of Casings

No person shall remove a casing, or any part thereof, from any geothermal well or prospect well without applying in advance and obtaining approval in writing from the State Geologist or representative.

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-

632-020-0105
Directional Drilling

(1) The maximum point at which a well penetrates the producing formation shall 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 correct other mechanical difficulties.

(2) Except for the purposes of straightening the hole, sidetracking junk, or correcting mechanical difficulties as provided in this rule, no well shall be intentionally deviated from the vertical unless the operator thereof shall first file application and obtain a permit from the State Geologist. If drilling is in progress, the operator must notify the department immediately of the deviation of the hole or his intention to deviate the hole. When an operator follows this procedure, he must file an application as soon as practicable.

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

632-020-0110
Servicing Orders

Whenever the State Geologist or representative 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 abandoned, and the operator, owner, or designated agent of either, serves written notice, either personally or by mail, addressed to the State Geologist or representative, requesting that a definite order be made upon such subject, the State Geologist or representative shall, 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 State Geologist 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

632-020-0115
Measurement of Geothermal Resources

The lessee shall 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 shall be determined in accordance with the standard practices, procedures, and specifications generally used in industry. For wells on federal land, the department will establish acceptable methods in concert with the Federal Authorized Officer.

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

632-020-0120
Production Reports

The owner or operator of any well producing geothermal resources shall file with the department before the 20th day of each month a statement of the geothermal resources production from such well during the preceding calendar month. Such report shall be submitted on such forms and in such manner as may be prescribed by 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-

632-020-0125**Abandonment**

(1) Notice of Intention. Protection of water and geothermal resources:

(a) Before any operation is commenced to abandon any geothermal well, the owner or operator of such well shall apply to the department for a permit to abandon the well, giving the condition of the well and the proposed method of abandonment;

(b) The owner or operator shall notify the department at least 24 hours before the proposed date for the commencement of abandonment operations. Notification may be made by phone, but must be followed by written application. The department shall either approve or deny the application within ten days. A representative of the department may be present during any abandonment operation, and shall approve the procedure if found to be satisfactory;

(c) The owner or operator of such well shall furnish the department any additional information that may be requested regarding the condition of the well and the proposed method of abandonment, at any time between the filing of the notice of intention to abandon the well and the completion of abandonment.

(2) Geothermal resource, environment, and water resources to be protected:

(a) Before any well or any producing horizon encountered therein shall be abandoned, the owner or operator shall use such means, methods, and procedure as may be necessary to prevent water from entering any geothermal resources bearing formation, and to protect any underground or surface water that is suitable for domestic or irrigation purposes from waste, downward drainage, harmful infiltration, and addition of deleterious substances;

(b) Prior to granting approval for final abandonment of any well drilled for geothermal resources, the department shall determine that the site be restored to as near its original state as possible.

(3) Observation status. Suspension, Unlawful Abandonment, Removal of Equipment:

(a) At the time of permit issuance, the department may grant provisional observation status to prospect or geothermal wells if the wells are designed to be constructed and maintained as information gathering wells for an extended period of time. After drilling activities for such a well are completed, the board may grant observation status for a stated period of time;

(b) The board may authorize a permittee to suspend operations or remove equipment from a well for the period stated in the Board's written authorization, given upon written application of the permittee and his or its affidavit showing good cause. The period of suspension may be extended by the board, upon written application made before expiration of the previously authorized suspension, accompanied by affidavit of the permittee showing good cause for granting of such extension;

(c) After operations on or at a well have been suspended with the approval of the board pursuant to subsection (a) of this section, if operations are not resumed within six months from the date specified in such approval of suspension, an intention to abandon and unlawful abandonment shall be presumed unless the permittee has obtained from the Board an extension of time of such suspension, upon his or its written application and affidavit showing good cause for the granting of such extension;

(d) Whenever operations on or at any well shall have been suspended for a period of six months without compliance with these regulations, the well shall be presumed unlawfully abandoned;

(e) A well shall be deemed unlawfully abandoned if, without notice given to the board as required by these rules, any drilling or producing equipment is removed;

(f) Any unlawful abandonment under these regulations shall be declared by the Board and such declaration of unlawful abandonment shall be entered in the board minutes and written notice thereof delivered by registered mail both to such permittee at the last known post office address as disclosed by the records of the

board, to the registered agent of the permittee, if any, and to the permittee's surety; and the board may thereafter proceed against the permittee and permittee's surety;

(g) All wells abandoned or declared abandoned as herein provided shall be plugged as required by law and by these regulations.

(4) Plugging Methods and Procedure, Geothermal Wells:

(a) The well shall be filled with mud-laden fluid from bottom to top consisting of mud weighing 9.0 pounds per gallon of not less than 36 viscosity (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 shall be placed which extends either from the bottom of the well or from a point 50 feet below the top of each such producing formation or zone to a point at least 50 feet above each producing formation or zone;

(c) If a well is uncased through a freshwater zone, a cement plug shall extend from 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 shall be placed in the well extending from a point at least 50 feet below the base of the surface casing and 50 feet into the bottom of the casing;

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

(f) The operator shall have the option as to method of placing cement in the well:

(A) Pumping through tubing;

(B) Pump and plug displacement; or

(C) Other method approved by the department.

(5) Plugging Methods and Procedure, Prospect Wells. Before abandoning any prospect well which penetrates a usable freshwater horizon, it shall be the duty of the owner or operator of such prospect well to plug the well in such manner as to protect properly all freshwater-bearing formations; and within 60 days after the plugging, an affidavit shall be filed with the department by the owner or operator, setting forth the location of the prospect well and the method used in plugging the well to protect water-bearing formations, if any were penetrated. Plugging shall consist of the following procedures unless a different method is approved by the department. These procedures may be done in open hole if the well is being abandoned, or in the annulus around tubing if the well is being completed as a temperature gradient well:

(a) In wells where water is not encountered, the hole shall be filled with heavy mud-laden fluid or with drill cuttings and a ten (10) foot cement plug placed at the top of the hole, buried at least two feet in such a manner as not to interfere with soil cultivation;

(b) In wells where groundwater is encountered but is not under artesian pressure, the hole shall be filled with cement to a point at least 50 feet above the water zone, or if the top of the zone is less than 50 feet from the ground surface, the cement shall extend to the ground surface. If a well penetrates below a freshwater zone, a cement plug shall extend from 50 feet below the bottom of the zone to at least 50 feet above the zone;

(c) In wells where artesian water is encountered, the well shall be plugged with cement from bottom to top.

(6) Report on Completion. Within 60 days after the plugging of a geothermal well or prospect wells, the owner or operator thereof shall file a report with the department setting forth in detail the method used in plugging the well(s). Such report shall be made on a form supplied by or approved by the department.

(7) Wells Used for Fresh Water:

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

(b) Application for leaving the well partially unplugged as a fresh water well shall 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;

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

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.175 & 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

632-020-0130

Subsequent Abandonment Report

(1) Within 60 days after the abandonment of any well, the owner or operator of such well shall make, in such form as the department may direct, a written report, of all work done with respect to the abandonment.

(2) Failure to abandon in accordance with the approved method of abandonment, failure to submit to the department any application or report required by these rules, or failure to furnish the department, upon request, with any information regarding the condition of the well(s), shall constitute sufficient grounds for disapproval of the abandonment.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.175 & 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

632-020-0134

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 shall 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 shall give consideration to 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

632-020-0138

Unit Agreements

(1) When voluntary unitization occurs under ORS 522.405 to 522.545, the operator of the unit shall pay to the board a fee, to be determined by the board on a case-by-case basis for administration of the unit. The unit operator shall 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 operator of the unit shall pay to the board a fee to be determined by the board on a case-by-case basis, for creation and administration of the unit. The unit operator shall 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 State Geologist shall 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 shall make application to the board.

(5) The State Geologist 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 & ORS 522.405

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

632-020-0140

Commingling Production

The department may authorize the lessee to commingle the production from different wells and/or leases with the production of other operators subject to such conditions as may be prescribed.

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

632-020-0145

Pits or Sumps

(1) Materials and fluids or any fluid necessary to the drilling, production, or other operations by the permittee may be discharged or placed in pits and sumps if approval to do so is obtained from the department and the State Department of Environmental Quality. The operator shall provide pits and sumps of adequate capacity and design to retain all materials. In no event shall the contents of a pit or sump be allowed to:

- (a) Contaminate streams, artificial canals or waterways, groundwaters, 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

632-020-0150

Disposal of Solid and Liquid Wastes

(1) The Department of Geology and Mineral Industries has authority for regulating injection of geothermal fluids derived from geothermal resources as specified in ORS 522.025 and 522.019(2) and the Department of Environmental Quality has authority for regulating other methods for disposing of fluids and wastes derived from geothermal operations.

(2) Injection of geothermal fluids shall 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.

(3) Methods of handling geothermal fluids derived from geothermal resources other than injection may be approved by the State Geologist or his representative if after consultation with the Director of the Department of Environmental Quality or his representative it is determined that no pollution will occur.

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

632-020-0151**Handling of Test Fluids**

Prior to conducting formation and production tests, the operator shall provide adequate storage for anticipated volumes of formation fluids and drilling mud. Arrangements for ultimate disposal of waste fluids shall be made with the local Department of Environmental Quality representative.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.305

Hist.: GMI 4-1980, f. & ef. 10-2-80

632-020-0154**Injection and Conservation**

Injection shall be the preferred 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 wells defined in ORS 522.005(12) and 522.025 and to wells 2,000 feet in depth or deeper used for injection of geothermal fluids regardless of temperature of the fluids.

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

632-020-0155**Application to Drill Injection Well**

(1) No person shall engage in the drilling or operating of any geothermal injection well without first obtaining a permit issued under the authority of the State Geologist, and without complying with the conditions of such permit.

(2) An application for a permit to inject a geothermal fluid into any underground reservoir shall contain all the information required by the State Geologist, including but 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 shall be distinguished by type;

(c) The injection fluid characteristics such as quality, quantity, source, chemical analysis, chemical reactivity, toxicity, temperature, etc.;

(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) Hydrology of the surrounding area, including groundwater quality, quantities, analyses, and the predicted effects of contamination by injected fluids on the existing surface and groundwaters;

(f) Subsurface maps and cross sections of the producing and injecting zone structure and lithology and any available logs or histories of well or other wells penetrating the injection zone, that have not previously been submitted. Discuss the effects of injection on such factors as potable water, seismicity, and local tectonic conditions;

(g) Representative injection well drilling program;

(h) 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;

(i) Proposed injectivity surveys and other means to monitor injection performance.

(3) The State Geologist shall circulate copies of an applica-

tion to construct an injection well to those agencies specified in ORS 522.125. Any of those agencies desiring to suggest conditions under which a permit should be granted shall provide such information to the department within 30 days of receipt of the copy of the application. Such conditions may be stipulated by the State Geologist as conditions of the permit.

(4) An application for an injection well permit shall be accompanied by a \$250 fee to cover cost of processing.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.019 & 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

632-020-0156**Permit for Injection**

(1) Within 30 days after receipt of the application for an injection well permit, the State Geologist or representative shall issue, deny, suspend, modify, revoke, or not renew a permit subject to the right of appeal by the applicant described in OAR 632-020-0165.

(2) The State Geologist or representative may issue the permit after finding that issuance thereof is consistent with the purposes set forth in ORS 468.280, 468.710, 468.725, 537.525, and ORS 522.

(3) A water pollution control facilities permit shall be obtained from the Department of Environmental Quality under ORS 468.740 before re-injection is commenced. The Department of Environmental Quality may, by agreement with the State Department of Geology and Mineral Industries, waive this requirement for injection into the reservoir from which the fluid came where adequate standards and tests have been adopted to insure the fluid and its residues will not cause pollution.

(4) Issuance of an injection permit does not relieve any person from any obligation to obtain a permit under ORS 468.725 or 468.730 (Department of Environmental Quality).

(5) The State Geologist or representative shall not issue a permit for injection of geothermal fluids until the operator has posted a bond 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

632-020-0157**Construction of Injection Wells**

(1) Injection wells shall be constructed in compliance with standards required in OAR 632-020-0095 and 632-020-0125.

(2) Special standards may be required by the State Geologist 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 of produced fluids shall 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. Acceptable tests include pressure build-up profiles, pressure testing, and casing thickness logs to demonstrate integrity of the casing. The department may, on a case by case basis, approve tracer surveys, noise logs, temperature logs, spinner surveys, or other methods approved by the department may be acceptable to detect water movement adjacent to the wellbore. The department shall be notified to witness mechanical integrity tests, and results shall be submitted as required by OAR 632-020-0060.

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

632-020-0158**Wellhead Equipment, Injection Wells**

Adequate wellhead equipment shall be installed to control expected pressures. Where underground conditions are unknown, the same equipment shall 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

632-020-0159

Monitoring Injection

(1) The department shall require monitoring of injection operations to insure that there will be 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 well-head 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

632-020-0160

Appeals From Board Actions

Application for rehearing by person adversely affected by order of board. Any person adversely affected by any rule, regulation, or order of the Board may within 30 days after its entry apply to the board for a rehearing. Such application shall be acted upon by the board within 30 days from its filing date, and if granted, such rehearing shall be held without undue delay.

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

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

The permittee shall conduct operations under this chapter so as not to pollute land, water or air, pollute streams, damage the surface or pollute the underground water. The operator must comply with Federal and State air and water quality standards. Plans for disposal of well effluents must take into account the effect on groundwaters, streams, plants, fish and wildlife and their populations, atmosphere, or any other effects which may cause or contribute to pollution, and such plans must be approved by the department before action is taken under them.

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

Geothermal Blowout Prevention

632-020-0175

Blowout Prevention, Geothermal Wells

(1) Cementing of Casing. The conductor and surface casing strings shall be cemented with a quantity of cement sufficient to fill the annular space back to the surface. The intermediate casing string shall be cemented to fill the annular space back to the surface unless otherwise approved by the department. Production casing shall be cemented with a high temperature resistant cement, unless waived by the department and shall 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. Production casing shall be cemented back to the surface or, if lapped, to the top of the lap. 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. 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) Prior to drilling out the casing shoe after cementing, all surface casing strings shall be pressure tested, measured at the surface gauge, to a minimum pressure of 1,000 psi, 1.5 psi per foot of casing, or to the working pressure of the casing, whichever is lesser. A higher test pressure may be specified in permit stipulations for casing strings set to greater than 1,000 feet. Exceptions to these minimum pressures may be allowed with the specific prior permission of the department. Such test shall not exceed the rated working pressure of the casing or the blow-out preventer stack assembly, whichever is lesser;

(b) 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 shall be considered satisfactory;

(c) Casing test results shall be recorded in the driller's log and reported to the department within 60 days after the completion of such test. Advance notice of all casing and lap tests shall be given in sufficient time to enable the department to be present to witness such tests. The casing and lap test reports shall 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) Blow-Out Prevention Equipment and Procedures. All necessary precautions shall be kept all wells under control at all times, utilize trained and competent personnel, and utilize properly maintained equipment and materials. Blow-out preventers and related well control equipment shall be installed, tested immediately thereafter, using water, and maintained ready for use until drilling operations are completed. Certain components, such as packing elements and ram rubbers, shall be of high temperature resistant material as necessary. All kill lines, blowdown lines, manifolds and fittings shall be steel and shall 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, blow-out prevention equipment shall 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 blow-out preventers. Dual control stations shall be installed with a high pressure backup system. One control panel shall be located on the ground at least 50 feet away from the wellhead or rotary table. Air or other gaseous fluid drilling systems shall have blow-out prevention assemblies. Such assemblies may include, but are not limited to, a rotating head, a double ram blow-out preventer or equivalent, a banjo-box or an approved substitute therefor and a blind ram blow-out preventer or gate valve, below the banjo-box. Exceptions to the requirements of this paragraph will be considered by the department only for 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. Unless otherwise approved by the department, before drilling below any of these strings, the blowout prevention equipment shall include a minimum of:

(A) One expansion-type preventer and accumulator or rotating head;

(B) A manual and remotely controlled hydraulically operated double ram blowout preventer or equivalent having a temperature derated minimum working pressure rating which exceeds the maximum anticipated surface pressure at the anticipated reservoir fluid temperature;

(C) A drilling spool with side outlets or equivalent;

(D) A kill line equipped with at least one valves; and

(E) A blowdown line equipped with at least two valves; and securely anchored at all bends and at the end. At least one valve must be adjustable and one a complete shut off.

(c) Testing and Maintenance:

(A) Ram type blowout preventers and auxiliary equipment shall 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 shall be tested to 70 percent of the above pressure testing requirements. The blowout prevention equipment shall be pressure tested:

(i) When installed;

(ii) Prior to drilling out plugs and/or casing shoes;

(iii) Not less than once each week, alternating the control stations; and

(iv) Following repairs that require disconnecting a pressure seal in the assembly.

(B) During drilling operations, blowout prevention equipment shall 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 shall be inspected at least weekly and retightened as necessary during drilling operations. The auxiliary control systems shall be inspected daily to check the mechanical condition and effectiveness and to insure personnel acquaintance with the method of operation. Blowout prevention and auxiliary control equipment shall be cleaned, inspected, and repaired, if necessary, prior to installation to assure proper functioning. Blowout prevention controls shall be plainly labeled, and all crew members shall be instructed on the function and operation of such equipment. A blowout prevention drill shall be conducted weekly for each drilling crew. All blow-out prevention tests and crew drills shall be recorded on the driller's log.

(4) Related Well Control Equipment. A full opening drill string safety valve in the open position shall be maintained on the rig floor at all times while drilling operations are being conducted. A kelly cock shall 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 shall be such as are necessary to prevent the blow-out of any well. Sufficient drilling fluid materials to ensure well control shall be maintained in the field area readily accessible for use at all times.

(6) Drilling Fluid Control. Before pulling drill pipe, the drilling fluid shall be properly conditioned or displaced. The hole shall be kept reasonably full at all times, however, in no event shall 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 shall 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 shall be performed daily or more frequently as conditions warrant. Mud testing equipment shall be maintained on the drilling rig at all times;

(b) The following drilling fluid system monitoring or recording devices shall be installed and operated continuously during drilling operations, with mud, occurring below the shoe of the conductor casing. No exceptions to these requirements will be allowed without the specific prior permission 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 shall 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 shall be installed in areas suspected or known to contain hydrogen sulfide gas which may reach levels considered to be dangerous to the health and safety of personnel in the area.

(8) Well-head Equipment and Testing:

(a) Completions. All wellhead connections shall 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 shall be performed by a certified welder using materials in conformance with ASTM specifications;

(b) Well-head Equipment. All completed wells shall be equipped with a minimum of one casinghead with side outlets, one master valve and one production valve, unless otherwise authorized by the department. All casingheads, christmas trees, fittings, and connections shall 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 shall consist of materials or substances that function effectively at, and are resistant to, high temperatures. Wellhead equipment, valves, flanges, and fittings shall meet minimum ASA standards or minimum API Standard 6A specifications. Casinghead connections shall 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 abandoned, a member of the drilling crew or the toolpusher shall 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 & ORS 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

632-020-0180

Blowout Prevention Rules for Prospect Wells

All prospect wells drilled below a depth of 500 feet shall have adequate casing and wellhead controls installed, unless otherwise approved by the department. The casing shall 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 shall 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 shall stop immediately, the operator shall 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) Abandoned by plugging with cement from total depth to surface; or

(c) Deepened only after a review of the adequacy of well-head control equipment and permission of the department. If the prospect well is deepened as described in this section, it shall 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.

(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 for such holes (such as cemented surface casing and simple expansion type blowout preventers) to safely control formations containing geothermal or other resources which may be penetrated.

(4) A supply of mud and lost circulation material shall be

kept on hand while drilling to control abnormal pressure if rotary equipment is used.

Stat. Auth.: ORS 522

Stats. Implemented: ORS 522.155 & ORS 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

DIVISION 30

OREGON MINED LAND RECLAMATION ACT

Applicable to All Mineral Products Except Coal and Metal-Bearing Ore Operations Which Obtain Initial Permits After August 16, 1981

632-030-0005

Purpose of These Rules

(1) These rules implement the purposes of ORS 517.750 to 517.955 and ORS 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 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 ORS 517.750 to 517.955 and ORS 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 ORS 517.990(3), (4) and (5).

(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 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 517.760

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

632-030-0010

Definitions

In addition to the definitions provided in ORS 517.750, the following definitions shall apply to OAR 632-030-0005 through 632-030-0060:

(1) "Access Road," as used in ORS 517.750(13), is defined as a road constructed or improved to enable a user of a site to reach to the site.

(2) "Access Road Excavation Site" means an area used for the excavation of sand, gravel, clay, rock, or similar materials from which substantially all the material removed is used or exchanged for similar material to be used for construction, reconstruction, or maintenance of an access road.

(3) "Affected," as used in ORS 517.750(13)(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.

(4) "Aggregate" means crushed or uncrushed gravel, stone, rock, or sand of a quality typically used in concrete or road construction.

(5) "A Period of 12 Consecutive Calendar Months", as used in ORS 517.750(13), begins on the date surface mining begins.

(6) "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.

(7) "Complete Application" means an application which is determined to be complete by the Department when the Department has received the appropriate fee, forms, and documentation that address the provisions of OAR 632-030-0025.

(8) "Expansion," as used in these rules, means lateral expansion consequential to surface mining into land surfaces previously not affected by surface mining.

(9) "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 permit.

(10) "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. Exploration does not include prospecting.

(11) "Limited Exemption area" means land that is exempt from regulation under ORS 517.770 because it is within the surfaces and contours of a surface mine operating on July 1, 1972.

(12) "Modification" includes intensification or substantial modification as defined in this rule.

(13) "Other On-Site Construction," as used in ORS 517.750(15)(b), means the removing, adding, or shifting of sand, gravel, clay, rock, or other similar materials within a construction site such as: a road right-of-way, a river dam and its pool, farm grading or ditching, and/or real estate development. Material bought for an on-site construction fill is not considered surface mining refuse or spoil bank.

(14) "Permit Area" is the contiguous area of surface mining as defined in ORS 517.750 (15). 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 may be a contiguous parcel which is available to the permittee for surface mining. 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, shall be included in the permit area. The permit area may be redefined by a permit modification as mining progresses.

(15) "Provisional Operating Permit," as used in ORS 517.830(2), is a preliminary permit that may be issued by the Department which allows the applicant to commence operations pending final approval of a reclamation plan subject to applicable local land use requirements.

(16) "Prospecting" means activities conducted on or beneath the surface of the earth for the purpose of determining presence, extent, grade or economic viability of a deposit, but does not disturb more than one cumulative acre or include drilling to a depth of more than 50 feet.

(17) "Reclamation" means the procedures designed to minimize the disturbance from surface mining and to provide for the rehabilitation of surface resources adversely affected by such mining through the use of plant cover, soil stabilization, procedures to protect the surface and subsurface water resources, and other measures appropriate to the subsequent beneficial use of mined lands.

(18) "Substantial Modification" includes intensification, or significant change of operation or reclamation, such as mining below ground water; if not previously permitted.

(19) "Surface Mined Prior to July 1, 1972" means land affected by surface mining before July 1, 1972, which has not been adequately reclaimed.

(20) "Surface Mined Prior to January 1, 1981" means land affected by surface mining before January 1, 1981, under the provisions of the valid contract clause of ORS 517.770(1)(c), and which has not been adequately reclaimed.

(21) "Total Exemption" means surface mining that is exempt from the requirements of these rules. The Department may require certain information to be provided under OAR 632-030-0016(2) to establish exemptions.

Stat. Auth.: ORS 183.341, ORS 197.180 & ORS 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

632-030-0015

General Information

(1) Information Requirements. The Department may require any information needed to ascertain the status of any surface mining. Proprietary information which includes, but is not limited to, trade secrets, business records and production figures, 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 on all new sites that have not been inspected by the Department before. On all other sites, initial 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;
- (D) Collecting data to calculate a bond.

(b) 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 public complaints;
- (C) Evaluating the site bond level.

(3) County Authority:

(a) Columbia County is the only county operating its own mined land reclamation program. ORS 517.750 to 517.992 applies to all counties with the exception of Columbia County;

(b) When any city or county elects to exempt from these rules city or county owned or operated sites according to the provisions of ORS 517.780(3), it shall adopt the required ordinance and notify the Department of its action. A copy of the ordinance shall be provided with the notification. The city or county ordinance must meet the requirements of ORS 517.780(3). Each city or county which operates under its own ordinance under ORS 517.780(3) shall annually supply the Department with a list of sites covered by the exemption. The list for each site will include the following: Legal description, land ownership, status (active, inactive or reclaimed). In addition, cities or counties exercising an exemption under this clause shall 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.

(4) Surface Mining on Federal Lands. Surface mining conducted on federal lands, with exceptions as defined under the definition of access roads, is subject to ORS 517.750 - 517.990(3), (4), and (5). 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) 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;
- (C) That is in violation of ORS 517.750 - 517.900 and the rules adopted thereunder, the reclamation plan, or permit conditions;

(b) Where a site has expanded outside the approved permit area without approval by the Department;

(c) That is in violation of ORS 517.750 - 517.900 and the rules adopted thereunder, the reclamation plan, or permit conditions;

tions;

(D) 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 ORS 517.990(3) and (4).

(b) An Operating Permit becomes invalid upon the expiration date if renewal has not been made, or at any time if the bond or alternate security has expired, has been canceled without replacement, or is insufficient to cover the cost of reclamation. 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.

(6) Reclamation by 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. For example, the Department will not construct a lake if the excavation has not reached the water table; the Department shall not complete a proposed housing development;

(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 abuses of natural resources, by enhancing wildlife habitat or restoring a drainage;

(D) Be compatible with local agency regulations or approved secondary beneficial use and with federal and state laws.

(7) Applicability of Laws and Rules. Permittees are subject to the provisions of statutes and rules in effect when their permits or certificates are issued. Permittees are also subject to provisions of statutes and rules enacted or adopted during the period of validity of their permits or certificates. To the extent there is conflict, the new statutes and rules apply.

Stat. Auth.: ORS 183.341, ORS 197.180, ORS 517.740, ORS 517.800(3) & ORS 517.800(4)

Stats. Implemented: ORS 517.740, ORS 517.800 & ORS 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

632-030-0016

Total Exemptions

(1) The following excavation or grading activities are exempt from these rules and do not require the payment of fees, posting of bond or submittal of reclamation plans:

(a) Access road excavation site. To maintain a total exemption, no more than 5,000 cubic yards of material from an access road mining site may be sold, traded, or used off site for another purpose during any period of 12 consecutive months;

(b) Farming and cemetery operations. Excavation or grading activities conducted in the process of farming or cemetery operations are exempt. To maintain this exemption, no more than 5,000 cubic yards of material may be sold, traded, or used off site for another purpose during any period of 12 consecutive months;

(c) 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 ORS 541.627 to 541.660;

(d) Operations producing less than 5,000 cubic yards of material per year and disturbing less than one acre of land are exempt;

(e) Exploration. Mineral exploration activities are exempt until the cumulative area affected by one operation exceeds one of the following:

(A) More than one acre including road construction;

(B) Drilling exceeds 50 feet. (See OAR Chapter 632, Divi-

sion 033 for more detail.)

(C) More than 5,000 cubic yards of material is extracted per year.

(f) On-site construction operations. If more than 5,000 cubic yards of material are to be sold, traded, or used off site from a construction site, the Department may request documentation from the applicant establishing that removal of the material is an essential and integral part of the construction work. This documentation shall include evidence that the construction project has been approved by the appropriate land-use authority and a construction time schedule has been filed. If removal of the material is not an essential and integral part of the construction project, an Operating Permit must be obtained before removal of any material;

(g) On-site road construction. Excavation operations conducted within a road right-of-way or other easement for the primary purpose of road construction, reconstruction, or maintenance are exempt;

(h) Surface effects, created by underground mining prior to October 1, 1983, which have not been reclaimed.

(2) Applications for 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 mining, size of the site, date of commencement of the surface mining, and 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 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

632-030-0017

Limited Exemption

(1) Limited exempt status is applicable to land surfaces which were affected by surface mining before July 1, 1972.

(2) To apply for a Limited Exemption Certificate the applicant must:

(a) Submit the appropriate application form and fee;

(b) Document with appropriate aerial photographs or other acceptable information that the site qualifies per subsection (1)(a) or (b) of this rule;

(c) Must demonstrate that the site has not been reclaimed naturally or by man. The applicant must demonstrate that the site has not stabilized to the point where it is at least revegetated to 50 percent of estimated original cover prior to mining, when compared to adjacent lands, or has not reverted to any beneficial use such as wildlife habitat or grazing;

(d) The Department will review each request and make a determination based on the documentation provided, and on-site inspection, if necessary. If the Department refuses to approve the application for a Limited Exemption Certificate it 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;

(e) The holder of a Limited Exemption Certificate must renew the limited exemption annually by submitting the renewal form and fee before the certificate expires. As a courtesy the Department may notify the holder that the certificate is due for renewal by mailing the necessary renewal forms and fee schedule at least 45 days before the renewal date. The Department may request information to determine continued eligibility;

(f) Expansion of surface mining under limited exempt status into previously unmined land, which exceeds 5,000 cubic yards of material disturbed or one acre affected in any period of 12 consecutive months, requires a full 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 the expansion occurs beyond any limited and total exempt boundaries. Expansion of a site before the 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 & ORS 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

632-030-0020

Procedures for Applying for an Operating Permit

Obtaining an Operating Permit:

(1) The applicant shall submit the required application forms for each separate surface mining operation.

(2) The applicant shall submit a reclamation plan as defined in OAR 632-030-0025 including a map acceptable to the Department which delineates the proposed permit area.

(3) The application shall be accompanied by the application fee.

(4) The applicant shall submit a performance bond or other adequate security deposit for the purpose of assuring performance of the reclamation plan, other requirements of ORS 517.750 to 517.900, all rules and permit conditions. All disturbed land must be bonded prior to disturbance. 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 appropriate bond amounts:

(a) 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 disposition of debris, junk, equipment, structures, foundations and unwanted chemicals;
- (G) Reduction of hazards such as: In-water slopes, highwalls and landslides or other mass failure;
- (H) Disposition of oversize, rejects, scalplings, overburden;
- (I) Backfilling, contouring or regrading and topsoil replacement;
- (J) Draining, establishment of drainage, and erosion control;
- (K) Soil tests;
- (L) Seedbed preparation, seeding, mulching, fertilizing, netting, tackifiers or other stabilizing agents;
- (M) Tree and shrub planting;
- (N) Fencing;
- (O) Liability insurance.

(b) 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.

(c) 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, Soil Conservation Service, Oregon State University Extension Service, the Department of Transportation, the Bureau of Land Management or US Forest Service and private sector experts;

(d) The applicant may submit reclamation cost estimates for consideration by the Department. In the event of a disagreement regarding the estimated cost of reclamation the applicant may appeal the decision to the State Geologist;

(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) No permit shall be issued or renewed until an acceptable bond or other security for a surface mining site is on file with the Department. The bond or other security must be maintained until the surface mining site is reclaimed. 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. 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;

(g) The Department may reduce the bond for aggregate sites by an amount not to exceed 50 percent for a surface mine site that meets the following conditions:

(A) The permittee has had a valid Operating Permit at the site for ten years;

(B) The permittee can demonstrate substantial financial ability to perform the reclamation in the approved reclamation plan.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.790 & ORS 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

632-030-0022

Fees

(1) Application Fee: The fee for a new application for an operating permit is \$875. If a permit is not issued within one year, based in whole or in part upon the applicant's failure to provide all requested information in a timely manner or the need for extraordinary department review, the applicant must pay the annual fee specified in subsection (2)(a) or resubmit the application and pay a new application fee.

(2) Annual Fee:

(a) The annual fee for an operating permit is based on the tonnage of total aggregate or mineral ore extracted during the previous 12 months. The fee is:

- (A) \$635 for zero to 99,999 tons;
- (B) \$835 for 100,000 to 199,999 tons;
- (C) \$1,035 for 200,000 to 299,999 tons;
- (D) \$1,235 for 300,000 to 399,999 tons;
- (E) \$1,435 for 400,000 to 499,999 tons;
- (F) \$1,635 for 500,000 or more.

(b) Operations that have produced no more than 5,000 cubic yards per year since October 1992 may pay an annual fee of \$525 in place of the regular annual fee set out in subsection (2)(a) above.

(c) Operations that have been regraded, stabilized and acceptably seeded prior to the beginning of the annual permit period but where reclamation is not complete because the vegetation is not satisfactorily established may pay a fee of \$200 in place of the annual fee specified in subsections (2)(a) or (b) above.

(d) The department in its discretion may prorate annual fees at the permittee's request to adjust the anniversary date.

(e) Each application for an Operating Permit or Limited Exemption Certificate shall be accompanied by the established fee.

(f) Each permit and certificate shall be renewed annually, on or before the last day of the month shown on the permit as the renewal month. The annual fee shall be paid and the annual report form returned prior to renewal. As a courtesy, the Department may notify the permittee with a renewal notice at least 45 days prior to the renewal date. The permittee must pay all delinquent

fees owed to this Department prior to renewal of the certificate or permit;

(3) Amendment Fee: The Department may assess an additional fee not to exceed \$625 for staff time, legal fees and other administrative costs relating to a request for significant revisions to an operating permit or reclamation plan.

(4) Refunds: The State Geologist may refund a fee if the underlying application or request is withdrawn and neither significant staff time has been spent nor expenses have been incurred by the Department.

(5) Local Land Use Decisions: If, at the request of an applicant, the department responds to requests for information required by a local government in making a land use planning decision on behalf of the applicant for a specific site, the State Geologist may require the applicant to pay the department an additional fee for staff time and related costs. The department shall notify the applicant in advance of the estimated costs and the amount of hours necessary to provide the information. The actual amount assessed shall not exceed the estimate provided by the department.

(6) Extraordinary Expenses: If an application for a new permit requires extraordinary department resources because of concerns about slope stability or proximity to waters of the state or other environmentally sensitive areas, the applicant shall pay to the department an additional fee in an amount determined by the State Geologist to be adequate to cover the additional costs for staff and other related expenses. The State Geologist shall consult with the applicant when determining the amount of the fee.

(7) Special Inspection Fees: An additional fee not to exceed \$200 may be assessed for department investigations under the following situations:

(a) Where surface mining is conducted without a valid Operating Permit required under ORS 517.790;

(b) Where a surface mining operation has been issued a notice of abandonment;

(c) Where surface mining operations are conducted outside the permitted area.

(8) The fees assessed in subsections (3), (5), (6) and (7) shall be in addition to any fee assessed under subsections (1) and (2) of this rule.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.800

Hist.: GMI 2-1997, f. & cert. ef. 10-14-97

632-030-0025

Requirements for the Reclamation Plan

(1) The applicant shall submit a Reclamation Plan to the Department. Information that the Department may require in a reclamation plan includes but is not limited to the following 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) and residence of the applicant;

(c) The name and mailing address 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 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;

(g) A description of mining methods and a general list of equipment to be used;

(h) Provisions for the backfilling, recontouring, topsoil replacement, seedbed preparation, mulching, fertilizing, selection of plant species, seeding or planting rates and schedules;

(i) The characterization of the ground and surface water based on available wells, drill logs, springs and surface drainages within one mile of the proposed operation. The Department may require the collection and submission of additional hydrologic

data upon which to base evaluations and decisions;

(j) Provisions to maintain the pre-mine quantity and the pre-mine quality of affected water resources;

(k) 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 required for mining or processing at the proposed operation. The Department may require analysis of process water, reagents, wastes or other materials involved in the mining operation;

(l) Environmental baseline information as may be required by the Department;

(m) 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;

(n) Procedures for the stable storage of overburden. This may include a description of the pre-mine topography, method of emplacement of overburden, height of lifts, final height, and slope configurations of overburden;

(o) Provisions for protection of public health and safety;

(p) Provisions specifying adequate setbacks;

(q) Procedures for the protection, maintenance and restoration of drainages disturbed by the proposed operation. All stream channels and stream banks shall be rehabilitated by procedures that shall minimize bank erosion, channel scour, and siltation; and maximize aquatic habitat. The applicant may be required to supply the following:

(A) Design capacities;

(B) Plan and profile drawings;

(C) Typical cross sections for settlings ponds;

(D) Diversion structures;

(E) Energy dissipation structures;

(F) Other water control structures.

(r) Disturbance within the beds and banks of streams may require a permit from the Division of State Lands;

(s) The Department may require the applicant to provide for the prevention of stagnant water;

(t) A proposed time schedule for surface mining and reclamation. Reclamation must be completed within three years of the completion of surface mining on any parcel. Exceptions include but are not limited to those areas that continue to be used as a plant site, stockpile, work area for an ongoing surface mining operation or construction waste disposal;

(u) Final slopes shall be stable. 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:

(A) Blend into adjacent terrain features;

(B) Existed prior to mining;

(C) Are consistent with approved subsequent beneficial use.

(2) Fill slopes shall be 2:1 or flatter unless steeper slopes are approved by the Department. Fill slopes steeper than 2:1 may be approved if technical data supporting slope stability is submitted to the Department:

(a) Provisions for the revegetation of all disturbed areas consistent with future use. The Department shall, in most instances, consider revegetation successful if it is comparable in stability and utility to adjacent areas. In arid or semi-arid regions, the Department may allow three years of growth prior to revegetation evaluation. Otherwise revegetation will be evaluated after one growing season. Vegetation test plots may be required to ensure establishment feasibility. If applicable the applicant must include a plan for the control of noxious weeds;

(b) Provisions for the establishment of 3:1 in-water slopes to six feet below low 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;

(c) Visual screening of the proposed operation may be required, if economically practical, 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 or berms;

(d) 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:

(A) Permit area boundary;

(B) Mine location;

(C) Waste rock or overburden stockpiles;

(D) Processing plant location;

(E) Ancillary facilities location;

(F) Haul roads;

(G) Topsoil stockpile locations;

(H) Typical cross sections;

(I) Plan views and profiles;

(J) Existing watercourses and ponds;

(K) Interim watercourses and ponds;

(L) Reconstructed watercourses and ponds;

(M) Post-mining topography;

(N) Property lines.

(e) 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.

(3) 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:

(a) Written evidence that the surface estate and mineral estate owners concur with the reclamation plan and that they will allow 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 estate owner, including a legal right of access to the site, the Department may issue an Operating Permit;

(b) Provisions to maintain access to utilities when a utility company right-of-way exists.

(4) Nothing in this section is intended to require that completed reclamation shall exceed pre-mining conditions in quality.

Stat. Auth.: ORS 183.341, ORS 197.180 & ORS 517.740

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

632-030-0030

Department Action on Reclamation Plan and Operating Permit Application

(1) The Department shall, upon receipt of an Operating Permit application and proposed reclamation plan, conduct a review for completeness within 45 days. If the Department determines that either the permit application or the proposed reclamation plan is not complete, the Department shall notify the applicant of the needed information or documentation to make the submittal complete. The applicant shall be informed that being incomplete does not constitute a denial of the Operating Permit and proposed reclamation plan. Within 45 days of the date of the Department's determination that the Operating Permit application and reclamation plan are complete, the Department shall determine the adequacy of the Operating Permit application and proposed reclamation plan by taking the following actions:

(a) Inspect the site and file an inspection report;

(b) Circulate the complete Operating Permit application, proposed reclamation plan and inspection report to appropriate federal, state and local agencies for review and comment. Confidential material shall not be circulated (ORS 517.900);

(c) Notify the affected local government in writing that a complete operating permit application and proposed reclamation plan have been received by the Department accompanied by a

copy of the application and plan, and that if a local land use permit pursuant to ORS 215.428 or 227.178 or a comprehensive plan amendment is required, then the local government may request that the Department delay its final decision in accordance with subsection (2)(a) or (b) of this rule. Any request from an affected local government to delay a final decision must be received by the Department within 15 calendar days of notification to the local government. If the local government does not provide a response or request a delay, the Department shall apply the provisions in subsection (2)(c) of this rule;

(d) Determine the bond level; and

(e) Notify the applicant of any deficiencies and recommended permit conditions;

(f) A Provisional Operating Permit may be issued by the Department under the following conditions:

(A) No local land use approval is required, or any necessary approval has been obtained;

(B) The applicant provides written evidence to the Department that no local land use approval is required, or that any necessary approval has been obtained;

(C) The required financial security is in effect; and

(D) The applicant obtains final approval of an Operating Permit within 45 days from receipt of the Provisional Operating Permit.

(2)(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)(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 shall 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 ORS 215.428 or 227.178. For applications for new Operating Permits or intensification or substantial modification to existing Operating Permits, received on or after October 1, 1991, the Department shall not approve the Operating Permit and reclamation plan or intensification or substantial modification 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;

(b) Applications involving a comprehensive plan amendment: If the affected local government informs the Department under subsection (1)(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 shall 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 shall 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 received on or after October 1, 1991, the Department shall 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 shall give the local government opportunity to review and comment on the application in the manner described in subsection (1)(b) of this rule. If the local government fails to respond in writing within 30 days of mailing, the Department shall 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 shall notify in writing 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 of 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 shall 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. 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. Informal requests for reconsideration of a deficiency decision may be submitted as provided for in OAR 632-030-0056.

(5) The Department may judge the applicant's reclamation plan 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 do 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 proposed 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, shall 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.

Stat. Auth.: ORS 183.341, ORS 197.180 & ORS 517.740

Stats. Implemented: ORS 517.740 & ORS 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

632-030-0035

Modification of an Operating Permit

Modification may be initiated at any time by the permittee or by the Department. The term "modification", as used in this rule includes "intensification" or "substantial modification", as defined in OAR 632-030-0010(8) and (16). The Department will circulate applications for intensification or substantial modifications to local government pursuant to ORS 517.830 and OAR 632-030-0030. 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(1) to (8) in order to assure compliance with existing laws and land use requirements or to accommodate unforeseen developments which may affect the Operating Permit and reclamation plan as previously approved.

Stat. Auth.: ORS 183.341, ORS 197.180 & ORS 517.740

Stats. Implemented: ORS 517.740, ORS 517.800 & ORS 517.830

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

632-030-0040

Maintaining and Renewing an Operating Permit

(1) As provided by ORS 517.830(4) an Operating Permit issued by the Department will be granted for the period of time required to mine the land described in the permit subject to the renewal requirements of these laws. 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 will 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-renewable, a second notice will 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. Once all reclamation work is complete to the satisfaction of the Department, but vegetation is not yet established, a lesser fee will be required.

(2)(a) If the Department determines from inspections conducted pursuant to ORS 517.850 or from any other source, that the permittee has not complied or is not complying with the approved reclamation plan, permit conditions, ORS 517.750 - 517.900, or the rules adopted thereunder, the Department shall give written notice of non-compliance 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 from the notice of non-compliance in accordance with OAR 632-030-0056. 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 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.

(3) If an Operating Permit has been obtained for mining on a site which is to be returned to an exempt mining use, reclamation may be waived in total or in part if approved by the Department. Examples include but are not limited to:

(a) The return of a site to the Bureau of Land Management or US Forest Service for federal operation;

(b) The return of a site to a tree farm operator for access road use;

(c) Any portions of sites which do not have mineable reserves remaining shall be reclaimed. The applicant shall be required to document that mineable reserves remain and that there is a probable use for those reserves.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.740 & ORS 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

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 and land use approval, if any, as determined by the affected local government, the bond or other security will be released. The Department may authorize bond or other security reduction if the reclamation is partially completed.

Stat. Auth.: ORS 183.341, ORS 197.180 & ORS 517.740

Stats. Implemented: ORS 517.740

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

632-030-0056

Appeals

(1) Prior to the initiation of a formal appeal of any departmental order, notice, or other action made pursuant to ORS 517.750 - 517.900 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 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(2) 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 - 183.470.

Stat. Auth.: ORS 517

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

632-030-0060

Penalties

(1) An operator or landowner who shall conduct a surface mining operation for which an Operating Permit is required by ORS 517.750 to 517.900 or who operates without a valid Operating Permit shall be punished, upon conviction, by a fine of not more than \$1,000.

(2) Violation of any provision of ORS 517.750 to 517.900, or any rules promulgated pursuant thereto, or of any conditions of a Operating Permit is punishable, upon conviction, by a fine of not more than \$1,000.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.990 & ORS 517.992

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

632-030-0070

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 & ORS 517.840

Stats. Implemented: ORS 517.992

Hist.: GMI 1-1994, f. & cert. ef. 7-21-94

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 ORS 517.750 to 517.955 and 517.990 (3), (4), and (5) 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 ORS 516.750 to 517.955 and 517.990 (3), (4), and (5).

(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; ORS 517.750 to 517.955 as amended and subsections (3), (4), and (5) of ORS 517.990.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.702

Hist.: GE 1-1990, f. & cert. ef. 8-3-90

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 activi-

ties 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) "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.

(11) "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.

(12) "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.

(13) "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

632-033-0016

Exemptions

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.

(1) 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.

(2) Prospecting where no exploration drill hole is drilled is exempt from these rules.

(3) 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.

Stat. Auth.: ORS 517

Stats. Implemented: ORS 517.715, ORS 517.720 & ORS 517.730

Hist.: GE 1-1990, f. & cert. ef. 8-3-90

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.

(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 (shall be considered proprietary information if the applicant requests); and

(iv) proposed location and identification of stockpiles and wasterock dumps.

(C) Type of Drilling (air, mud, diamond, rotary, etc.);

(D) Maximum proposed depth and diameter of drill holes (shall be considered proprietary information if the applicant requests);

(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 dis-

turbed 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 interaquifer 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. 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 ORS 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, ORS 517.710, ORS 517.730 & ORS 517.810

Hist.: GE 1-1990, f. & cert. ef. 8-3-90

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.

(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 517.850 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 OAR 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

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 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 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

632-033-0040

Maintaining an Exploration Permit

(1) As provided by ORS 517.830(4) 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, ORS 517.750-900, 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

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 ORS 517.750 - 517.955 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 by the board. Such a request must be filed within 30 days of the date of the State Geologist's decision except as otherwise provided by the applicable provisions of ORS Chapter 183 and the Attorney General's Model Rules of Procedure. 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 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

632-033-0055

Penalties

(1) Any person who conducts an exploration activity without a valid Exploration 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 ORS 517.910 to 517.950, 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

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 ORS 517.990.

(3) Applicants seeking Operating Permits from the Depart-

ment 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, ORS 517.760 & ORS 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 subsurface 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 ORS 517.800 must accompany the application; 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 ORS 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 - 517.900, 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, ORS 517.800, ORS 517.850 & ORS 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 & ORS 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, 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 follow-

ing 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;

ation;

(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 require-

ments;

(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, high-walls, 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 or 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, ORS 517.870, ORS 517.890, ORS 517.915 & ORS 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 OAR 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, ORS 517.810 & ORS 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 & ORS 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 & ORS 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 & ORS 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 ORS 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 & ORS 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 overbur-

den. 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 & ORS 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 - ORS 517.995

Stats. Implemented: ORS 517.750 - ORS 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, Emergency 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, sub-

ject 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 - ORS 517.995

Stats. Implemented: ORS 517.750 & ORS 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 - ORS 517.995

Stats. Implemented: ORS 517.952 & ORS 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 - ORS 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 - ORS 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 pro-

posed 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 - ORS 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 - ORS 517.995
 Stats. Implemented: ORS 517.958 & ORS 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 - ORS 517.995

Stats. Implemented: ORS 517.958 & ORS 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 - ORS 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 - ORS 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 U.S.C. 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 U.S.C. 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.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 517.750 - ORS 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

quency; 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 bins 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 chemicals, acid-forming materials or radioactive or hazardous material or wastes generated from or required for mining or pro-

cessing 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 - ORS 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 decom-

missioning 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 - ORS 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 - ORS 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 ORS 537.400 and impoundment structure approval under ORS 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 - ORS 517.995

Stats. Implemented: ORS 517.971 & ORS 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 application. 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 - ORS 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 - ORS 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 - ORS 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 - ORS 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 - ORS 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 - ORS 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 - ORS 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 - ORS 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 - ORS 517.995
Stats. Implemented: ORS 517.952 & ORS 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 - ORS 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 - ORS 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 - ORS 517.995
 Stats. Implemented: ORS 517.956 & ORS 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 live-stock, 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 - ORS 517.995
 Stats. Implemented: ORS 517.956, ORS 517.971 & ORS 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 subsur-

face 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 - ORS 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 - ORS 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 - ORS 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 ORS 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 ORS 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 ORS 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 - ORS 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 - ORS 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 Chapter 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