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Title 14.	Natural Resources
Division 2.	Department of Conservation
Chapter 2.	Implementation of The California Environmental Quality Act of 1970
Chapter 3.	Selection of Professional Service Firms
Chapter 4.	Development, Regulation, and Conservation of Oil and Gas Resources (*includes* Subchapter 4. Statewide Geothermal Regulations)

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STATE OF CALIFORNIA
EDMUND G. BROWN, JR., *Governor*

NATURAL RESOURCES AGENCY
JOHN LAIRD, *Secretary*

DEPARTMENT OF CONSERVATION
DEREK CHERNOW, Acting *Director*

Department of Conservation
Division of Oil, Gas, and Geothermal Resources
Elena M. Miller, *State Oil and Gas Supervisor*

State of California

CALIFORNIA CODE OF REGULATIONS

Title 14. Natural Resources
Division 2. Department of Conservation

California Department of Conservation
Division of Oil, Gas, and Geothermal Resources

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CHAPTER 2. IMPLEMENTATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT OF 1970

Article 1. Definitions

1681. Scope of Regulations.

These regulations refer to the requirements of the Division of Oil, Gas, and Geothermal Resources in the preparation of environmental documents under CEQA. They are to be used in conjunction with the "State CEQA Guidelines," Title 14 California Code Of Regulations, Sections 15000 et seq.

NOTE: Authority cited: Sections 606, 3013 and 21082, Public Resources Code. Reference: Sections 21000-21176, Public Resources Code.

1681.1. Decision Making Body.

"**Decision making body**" means any person or group of people within a public agency permitted by law to approve or disapprove the project at issue. Where an applicant requests approval of a Notice of Intention to drill for an oil, gas, or geothermal well, the "decision making body" is the State Oil and Gas Supervisor or his or her representative.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Section 21080, Public Resources Code.

1681.4. Geothermal Exploratory Project.

(a) A geothermal exploratory project is for the purpose of evaluating the presence and characteristics of geothermal resources prior to starting a geothermal field development project. An exploratory project is comprised of not more than six wells. The wells must be located at least one-half mile from the surface location of any existing geothermal wells that are capable of producing geothermal resources in commercial quantities.

(b) For the purpose of preparing an environmental document for an exploratory project, a description of the environmental impacts of a project shall be limited to the proposed drill sites, the proposed wells, and any roads or other facilities that may be required before the exploratory wells can be drilled.

The environmental document for the exploratory project does not need to describe the environmental impacts of any future exploratory or development projects.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Sections 21065.5 and 21090.1, Public Resources Code.

Article 2. General Responsibilities for Geothermal Projects

1682. Contents of a Geothermal Project Application.

An application for a geothermal exploratory project shall include:

(a) A statement declaring that the purpose of the proposed project is to evaluate the presence and characteristics of geothermal resources and that the surface location of each well in the project is at least one-half mile from the surface location of an existing well capable of producing geothermal resources in commercial quantities.

(b) The following information in narrative form:

(1) A description of the project including a regional map showing the location of the proposed well(s).

(2) A statement of whether or not the project is compatible with existing zoning and State and local plans.

(3) A description of the environmental setting.

(4) A description of probable short-term and long-term environmental effects of the project.

(5) A description of measures acceptable to the project sponsor which mitigate the project's probable environmental effects.

(6) A description of any significant adverse environmental impacts which the project sponsor cannot mitigate.

(c) A statement that the sponsor agrees to provide additional environmental information the Division may need to complete any environmental documents required by CEQA.

Note: Authority cited: Sections 3012 and 21082, Public Resources Code. Reference: Sections 3715.5 and 21160, Public Resources Code.

Section 1682.1. Lead Agency CEQA Time Limits for Geothermal Projects.

When the Division accepts an application for a geothermal exploratory project as complete, the Division shall prepare or cause the preparation of the required environmental documents and make a decision on the project within 135 days.

(a) The time limit shall be measured from the date on which the application is accepted as complete.

(b) Within 30 days after receiving an application for a geothermal exploratory project, the Division shall determine whether the application is complete and whether the project will require a Notice of Exemption, an Environmental Impact Report (EIR) or a Negative Declaration.

(c) The Division shall consult with Responsible Agencies to discuss the scope and content of a proposed environmental document pursuant to Section 1683.1(b) of these regulations.

Note: Authority cited: Sections 3012 and 21082, Public Resources Code. Reference: Sections 3715.5, 21080.1 and 21080.3, Public Resources Code.

Article 3. Application of the Act to Geothermal Projects

1683. Federal Geothermal Project Coordination.

Where a geothermal exploratory project will be subject to both CEQA and the National Environmental Policy Act, the Division shall approve or disapprove the project within 135 days.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Sections 3715.5, 21083.5 and 21083.7, Public Resources Code.

1683.1. Consultation in Connection with a Geothermal Project.

(a) Prior to determining whether a Notice of Exemption, Negative Declaration, or EIR is required for a geothermal exploratory project, the Division shall consult with each Responsible Agency and Trustee Agency responsible for natural resources affected by the project.

(b) In connection with a geothermal exploratory project, the Division shall consult with Responsible Agencies to discuss the scope and content of a proposed environmental document as soon as possible but

not later than 30 days after the Division receives an application. The Division may waive this requirement if the project has no significant environmental impact or if the project sponsor agrees to mitigate all foreseeable environmental impacts. This requirement may be met through written correspondence.

NOTE: Authority cited: Sections 3012 and 21082, Public Resources Code. Reference: Sections 3715.5 and 21080.3, Public Resources Code.

1683.2. Geothermal Discretionary Projects
Permitting actions of the Division for geothermal exploratory projects are discretionary under CEQA, when the Division acts as lead agency.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Sections 3715.5 and 21080, Public Resources Code.

1683.5. Responsible Agency CEQA Time Limits.
As soon as possible after receiving a Notice of Preparation and in no event more than 45 days after receiving the notice, a Responsible Agency shall inform the Lead Agency of the scope and content of the environmental information that the Responsible Agency would need in the EIR.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Sections 21000-21176, Public Resources Code.

1683.6. Delegation of Responsibilities for Geothermal Lead Agency.
The Division may delegate its Lead Agency responsibility for geothermal exploratory projects to a county that has adopted a geothermal element for its general plan and agreed to complete its Lead Agency responsibilities for such projects within 135 days of receipt of a complete application for such project.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Sections 21000-21176, Public Resources Code.

1683.7. Delegation of Lead Agency Responsibilities for Geothermal Exploratory Projects.
(a) A request for delegation of Lead Agency responsibilities for geothermal exploratory projects shall contain a letter of request signed by the Chairperson of the Board of Supervisors, copies of the county's adopted geothermal element, the final environmental document on the element, and copies of the county's CEQA procedures which detail the county method of completing its Lead Agency responsibilities for geothermal exploratory projects within 135 days.
(b) Upon receipt of the request, the State Oil and Gas Supervisor shall transmit a copy of the geothermal element and final environmental document to the Office of Planning and Research (OPR) and shall consult with the OPR prior to making a decision on the county's request. The Supervisor may consult with any other agencies, at his or her discretion.
(c) If the geothermal element and CEQA procedures are adequate, the Supervisor shall approve the request.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Sections 21000-21176, Public Resources Code.

Article 4. Evaluating Projects

1684. Categorical Exemptions.

Section 21084 of the Public Resources Code requires these Guidelines to include a list of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of the Environmental Quality Act of 1970.

In response to that mandate, the Secretary for Resources has found that the following classes of projects listed in this article do not have a significant effect on the environment and they are declared to be categorically exempt from the requirement for the preparation of environmental documents. Only those classes of projects that would pertain to the responsibilities of the Division of Oil, Gas, and Geothermal Resources are listed in these regulations.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Section 21084, Public Resources Code.

1684.1. Class 1: Existing Facilities.

Class 1 consists of the operation, repair, maintenance, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features involving negligible or no expansion of use beyond that existing previously. The Class includes, but is not limited to: remedial, maintenance, conversion, and abandonment work on oil, gas, injection, and geothermal wells involving the alteration of well casing, such as perforating and casing repair, removal, or replacement; installation or removal of downhole production or injection equipment, cement plugs, bridge plugs, and packers set to isolate production or injection intervals.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Section 21080, Public Resources Code.

1684.2. Class 4: Minor Alterations to Land.

Class 4 consists of drilling operations that result only in minor alterations with negligible or no permanent effects to the existing condition of the land, water, air, and/or vegetation.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Section 21080, Public Resources Code.

Article 5. Evaluation of Environmental Impact Reports

1685. Adequate Time for Review and Comment.

The Department shall provide adequate time for other agencies and members of the public to review and comment on EIR's that the Department or one of its subdivisions prepares. The review periods the Department sets shall coincide with those the State Clearinghouse sets, provided that the review period for draft EIR's for geothermal exploratory projects shall be no longer than 30 calendar days.

NOTE: Authority cited: Section 21082, Public Resources Code. Reference: Sections 3715.5 and 21092, Public Resources Code.

CHAPTER 3. SELECTION OF PROFESSIONAL SERVICE FIRMS

1690. Selection of Professional Service Firms.

(a) The purpose of these regulations is to establish those procedures authorized and required by Chapter 10 (commencing with Section 4525) of Division 5 of Title 1 of the Government Code.

(b) Selection by the Division for professional services of private architectural, landscape architectural, engineering, environmental, land surveying, or construction project management firms shall be on the basis of demonstrated competence and on the professional qualifications necessary for the satisfactory performance of the services required. Selection of the services of analytical laboratory, forestry, geological,geophysical, and other firms shall be on this same basis when the additional services qualify as environmental services or ancillary services logically or justifiably performed in connection with architectural, landscape architectural, engineering, environmental, land surveying, or construction project management services.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code; and Section 4526, Government Code. Reference: Sections 4525-4529.5, Government Code.

1690.1. Definitions, as Used in These Regulations.

(a) **"Division"** means the Division of Oil, Gas, and Geothermal Resources in the Department of Conservation.

(b) **"Small business"** shall mean a small business firm as defined by the Director of General Services (Section 1896, Title 2 of California Code of Regulations) pursuant to Section 14837 of the Government Code.

(c) **"Architectural, landscape architectural, engineering, environmental, land surveying, and construction project management services"** are those services to be procured outside State of California Civil Service procedures and of a character necessarily rendered by an architect, landscape architect, engineer, environmental specialist, land surveyor, and construction project management contractor, but may include ancillary services logically or justifiably performed in connection therewith.

(d) **"Project"** means a project as defined in Section 10105 of the Public Contract Code, or as defined in Public Resources Code Section 21065.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5 and 14837, Government Code; and Section 10105, Public Contract Code; and Section 21065, Public Resources Code.

1691. Establishment of Criteria.

(a) The Division shall establish criteria, on a case-by-case basis, which will comprise the basis for selection for each project. The criteria shall include, but is not limited to, such factors as professional excellence, demonstrated competence, specialized experience of the firm, education and experience of key personnel to be assigned, staff capability, workload, ability to meet schedules, nature and quality of completed work, reliability and continuity of the firm, location, and other considerations deemed relevant. Such factors shall be weighted by the Division according to the nature of the project, the needs of the State and complexity and special requirements of the specific project.

(b) In no event shall the criteria include practices which might result in unlawful activity including, but not limited to, rebates, kickbacks, or other unlawful consideration. Division staff with a relationship to a person or business entity seeking a contract under this section are prohibited from participating in the selection process if the Division staff would be subject to the prohibition of Government Code Section 87100.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5 and 87100, Government Code.

1692. Estimate of Value of Services.

Before any discussion with any firm concerning fees, the Division may cause an estimate of the value of such services to be prepared. This estimate shall serve as a guide in determining fair and reasonable compensation for the services rendered. Such estimate shall be, and remain, confidential until award of contract or abandonment of any further procedure for the services to which it relates. At any time the Division determines the estimates to be unrealistic because of rising costs, special conditions, or for other relevant considerations, the estimate may be reevaluated and modified if necessary.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5, Government Code.

1693. Request for Qualifications.

(a) Where a project requires architectural, landscape architectural, engineering, environmental, land surveying, or construction project management services, the Division shall make an announcement in a publication of the respective professional society. Additionally, the Division may publish an announcement in a construction trade journal or in other appropriate publication, if any exist. The announcement shall be published within a reasonable time frame so that a lengthy publication delay does not adversely affect the project.

(b) The announcement shall contain the following information: The nature of the work, the criteria upon which the award shall be made, and the time within which statements of interest, qualification and performance data will be received.

(c) The Division shall endeavor to provide to all small business firms who have indicated an interest in receiving such, a copy of each announcement for projects for which the Division concludes that small business firms could be especially qualified. A failure of the Division to send a copy of an announcement to any firm shall not operate to preclude any contract.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5, Government Code.

1694. Selection of Firm.

After expiration of the time period stated in the announcement, the Division shall evaluate statements of qualifications and performance data which have been submitted to the Division. Discussions shall be conducted with no less than three firms regarding the required service. Where three firms cannot be found which could provide the required service, a full explanation including names and addresses of firms and individuals requested to submit proposals must be entered in the files. From the firms with which discussions are held, the Division shall select no less than three, provided at least three firms submit proposals, in order of preference, based upon the established criteria, which are deemed to be the most highly qualified to provide the services required.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5, Government Code.

1695. Negotiation.

The Division shall attempt to negotiate a contract with the most highly qualified firm. When the Division is unable to negotiate a satisfactory contract with this firm with fair and reasonable compensation provisions, as determined by the procedure set forth in Section 1692 if those procedures were used, negotiations shall be terminated. The Division shall then undertake negotiations with the second most qualified firm on the same basis. Failing accord, negotiations shall be terminated. The Division shall then undertake negotiations with the third most qualified firm on the same basis. Failing accord, negotiations shall be terminated. Should the Division be unable to negotiate a satisfactory contract at fair and reasonable compensation with any of the selected firms, additional firms may be selected in the manner prescribed in this chapter and the negotiation procedure continued.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5, Government Code.

1696. Amendments.

In instances where the Division effects a necessary change in the project during the course of performance of the contract, the firm's compensation may be adjusted by negotiation of a mutual written agreement in a fair and reasonable amount where the amount of work to be performed by the firm is changed from that which existed previously in the contemplation of the parties.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5, Government Code.

1697. Contracting in Phases.

Should the Division determine that it is necessary or desirable to have a given project performed in phases, it will not be necessary to negotiate the total contract price or compensation provisions in the initial instance, provided that the Division shall have determined that the firm is best qualified to perform the whole project at a fair and reasonable cost, and the contract contains provisions that the Division, at its option, may utilize the firm for other phases and that the firm will accept a fair and reasonable price for subsequent phases to be later negotiated and reflected in a subsequent written instrument. The procedure with regard to estimates and negotiation shall otherwise be applicable.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5, Government Code

1698. Division's Power to Require Bids.

Where the Division determines that the services needed are technical in nature and involve little professional judgment and that requiring bids would be in the public interest, a contract shall be awarded on the basis of bids rather than by following the foregoing procedures for requesting proposals and negotiations.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5, Government Code.

1699. Exclusions.

The provisions of this article shall not apply to service agreements for an architect, landscape architect, engineer, environmental specialist, land surveyor, or construction project management contractor, engaged to

provide consulting services on specific problems on projects where the architectural, landscape architectural, engineering, environmental, land surveying, or construction project management work is being performed by State of California Civil Service employees nor to service agreements for the services of recognized experts retained as consultants.

NOTE: Authority cited: Section 4526, Government Code; and Section 3013, Public Resources Code. Reference: Sections 4525-4529.5, Government Code.

CHAPTER 4. DEVELOPMENT, REGULATION, AND CONSERVATION OF OIL AND GAS RESOURCES

Subchapter 1. Onshore Well Regulations

Article 1. General

1712. Scope of Regulations.

These regulations shall be statewide in application for onshore drilling, production, and injection operations. All onshore prospect, development, and service wells shall be drilled and operated in accordance with these regulations, which shall continue in effect until field rules are established by the Supervisor pursuant to Section 1722(k). If field rules are established, oil and gas operations shall be performed in accordance with those field rules.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1714. Approval of Well Operations.

Written approval of the Supervisor is required prior to commencing drilling, reworking, injection, plugging, or plugging and abandonment operations, with the exception that temporary approval to commence such operations may be granted by the Supervisor or a representative of the Supervisor when such operations are necessary to avert a threat to life, health, property, or natural resources, or when approved operations are in progress and newly discovered well conditions are such that immediate corrective or plugging and abandonment operations are desirable. Notwithstanding such temporary approval, the operator shall file immediately a written notice of intention to carry out a temporarily approved program.

In addition, written approval of the Supervisor is required prior to utilizing any well, including a plugged and abandoned well, for anything other than its currently approved purpose, such as conversion to injection or production, use as a sacrificial anode in a cathodic-protection program, or conversion to a freshwater well.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Sections 3008, 3106, 3203 and 3229, Public Resources Code.

Article 2. Definitions

1720. Definitions.

(a) "**Critical well**" means a well within:

(1) 300 feet of the following:

(A) Any building intended for human occupancy that is not necessary to the operation of the well; or

(B) Any airport runway.

(2) 100 feet of the following:

(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;

(B) Any navigable body of water or watercourse perennially covered by water;

(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or

(D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the Supervisor upon his or her own judgment or upon written request of an operator. This written request shall contain justification for such an exception.

(b) "**Rework**" means any operation subsequent to drilling that involves deepening, redrilling, plugging, or permanently altering in any manner the casing of a well or its function.

(c) "**New pool**" means, for the purpose of this subchapter, a pool discovered on or after January 1, 1974.

(d) "**Directional survey**" means a well survey that determines the deviation of the hole in degrees from the vertical and the direction (azimuth) and amount of horizontal deviation of the hole from the surface location.

(e) "**Drift-only survey**" means a well survey that determines the deviation of the hole in degrees from the vertical.

(f) "**Operations**" means any one or all of the activities of an operator covered by Division 3 of the Public Resources Code.

(g) "**Onshore well**" means a well located on lands that are not submerged under ocean waters or inland bays during mean high tide.

NOTE: Wells directionally drilled offshore from onshore locations shall fall within the scope of the Onshore Regulations and wells directionally drilled onshore from offshore locations shall fall within the scope of the Offshore Regulations (Subchapter 1.1).

(h) "**Ultimate economic recovery**" means the maximum physical amount of a substance, such as oil or gas, that can be recovered without economic loss.

(i) "**Economic loss**" means the loss that occurs when the lifetime discounted revenue after current dollar operating costs, including royalties and ad valorem, severance, and excise taxes, becomes less than the initial drilling and completion costs. The discount rate shall be equal to current prime lending rates plus two percent.

NOTE: Authority cited: Sections 3013 and 3609, Public Resources Code. Reference: Sections 3000, 3013, 3106, and 3609, Public Resources Code.

Article 2.1. Well Spacing Patterns-New Pools

1721. Objectives and Policy.

The objectives of this article are to prevent waste, protect correlative rights, increase the ultimate economic recovery of oil and gas, or either, from new pools, and protect health, safety, welfare, and the environment.

To achieve the ultimate economic recovery of oil and gas, it shall be the policy of the Supervisor to give the greatest consideration to the minimum spacing, in acres per well, that can be established based on the geologic geometry of the pool and the area that can be effectively and efficiently drained by a well without economic loss.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.1. Set Back.

The producing interval of any well drilled into a new pool after the effective date of this section shall be not less than 75 feet from an outer boundary line.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.2. Well Spacing Initiated by Supervisor.

(a) Whenever a new pool is discovered, the Supervisor may issue a notice of intent to establish a well-spacing plan for the pool. The notice shall specify the well-spacing plan proposed by the Supervisor. The notice shall be delivered or mailed to all operators in the pool and any other affected persons whose identity is known to or can readily be ascertained by the Division, and shall be published in a newspaper of general circulation in the county in which the pool is located.

(b) The notice shall provide that the well spacing plan proposed by the Supervisor shall take effect as an order of the Supervisor on the 31st day after the date of the notice unless within 30 days after the date of the notice the Supervisor receives a written objection to the proposed well spacing plan from any affected person, submitting a written objection is a prerequisite to any challenge to the implementation of a well spacing plan initiated by the Supervisor. If a written objection is timely received, the Supervisor shall set a hearing on the well spacing proposal and shall give notice of that hearing in the manner provided above, within 10 days of receipt of the written objection. The hearing shall be held at a time not less than 15 days nor more than 60 days from the date of the notice and at a place within the oil and gas district where the new pool is located. The hearing may be continued for a period not to exceed 60 days with the consent of all those affected persons having informed the Division of their intent to participate in the hearing.

(c) Within 45 days following the hearing, the Supervisor shall issue an order in the form of a written decision either providing no well spacing plan or specifying a well spacing plan for the pool. If a well spacing plan is adopted, the plan shall describe the pool to which it applies and set forth the surface and subsurface well spacing pattern for all wells to be drilled or redrilled into the pool.

(d) The Supervisor shall mail or deliver the written decision to all operators in the pool and all other previously identified affected persons.

(e) The Supervisor may request at any time from any operator in the pool any or all of the data listed in Section 1721.3 for use in making the well spacing determination. If such data are neither supplied nor otherwise available to the Supervisor, the Supervisor nevertheless may make a well spacing determination using methods found in petroleum industry literature or by analogy to similar pools.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Sections 3609, Public Resources Code.

1721.3. Petition for Well Spacing.

Any affected person may, at any time after the discovery of a new pool, petition the Supervisor to adopt, pursuant to Public Resources Code Section 3609, a well-spacing plan other than that specified in Public Resources Code Sections 3600 to 3608.1, inclusive, or Section 1721.1 hereof. The petition shall be supported by information necessary to establish the need for and extent of such a well-spacing plan. The petition shall contain the following data pertaining to the pool for which well-spacing is sought and shall include the source (i.e., laboratory analyses, field measurements, published reports, etc.) from which such data are derived:

(a) Lease map of the area showing current lease operator and well locations.

(b) Structural contour map drawn on a geologic marker at or near the top of the pool, which includes estimated productive limits of the pool.

(c) At least two geologic cross sections, one that is parallel to and one that is perpendicular to the structural or depositional strike, and through at least one producing well in the pool.

(d) Representative electric log to a depth below the producing pool (if not already shown on the cross section) identifying all geologic units, formations, and oil or gas zones.

(e) Average net productive thickness in feet.

(f) Average effective porosity as a percent of bulk volume.
(g) Average initial oil, water, and gas saturations as a percent of pore volume.
(h) Most probable oil and gas recovery factors as percents of original oil and gas in place.
(i) Average initial stabilized oil and gas producing rates in barrels per day per well and thousand standard cubic feet per day per well.
(j) Complete reservoir pressure history, including the initial shut-in bottom hole pressure and the bubble point pressure of a crude oil system or dew point pressure of a condensate system.
(k) Reservoir temperature in degrees Fahrenheit.
(l) Solution gas/oil ratio at bubble point pressure and reservoir temperature.
(m) Initial oil formation volume factor as reservoir barrels per stock tank barrel.
(n) Average API gravity of stock tank oil and specific gravity of produced gas.
(o) Average current drilling and completion cost in dollars per well.
(p) Average current operating cost in dollars per well per year, including anticipated workover costs.
(q) Current market value of oil and gas production in dollars per stock tank barrel and dollars per thousand standard cubic feet.
(r) Amount of all royalty interests, including overriding royalties, if any, in the tracts proposed for inclusion in the well-spacing plan.
(s) Current ad valorem, severance, and excise taxes levied on the working interests, or production attributable to the working interests, proposed for inclusion in the well-spacing plan. Failure to supply in the petition any of these data that are available and their source shall be grounds for denial of the petition without a hearing.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.3.1. Action on Petition for Well Spacing.
(a) Within 30 days of receipt of a petition for well spacing deemed complete by the Division, the Supervisor shall issue a notice setting a time and place for a hearing on the petition. The notice of hearing on the petition shall provide that the hearing shall be held not less than 15 days nor more than 60 days from the date of the notice and at a place within the oil and gas district in which the new pool is located. The hearing may be continued for a period not to exceed 60 days with the consent of all those affected persons having informed the Division of their intent to participate in the hearing. The notice of hearing shall be given in the manner prescribed in Section 1721.2. The hearing shall not be limited to consideration of the well-spacing plan proposed in the petition but shall encompass consideration of any appropriate well-spacing plan for the pool.
(b) Within 45 days following the hearing, the Supervisor shall issue an order in the form of a written decision which either shall refuse to adopt a well-spacing plan or shall adopt a well-spacing plan for the pool based on scientific principles and good oilfield practices. The adopted plan shall describe the pool to which it applies and set forth the surface and subsurface well-spacing pattern for all wells to be drilled or redrilled into the pool.
(c) The Supervisor shall mail or deliver the written decision to all operators in the pool and all other previously identified affected persons.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.4. No New Drilling or Reworking Pending Decision on Well Spacing.

Upon the issuance by the Supervisor of a notice of intent to establish a well spacing plan under Section 1721.2 or upon the filing of a complete petition for well spacing under Section 1721.3, no drilling or reworking operations shall begin on any well to be completed in the pool subject to possible well spacing even if the operator has an approved notice of intention to drill or rework until an order has been issued by the Supervisor that disposes with all the matters in the Supervisor's notice or in the petition. If drilling or reworking operations have started in a well prior to the issuance of a notice or the filing of a petition, the operations may continue until completion. This temporary suspension of drilling and reworking operations is for the purpose of preventing operations during the pendency of well spacing proceedings that would preclude the establishment of an optimum spacing pattern.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.5. Judicial Review of Order of Supervisor.

There shall be no appeal to the Director from an order of the Supervisor either adopting or failing to adopt a well-spacing plan. Judicial review of any such order may be sought directly.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.6. Revision or Repeal of Spacing Plan.

Any well-spacing plan adopted by the Supervisor shall be subject to revision or repeal pursuant to either the initiative of the Supervisor or a petition of an affected person. Any revision or repeal shall be preceded by notice and hearing as provided in Section 1721.2.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.7. Exceptions.

The Supervisor may approve the drilling, redrilling, or production of a well which does not comply with the requirements of a well-spacing plan adopted pursuant to this article or with the set back requirement of section 1721.1 of these regulations if, in the opinion of the Supervisor, such drilling, redrilling, or production is necessary to accommodate the use of onshore or offshore central drilling sites; to protect health, safety, welfare, or the environment; to prevent waste; or to otherwise increase the ultimate economic recovery of oil and gas.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.8. Pooling.

A well-spacing plan adopted by the Supervisor shall require that all or certain parcels of land be included in a voluntary or mandatory pooling agreement if necessary to protect correlative rights. The Supervisor may provide, in any order adopting a well-spacing plan, for a period not to exceed 60 days from the date of the order during which the affected parties shall be allowed to attempt to pool voluntarily their respective interests. Such period may be extended at the Supervisor's discretion upon the written request of the affected parties. Any

well-spacing order providing a period for an attempt at voluntary pooling is not a final order of the Supervisor until either voluntary pooling has been accomplished and the Supervisor notified of it or the Supervisor has ordered mandatory pooling upon the failure of the affected parties to reach a pooling agreement voluntarily.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

1721.9 Surveys.

For the purpose of enforcement of this article, the Supervisor may order that a directional survey or drift-only survey of a well be made and filed with the Supervisor before the well can be produced. If such a survey shows that the producing interval of a well is less than 75 feet from an outer boundary line or does not conform to the well-spacing plan, then written approval must be obtained from the Supervisor before the well can be produced.

NOTE: Authority cited: Section 3609, Public Resources Code. Reference: Section 3609, Public Resources Code.

Article 3. Requirements

1722. General.

(a) All operations shall be conducted in accordance with good oilfield practice.

(b) The operator for a facility or group of related facilities shall develop a spill contingency plan. Spill contingency plans shall also be developed by the operator for those facilities within gas fields that produce condensate at an average rate of at least one barrel per day or where condensate storage volume exceeds 50 barrels. The plan(s) shall be filed with the appropriate Division district office within six months of the effective date of Section 1722.9 or within three months after initial production or acquisition of a facility. Plans prepared pursuant to Federal Environmental Protection Agency regulations (SPCC Plans) may fulfill the provisions of this subsection if such plans are determined to be adequate by the appropriate Division district deputy. If, in the judgment of the Supervisor, a plan becomes outdated, the Supervisor may require that the plan be updated to ensure that it addresses and applies to current conditions and technology.

(c) For certain critical or high-pressure wells designated by the Supervisor, a blowout prevention and control plan, including provisions for the duties, training, supervision, and schedules for testing equipment and performing personnel drills, shall be submitted by the operator to the appropriate Division district deputy for approval.

(d) Notices of intention to drill, deepen, redrill, rework, or plug and abandon wells shall be completed on current Division forms and submitted, in duplicate, to the appropriate Division district office for approval. Such notices shall include all information required on the forms, and such other pertinent data as the supervisor may require. Notices of intention and approvals will be canceled if the proposed operations have not commenced within one year of receipt of the notice. However, an approval for proposed operations may be extended for one year if the operator submits a supplementary notice prior to the expiration of the one-year period and can show good cause for such an extension. For the purpose of interpretation and enforcement of provisions of this section, operations, when commenced, must be completed in a timely and orderly manner.

(e) A copy of the operator's notice of intention and any subsequent written approval of proposed operations by the Division shall be posted at the well site throughout the operations.

(f) Operators shall give the appropriate Division district office sufficient advance notice of the time for inspections and tests requiring the presence of Division personnel.

(g) Operations approved by the Division shall not deviate from the approved program without prior Division approval, except in an emergency.

(h) Oil spills shall be promptly reported to the California Emergency Management Agency by calling the toll-free telephone number (800) 852-7550 and by contacting the agencies specified in the operator's spill contingency plan.

(i) Blowouts, fires, serious accidents, and significant gas or water leaks resulting from or associated with an oil or gas drilling or producing operation, or related facility, shall be promptly reported to the appropriate Division district office.

(j) The use of radioactive materials in wells shall comply with the California Department of Health Services regulations in Title 17, Division 1, Chapter 5, Subchapter 4 of the California Code of Regulations. With the exception of radioactive tracers used in injection surveys, the loss of radioactive materials in a well shall be promptly reported to the Department of Health Services pursuant to Section 30350.3 of the above-referenced regulations and to the appropriate Division district office.

(k) When sufficient geologic and engineering information is available from previous drilling or producing operations, operators may make application to the Supervisor for the establishment of field rules, or the Supervisor may establish field rules or change established field rules for any oil or gas field. Before establishing or changing a field rule, the Supervisor shall distribute the proposed rule or change to affected persons and allow at least thirty (30) days for comments from the affected persons. The Supervisor shall notify affected persons in writing of the establishment or change of field rules.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106, 3203, 3208, 3219, 3222, 3223, 3224, 3226, 3229, 3230, 3270, and 3270.1 Public Resources Code.

1722.1. Acquiring Right to Operate a Well.

Every person who acquires the right to operate any well, whether by purchase, transfer, assignment, conveyance, exchange, or otherwise, shall file an indemnity or cash bond, with his or her own name or company as principal, in the appropriate amount to cover obligations covered under the previous operator's bond.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3204, 3205, 3205.1 and 3205.5, Public Resources Code.

1722.1.1. Well and Operator Identification.

(a) Each well location shall have posted in a conspicuous place a clearly visible, legible, permanently affixed sign with the name of the operator, name or number of the lease, and number of the well. These signs shall be maintained on the premises from the time drilling operations cease until the well is plugged and abandoned.

(b) The appropriate Division district deputy may approve existing identification methods if they substantially comply with the intent of this section.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3106, Public Resources Code.

1722.2. Casing Program.

Each well shall have casing designed to provide anchorage for blowout prevention equipment and to seal off fluids and segregate them for the protection of all oil, gas, and freshwater zones. All casing strings shall

be designed to withstand anticipated collapse, burst, and tension forces with the appropriate design factor provided to obtain a safe operation.

Casing setting depths shall be based upon geological and engineering factors, including but not limited to the presence or absence of hydrocarbons, formation pressures, fracture gradients, lost circulation intervals, and the degree of formation compaction or consolidation. All depths refer to true vertical depth (TVD) below ground level.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3219 and 3220, Public Resources Code.

1722.3. Casing Requirements.

(a) Conductor casing. This casing shall be cemented at or driven to a maximum depth of 100 feet. Exceptions may be granted by the appropriate Division district deputy if conditions require deeper casing depth.

(b) Surface casing. Surface casing shall be cemented into or through a competent bed and at a depth that will allow complete well shut-in without fracturing the formation immediately below the casing shoe. As a general guideline, the surface casing for prospect wells shall be cemented at a depth that is at least 10 percent of the proposed total depth, with a minimum of 200 feet and a maximum of 1,500 feet of casing. A second string of surface casing, cemented into or through a competent bed, shall be required in prospect wells if the first string has not been cemented in a competent bed or if unusual drilling hazards exist. In development wells, the surface casing requirement shall be determined on the basis of known field conditions. The appropriate Division district deputy may vary these general surface casing requirements, including the adoption of a field rule, consistent with known geological conditions and engineering factors, to provide adequate protection for freshwater zones and blowout control.

(c) Intermediate casing. This casing may be required for protection of oil, gas, and freshwater zones, and to seal off anomalous pressure zones, lost circulation zones, and other drilling hazards.

(d) Production casing. This casing shall be cemented and, when required by the Division, tested for fluid shutoff above the zone or zones to be produced. The test may be witnessed by a Division inspector. When the production string does not extend to the surface, at least 100 feet of overlap between the production string and next larger casing string shall be required. This overlap shall be cemented and tested by a fluid-entry test to determine whether there is a competent seal between the two casing strings. A pressure test may be allowed only when such test is conducted pursuant to an established field rule. The test may be witnessed by a Division inspector.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Sections 3106 and 3220, Public Resources Code.

1722.4. Cementing Casing.

Surface casing shall be cemented with sufficient cement to fill the annular space from the shoe to the surface. Intermediate and production casings, if not cemented to the surface, shall be cemented with sufficient cement to fill the annular space to at least 500 feet above oil and gas zones, and anomalous pressure intervals. Sufficient cement shall also be used to fill the annular space to at least 100 feet above the base of the freshwater zone, either by lifting cement around the casing shoe or cementing through perforations or a cementing device placed at or below the base of the freshwater zone. All casing shall be cemented in a manner that ensures proper distribution and bonding of cement in the annular spaces. The appropriate Division district deputy may require a cement bond log, temperature survey, or other survey to determine cement fill behind casing. If it is

determined that the casing is not cemented adequately by the primary cementing operation, the operator shall recement in such a manner as to comply with the above requirements. If supported by known geologic conditions, an exception to the cement placement requirements of this section may be allowed by the appropriate Division district deputy.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Sections 3106, 3220 and 3222-3224, Public Resources Code.

1722.5. Blowout Prevention and Related Well Control Equipment.

Blowout prevention and related well control equipment shall be installed, tested, used, and maintained in a manner necessary to prevent an uncontrolled flow of fluid from a well. Division of Oil, Gas, and Geothermal Resources publication No. MO 7, "Blowout Prevention in California," shall be used by Division personnel as a guide in establishing the blowout prevention equipment requirements specified in the Division's approval of proposed operations.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3219 and 3220, Public Resources Code.

1722.6. Drilling Fluid Program.

The operational procedures and the properties, use, and testing of drilling fluid shall be such as are necessary to prevent the uncontrolled flow of fluids from any well. Drilling fluid additives in sufficient quantity to ensure well control shall be kept readily available for immediate use at all times. Fluid which does not exert more hydrostatic pressure than the known pressure of the formations exposed to the well bore shall not be used in a drilling operation without prior approval of the Supervisor.

(a) Before removal of the drill pipe or tubing from the hole is begun, the drilling fluid shall be conditioned to provide adequate pressure overbalance to control any potential source of fluid entry. Proper overbalance shall be confirmed by checking the annulus to ensure that there is no fluid flow or loss when there is no fluid movement in the drill pipe or tubing. The drilling fluid weight, the weight and volume of any heavy slug or pill, and the fact that the annulus was checked for fluid movement shall be noted on the driller's log. During removal of the drill pipe or tubing from the hole, a hole-filling program shall be followed to maintain a satisfactory pressure overbalance condition.

(b) Tests of the drilling fluid to determine viscosity, water loss, weight, and gel strength shall be performed at least once daily while circulating, and the results of such tests shall be recorded on the driller's log. Equipment for measuring viscosity and fluid weight shall be maintained at the drill site. Exceptions to the test requirements may be granted for special cases, such as shallow development wells in low pressure fields, through the field rule process.

(c) Disposal of drilling fluids shall be done in accordance with Section 1775, Subchapter 2 of these regulations.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3219 and 3220, Public Resources Code.

1722.7 Directional Surveys.

The Supervisor may order that a well be directionally surveyed.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Sections 3106 and 3224, Public Resources Code.

1722.8. Life-of-Well and Life-of-Production Facility Bonding Requirements.

(a) Life-of-well and life-of-production facility bonds may be required by the Supervisor in addition to bond coverage specified in the Public Resources Code Sections 3202, 3204, 3205, 3205.2 and 3206.

(b) The Supervisor may order a life-of-well and/or a life-of-production facility bond for an operator with a history of violating Public Resources Code, Division 3, Chapter 1 and the regulations promulgated thereunder, or that has outstanding liabilities to the state associated with a well or production facility. When determining whether to order a life-of-well and/or a life-of-production facility bond the Supervisor shall consider each of the following:

(1) The severity of the cited violations or civil penalties that the operator has received, and the potential for serious damage to health, safety, or natural resources caused by the violations.

(2) Any ongoing failure to address a cited violation and any pattern of recurring or repeated violations by the operator.

(3) Any evidence that the operator's facility maintenance practices are not in compliance with Public Resources Code, Division 3, Chapter 1 and the regulations promulgated thereunder.

(4) Any failure to comply an order of the Supervisor.

(5) The severity of the spills or leaks that have occurred that the operator is responsible for, and the potential for serious damage to health, safety, or natural resources caused by the spills or leaks.

(6) The extent to which any spills or leaks that the operator is responsible for were the result of a violation of any statute or regulation.

(7) The extent to which any spills or leaks that the operator is responsible for were the result of a lack of training or supervision of the operator's employees or contractors.

(8) The extent to which any spills or leaks that the operator is responsible for were the result of a failure to exercise good oilfield practices.

(9) If the operator has any outstanding liability to the state associated with a well or production facility, whether the liability is the result of a violation of a statute or regulations, and whether the operator is making a good faith effort to repay the liability.

(c) The Supervisor shall establish a life-of-well bond amount to cover the cost to properly plug and abandon each well, including site restoration, and the cost to finance a spill response and incident cleanup.

(1) The Supervisor shall estimate the cost to plug and abandon based on the wells condition, total depth, required abandonment operations, site restoration prescribed by regulation, and similar well abandonments within the field or lease.

(2) The life-of-well bond coverage for a well shall be no less than the amount prescribed in Public Resources Code Section 3204.

(3) The Supervisor shall annually review the amount of a life-of-well bond and, if needed, establish a new bond amount to ensure proper plugging and abandonment of the well, and the financing of spill response and incident cleanup.

(d) The Supervisor shall establish a life-of-production facility bond amount to cover the costs to decommission each production facility, and the cost to finance a spill response and incident cleanup.

(1) The Supervisor shall estimate the cost based on the number and volume of tanks, the estimated volume and types of fluids in the tanks, attendant facility equipment and stored materials onsite, the cost of similar facility decommissioning and removal projects, and any estimates received from licensed demolition contractors.

(2) The Supervisor shall annually review the amount of a life-of-production facility bond and, if needed, establish a new bond amount to ensure the safe decommissioning of each production facility, and the financing of spill response and incident cleanup.

(e) Upon failure of an operator to perform appropriate spill response and cleanup, or upon failure of an operator to comply with corrective action as required in an order of the Supervisor, the Supervisor may

perform work in accordance with Public Resources Code Section 3226. The Supervisor may levy upon a life-of-well or life-of-production facility bond to pay the cost of the work.

(f) The operator shall replenish the amount levied from a life-of-well or life-of-production facility bond within 30 days from when the Supervisor levied the bond.

NOTE: Authority cited: Sections 3013 and 3270.4, Public Resources Code. Reference: Sections 3204, 3226 and 3270.4, Public Resources Code.

1722.8.1. Bonding Language.

The conditions of a bond required under Public Resources Code Section 3270.4 shall be stated in substantially the following language: "If the ____, the above bounden principal, shall well and truly comply with all the provisions of Division 3 (commencing with Section 3000) of the Public Resources Code and shall obey all lawful orders of the State Oil and Gas Supervisor or the district deputy or deputies, subject to subsequent appeal as provided in that division, and shall pay all charges, costs, and expenses incurred by the supervisor or the district deputy or deputies in respect of the well, production facility, or the property or properties of the principal, or assessed against the well, production facility, or the property or properties of the principal, in pursuance of the provisions of that division, then this obligation shall be void; otherwise, it shall remain in full force and effect."

NOTE: Authority cited: Sections 3013 and 3270.4, Public Resources Code. Reference: Section 3270.4, Public Resources Code.

1722.9. Spill Contingency Plan Requirements.

A spill contingency plan shall be designed to prevent and respond to unauthorized releases and contain the following:

(a) A list of the operator's 24-hour emergency contact telephone numbers. The operator's emergency contact shall be prepared to provide Division staff complete information about the production facility emergency shutdown procedures, including a list of safety shutdown devices including, but not limited to, kill switches, emergency shut-down devices, or master valves.

(b) A list of available personal safety equipment, including location and maintenance frequency.

(c) A one page quick-action checklist for use during initial stages of a spill response.

(d) A list of required local, state and federal agency notifications with telephone numbers, including, but not limited to, the phone number for the appropriate Division district office and the phone number for reporting spills to the California Emergency Management Agency.

(e) A list of control and/or cleanup equipment available onsite or locally, with contact procedures.

(f) A map of the production facilities covered by the plan, including:

(1) Labeling of all permanent tanks, equipment, and pipelines. If locations are not known, the most probable location shall be shown and identified as a probable location.

(2) Identification of access roads for emergency response.

(3) Labeling of all out-of-service equipment.

(4) Labeling of all sumps and catch basins.

(5) Volume of all tanks and storage containers covered by the plan, listing the type of fluid stored.

(6) All designated waterways within one-quarter mile of the facility.

(7) Location of secondary containment with access routes.

(8) Topography or drainage flow direction.

(9) All storm drains within one-quarter mile of the site.

(10) A fluid flow schematic.

(g) A list of all chemicals for which a Material Safety Data Sheet is required, and the location of the Material Safety Data Sheets for those chemicals.

(h) Procedures for making regular facility inspections, and maintenance of related inspection records.

(i) Maximum and typical produced fluid processing rates.

(j) Typical volumes of liquids stored at the facility.

(k) A list of additional containment features for production facilities in drainages with direct access to waterways or urban areas as determined necessary by the Supervisor.

(l) A list of corrosion prevention or corrosion monitoring techniques utilized.

(m) A description of all installed sensor and alarm systems. The sensor and alarm systems to be described include, but are not limited to:

(1) Tank overfill.

(2) High and low pressure for pipelines and pressure vessels.

(3) Fire sensors.

(4) H_2S detectors.

(5) Gas detectors.

(n) A description of the training provided to implement the plan.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Sections 3106 and 3270.1, Public Resources Code.

1723. Plugging and Abandonment-General Requirements.

(a) Cement Plugs. In general, cement plugs will be placed across specified intervals to protect oil and gas zones, to prevent degradation of usable waters, to protect surface conditions, and for public health and safety purposes. Cement may be mixed with or replaced by other substances with adequate physical properties, which substances shall be approved by the Supervisor. The application of these mixed materials and other substances to particular wells shall be at the discretion of the district deputy.

(b) Hole Fluid. Mud fluid having the proper weight and consistency to prevent movement of other fluids into the well bore shall be placed across all intervals not plugged with cement, and shall be surface poured into all open annuli.

(c) Plugging by Bailer. Placing of a cement plug by bailer shall not be permitted at a depth greater than 3,000 feet. Water is the only permissible hole fluid in which a cement plug shall be placed by bailer.

(d) Surface Pours. A surface cement-pour shall be permitted in an empty hole with a diameter of not less than 5 inches. Depth limitations shall be determined on an individual well basis by the district deputy.

(e) Blowout Prevention Equipment. Blowout prevention equipment may be required during plugging and abandonment operations. Any blowout prevention equipment and inspection requirements determined necessary by the district deputy shall appear on the approval to plug and abandon issued by the Division.

(f) Junk in Hole. Diligent effort shall be made to recover junk when such junk may prevent proper plugging and abandonment either in open hole or inside casing. In the event that junk cannot be removed from the hole and fresh-saltwater contacts or oil or gas zones penetrated below cannot therefore be properly abandoned, cement shall be downsqueezed through or past the junk and a 100-foot cement plug shall be placed on top of the junk. If it is not possible to downsqueeze through the junk, a 100-foot cement plug shall be placed on top of the junk.

(g) Lost Radioactive Tool. In the event that a source containing radioactive material cannot be retrieved from the hole, a 100-foot standard color dyed (red iron oxide or equivalent red cement dye) cement plug shall be placed on top of the radioactive tool, and a whipstock or other approved deflection device shall be placed on top of the cement plug to prevent accidental or intentional mechanical disintegration of the radioactive

source. In addition, the operator shall comply with the California Department of Health Services regulations in Section 30346 of Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 7, of the California Code of Regulations.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3219 and 3228, Public Resources Code.

1723.1. Plugging of Oil or Gas Zones.

(a) Plugging in an Open Hole. A cement plug shall be placed to extend from the total depth of the well or from at least 100 feet below the bottom of each oil or gas zone, to at least 100 feet above the top of each oil or gas zone.

(b) Plugging in a Cased Hole. All perforations shall be plugged with cement, and the plug shall extend at least 100 feet above the top of a landed liner, the uppermost perforations, the casing cementing point, the water shut-off holes, or the oil or gas zone, whichever is highest.

(c) Special Requirements. Special requirements may be made for particular types of hydrocarbon zones, such as:

(1) Fractured shale or schist;

(2) Massive sand intervals, particularly those with good vertical permeability;

(3) Any depleted productive interval more than 100 feet thick; or

(4) Multiple zones completed in a well.

As a minimum for an open-hole plugging and abandonment, the special requirement shall include a cement plug extending from at least 100 feet below the top of the oil or gas zone to at least 100 feet above the top of the zone.

As a minimum for a cased-hole plugging and abandonment, the special requirement shall include a cement plug extending from at least 25 feet below the top of the uppermost perforated interval to at least 100 feet above the top of the perforations, the top of the landed liner, the casing cementing point, the water shutoff holes, or the zone, whichever is highest.

(d) Bridge Plug. In a multiple zone completion, a single bridge plug above the lowermost zone may be allowed in lieu of cement through that zone if the zone is isolated from the upper zones by cement behind the casing. Subsequent bridge plugs are not allowed unless separated by cement plugs meeting the requirements of Section 1723.1(b). Temporary bridge plugs must be removed and replaced with cement plugs prior to shallower zone completions or well abandonment.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3228, Public Resources Code.

1723.2. Plugging for Freshwater Protection.

(a) Plugging in Open Hole.

(1) A minimum 200-foot cement plug shall be placed across all fresh-saltwater interfaces.

(2) An interface plug may be placed wholly within a thick shale if such shale separates the freshwater sands from the brackish or saltwater sands.

(b) Plugging in a Cased Hole.

(1) If there is cement behind the casing across the fresh-saltwater interface, a 100-foot cement plug shall be placed inside the casing across the interface.

(2) If the top of the cement behind the casing is below the top of the highest saltwater sands, squeeze-cementing shall be required through perforations to protect the freshwater deposits. In addition, a 100-foot cement plug shall be placed inside the casing across the fresh-saltwater interface.

(3) Notwithstanding other provisions of this section, the district deputy may require or allow a cavity shot immediately below the base of the freshwater sands. In such cases, the hole shall be cleaned out to the estimated bottom of the cavity and a 100-foot cement plug shall be placed in the casing from the cleanout point.

(c) Special Plugging Requirements. Where geologic or groundwater conditions dictate, special plugging procedures may be specified to prevent contamination of useable waters by downward percolation of poor quality surface waters, separate water zones of varying quality, and isolate dry sands that are in hydraulic continuity with groundwater aquifers.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Sections 3106 and 3228, Public Resources Code.

1723.3. Plugging at a Casing Shoe.

If the hole is open below a shoe, a cement plug shall extend from at least 50 feet below to at least 50 feet above the shoe. If the hole cannot be cleaned out to 50 feet below the shoe, a 100-foot cement plug shall be placed as deep as possible.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3106 and 3228, Public Resources Code.

1723.5. Surface Plugging.

The hole and all annuli shall be plugged at the surface with at least a 25-foot cement plug. The district deputy may require that inner strings of uncemented casing be removed to at least the base of the surface plug prior to placement of the plug.

All well casing shall be cut off at least 5 feet but no more than 10 feet below the surface of the ground. The district deputy may approve a different cut-off depth, as conditions warrant, including but not limited to excavation or grading operations for construction purposes. As defined in Section 1760(j), a steel plate at least as thick as the outer well casing shall be welded around the circumference of the casing at the top of the casing, after Division approval of the surface plug. The steel plate shall show the well's identification, indicated by the last five digits of the API well number.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1723.6. Recovery of Casing.

(a) Approval to recover all casing possible will be given in the plugging and abandonment of wells where subsurface plugging can be done to the satisfaction of the district deputy.

(b) The hole shall be full of fluid prior to the detonation of any explosives in the hole. Such explosives shall be utilized only by a licensed handler with the required permits.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3106 and 3228, Public Resources Code.

1723.7. Inspection of Plugging and Abandonment Operations.

Plugging and abandonment operations that require witnessing by the Division shall be witnessed and approved by a Division employee. When discretion is indicated by these regulations, the district deputy shall determine which operations are to be witnessed.

(a) Blowout prevention equipment-may inspect and witness testing of equipment and installation.
(b) Oil and gas zone plug-may witness placing and shall witness location and hardness.
(c) Mudding of hole-may witness mudding operations and determine that specified physical characteristics of mud fluid are met.
(d) Freshwater protection:
(1) Plug in open hole-may witness placing and shall witness location and hardness. Plug in cased hole-shall witness placing or location and hardness.
(2) Cementing through perforations-may witness perforating and shall witness cementing operation.
(3) Cavity shot-may witness shooting and shall witness placing or location and hardness of required plug.
(e) Casing shoe plug-shall witness placing or location and hardness.
(f) Casing stub plug-may witness placing or location and hardness.
(g) Surface plug-may witness emplacement and shall witness or verify location.
(h) Environmental inspection (after completion of plugging operations)-shall determine that Division environmental regulations (California Code of Regulations, Title 14, Subchapter 2) have been adhered to.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3228, Public Resources Code.

1723.8. Special Requirements.

The Supervisor, in special cases, may set forth other plugging and abandonment requirements or may establish field rules for the plugging and abandonment of wells. Such cases include, but are not limited to:
(a) The plugging of a high-pressure saltwater zone.
(b) Perforating and squeeze-cementing previously uncemented casing within and above a hydrocarbon zone.
(c) The plugging of particular zones or specifying cleanout intervals within a wellbore.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1723.9. Testing of Idle Wells.

Any well that has not produced oil or natural gas or been used for fluid injection for a continuous six-month period during any consecutive five-year period, prior to or after the adoption of this regulation, must have either the fluid level determined using acoustical, mechanical, or other reliable methods, or other diagnostic tests as approved by the Supervisor. Additional well tests or remedial operations may be required if the fluid level is located above or adjacent to freshwater or potential drinking water zones, or as specified by the appropriate Division district deputy. Subsequent testing periods shall be based on the fluid level in the well, the well's location in relation to freshwater zones, mitigation measures taken by the operator to prevent fluid migration, or other factors determined by the appropriate Division district deputy, upon a showing of good cause. The appropriate district office shall be notified before tests are made, as a Division inspector may witness the operations.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Section 3106, Public Resources Code.

1724. Required Well Records.

The operator of any well drilled, redrilled, deepened, or reworked shall keep, or cause to be kept, an accurate record of each operation on each well including, but not limited to, the following, when applicable:

(a) Log and history showing chronologically the following data:

(1) Character and depth of all formations, water-bearing strata, oil- and gas-bearing zones, lost circulation zones, and abnormal pressure zones encountered.

(2) Casing size, weight, grade, type, condition (new or used), top, bottom, and perforations; and any equipment attached to the casing.

(3) Tubing size and depth, type and location of packers, safety devices, and other tubing equipment.

(4) Casing pressure tests and pressure tests of the casing-tubing annulus, including date, duration, pressure, and percent bleed-off.

(5) Hole sizes.

(6) Cementing and plugging operations, including date, depth, slurry volume and composition, fluid displacement, pressures, calculated or actual fill, and downhole equipment.

(7) Drill-stem, leak-off, or other formation tests, including date, duration, depth, pressures, and recovery (volume and description).

(8) BOPE installation, inspections, and pressure tests.

(9) Water shutoff and lap tests of casing, including date, duration, depth, and results.

(10) Sidetracked casing, tools or other material, collapsed or bad casing, holes in casing, and stuck drill pipe, tubing, or other junk in casing or open hole.

(11) Depth and type of all electrical, physical, or chemical logs, tests, or surveys made.

(12) Production or injection method and equipment.

(b) Core record showing the depth, character, and fluid content, so far as determined, of all cores, including sidewall samples.

(c) Such other information as the Supervisor may require for the performance of his or her statutory duties.

NOTE: Authority cited: Sections 3013 and 3107, Public Resources Code. Reference: Sections 3107, 3106, 3203, 3210, and 3214, Public Resources Code.

1724.1. Records to Be Filed with the Division.

Two true and reproducible copies of the well summary, core record, and history, and all electrical, physical and chemical logs, tests and surveys run, including mud logs shall be filed with the Division within 60 days after the completion, plugging and abandonment, or suspension of operations of a well. Dipmeter surveys shall be submitted in a form indicating the computed direction and amount of dip.

NOTE: Authority cited: Sections 3013, 3106 and 3107, Public Resources Code. Reference: Sections 3107, 3215 and 3216, Public Resources Code.

1724.3. Well Safety Devices for Critical Wells.

Certain wells designated by the Supervisor, that meet the definition of "critical" pursuant to Section 1720(a) and have sufficient pressure to allow fluid-flow to the surface, shall have safety devices as specified by the Supervisor, installed and maintained in operating condition. A description of such safety devices follows:

(a) Surface safety devices.

(1) Fail-close, well shut-in or shut-down devices. Wellhead assemblies shall be equipped with an automatic fail-close valve.

(2) High-low pressure sensors in all flowlines, set to actuate shut in or shut down of the well(s) in the event of abnormal pressures in the flowlines.

(3) Check valves in all headers, except for gas storage wells, to prevent backflow in the event of flowline failure. All flowlines and valves shall be capable of withstanding shut-in wellhead pressure, unless protected by a relief valve with connections to bypass the header.

(4) Fire detection devices, such as fusible plugs, at strategic points in pneumatic, hydraulic, and other shut-in control lines in fire hazard areas.

(5) Remote, manually operated, quick operating shut-in controls at strategic points.

(b) Subsurface safety devices.

(1) A surface-controlled, subsurface tubing safety valve installed at a depth of 50 feet or more below the ground level. For shut-in wells capable of flowing, a tubing plug may be installed in lieu of a subsurface tubing safety valve. Subsurface safety devices shall be installed, adjusted, and maintained to ensure reliable operation. If for any reason a subsurface safety device is removed from a well, a replacement subsurface safety device or tubing plug shall be promptly installed. Any well in which a subsurface safety device or tubing plug is installed shall have the tubing-casing annulus sealed at or below the valve- or plug-setting depth. A bypass-type packer that will seal the annulus on manual or automatic operation of the tubing subsurface safety device will meet this requirement.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3106 and 3219, Public Resources Code.

1724.4. Testing and Inspection of Safety Devices.

(a) All installed well safety devices, required pursuant to Section 1724.3 of this article, shall be tested at least every six (6) months, as follows:

(1) Flow line pressure sensors shall be tested for proper pressure settings.

(2) Automatic wellhead safety valves shall be tested for reliable operation and holding pressure.

(3) Subsurface safety devices shall be tested for reliable operation.

(4) Tubing plugs or packers shall be tested for holding pressure.

(b) The appropriate Division district office shall be notified before such tests are made, as these tests may be witnessed by a Division inspector. Test failures not immediately repaired or corrected and not witnessed by a Division inspector shall be reported to the Division within 24 hours.

(c) The Supervisor may establish a special testing schedule for safety devices other than that specified in this section, based upon equipment performance or special conditions.

(d) The operator shall maintain records, available to Division personnel during business hours, showing the present status and history of each well safety device installed, including dates, details and results of inspections, tests, repairs, reinstallations, and replacements.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3106 and 3219, Public Resources Code.

1724.6. Approval of Underground Injection and Disposal Projects.

Approval must be obtained from this Division before any subsurface injection or disposal project can begin. This includes all EPA Class II wells and air- and gas-injection wells. The operator requesting approval for such a project must provide the appropriate Division district deputy with any data that, in the judgment of the Supervisor, are pertinent and necessary for the proper evaluation of the proposed project.

NOTE: Authority cited: Section 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1724.7. Project Data Requirements.

(NOTE: See Section 1724.8 for special requirements for cyclic steam projects, and Section 1724.9 or supplementary requirements for gas storage projects.)

The data required to be filed with the district deputy include the following, where applicable:

(a) An engineering study, including but not limited to:

(1) Statement of primary purpose of the project.

(2) Reservoir characteristics of each injection zone, such as porosity, permeability, average thickness, areal extent, fracture gradient, original and present temperature and pressure, and original and residual oil, gas, and water saturations.

(3) Reservoir fluid data for each injection zone, such as oil gravity and viscosity, water quality, and specific gravity of gas.

(4) Casing diagrams, including cement plugs, and actual or calculated cement fill behind casing, of all idle, plugged and abandoned, or deeper-zone producing wells within the area affected by the project, and evidence that plugged and abandoned wells in the area will not have an adverse effect on the project or cause damage to life, health, property, or natural resources.

(5) The planned well-drilling and plugging and abandonment program to complete the project, including a flood-pattern map showing all injection, production, and plugged and abandoned wells, and unit boundaries.

(b) A geologic study, including but not limited to:

(1) Structural contour map drawn on a geologic marker at or near the top of each injection zone in the project area.

(2) Isopachous map of each injection zone or subzone in the project area.

(3) At least one geologic cross section through at least one injection well in the project area.

(4) Representative electric log to a depth below the deepest producing zone (if not already shown on the cross section), identifying all geologic units, formations, freshwater aquifers, and oil or gas zones.

(c) An injection plan, including but not limited to:

(1) A map showing injection facilities.

(2) Maximum anticipated surface injection pressure (pump pressure) and daily rate of injection, by well.

(3) Monitoring system or method to be utilized to ensure that no damage is occurring and that the injection fluid is confined to the intended zone or zones of injection.

(4) Method of injection.

(5) List of proposed cathodic protection measures for plant, lines, and wells, if such measures are warranted.

(6) Treatment of water to be injected.

(7) Source and analysis of the injection liquid.

(8) Location and depth of each water-source well that will be used in conjunction with the project.

(d) Copies of letters of notification sent to offset operators.

(e) Other data as required for large, unusual, or hazardous projects, for unusual or complex structures, or for critical wells. Examples of such data are: isogor maps, water-oil ratio maps, isobar maps, equipment diagrams, and safety programs.

(f) All maps, diagrams and exhibits required in Section 1724.7(a) through (e) shall be clearly labeled as to scale and purpose and shall clearly identify wells, boundaries, zones, contacts, and other relevant data.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1724.8. Data Required for Cyclic Steam Injection Project Approval.

The data required by the Division prior to approval of a cyclic steam (steam soak) project include, but are not limited to, the following:

(a) A letter from the operator notifying the Division of the intention to conduct cyclic steam injection operations on a specific lease, in a specific reservoir, or in a particular well.

(b) If cyclic steam injection is to be in wells adjacent to a lease boundary, a copy of a letter notifying each offset operator of the proposed project.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1724.9. Gas Storage Projects.

The data required by the Division prior to approval of a gas storage project include all applicable items listed in Section 1724.7(a) through (e), and the following, where applicable:

(a) Characteristics of the cap rock, such as areal extent, average thickness, and threshold pressure.

(b) Oil and gas reserves of storage zones prior to start of injection, including calculations.

(c) List of proposed surface and subsurface safety devices, tests, and precautions to be taken to ensure safety of the project.

(d) Proposed waste water disposal method.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1724.10. Filing, Notification, Operating, and Testing Requirements for Underground Injection Projects.

(a) The appropriate Division district deputy shall be notified of any anticipated changes in a project resulting in alteration of conditions originally approved, such as: increase in size, change of injection interval, or increase in injection pressure. Such changes shall not be carried out without Division approval.

(b) Notices of intention to drill, redrill, deepen, or rework, on current Division forms, shall be completed and submitted to the Division for approval whenever a new well is to be drilled for use as an injection well and whenever an existing well is converted to an injection well, even if no work is required on the well.

(c) An injection report on a current Division form or in a computerized format acceptable to the Division shall be filed with the Division on or before the 30th day of each month, for the preceding month.

(d) A chemical analysis of the liquid being injected shall be made and filed with the Division whenever the source of injection liquid is changed, or as requested by the Supervisor.

(e) An accurate, operating pressure gauge or pressure recording device shall be available at all times, and all injection wells shall be equipped for installation and operation of such gauge or device. A gauge or device used for injection-pressure testing, which is permanently affixed to the well or any part of the injection system, shall be calibrated at least every six months. Portable gauges shall be calibrated at least every two months. Evidence of such calibration shall be available to the Division upon request.

(f) All injection piping, valves, and facilities shall meet or exceed design standards for the maximum anticipated injection pressure, and shall be maintained in a safe and leak-free condition.

(g) All injection wells, except steam, air, and pipeline-quality gas injection wells, shall be equipped with tubing and packer set immediately above the approved zone of injection within one year after the effective date of this act. New or recompleted injection wells shall be equipped with tubing and packer upon completion or recompletion. Exceptions may be made when there is:

(1) No evidence of freshwater-bearing strata.

(2) More than one string of casing cemented below the base of fresh water.

(3) Other justification, as determined by the district deputy, based on documented evidence that freshwater and oil zones can be protected without the use of tubing and packer.

(h) Data shall be maintained to show performance of the project and to establish that no damage to life, health, property, or natural resources is occurring by reason of the project. Injection shall be stopped if there is evidence of such damage, or loss of hydrocarbons, or upon written notice from the Division. Project data shall be available for periodic inspection by Division personnel.

(i) To determine the maximum allowable surface injection pressure, a step-rate test shall be conducted prior to sustained liquid injection. Test pressure shall be from hydrostatic to the pressure required to fracture the injection zone or the proposed injection pressure, whichever occurs first. Maximum allowable surface injection pressure shall be less than the fracture pressure. The appropriate district office shall be notified prior to conducting the test so that it may be witnessed by a Division inspector. The district deputy may waive or modify the requirement for a step-rate test if he or she determines that surface injection pressure for a particular well will be maintained considerably below the estimated pressure required to fracture the zone of injection.

(j) A mechanical integrity test (MIT) must be performed on all injection wells to ensure the injected fluid is confined to the approved zone or zones. An MIT shall consist of a two-part demonstration as provided in subsections (j)(1) and (2).

(1) Prior to commencing injection operations, each injection well must pass a pressure test of the casing-tubing annulus to determine the absence of leaks. Thereafter, the annulus of each well must be tested at least once every five years; prior to recommencing injection operations following the repositioning or replacement of downhole equipment; or whenever requested by the appropriate Division district deputy.

(2) When required by subsection (j) above, injection wells shall pass a second demonstration of mechanical integrity. The second test of a two-part MIT shall demonstrate that there is no fluid migration behind the casing, tubing, or packer.

(3) The second part of the MIT must be performed within three (3) months after injection has commenced. Thereafter, water-disposal wells shall be tested at least once each year; waterflood wells shall be tested at least once every two years; and steamflood wells shall be tested at least once every five years. Such testing for mechanical integrity shall also be performed following any significant anomalous rate or pressure change, or whenever requested by the appropriate Division district deputy. The MIT schedule may be modified by the district deputy if supported by evidence documenting good cause.

(4) The appropriate district office shall be notified before such tests/surveys are made, as a Division inspector may witness the operations. Copies of surveys and test results shall be submitted to the Division within 60 days.

(k) Additional requirements or modifications of the above requirements may be necessary to fit specific circumstances and types of projects. Examples of such additional requirements or modifications are:

(1) Injectivity tests.

(2) Graphs of time vs. oil, water, and gas production rates, maintained for each pool in the project and available for periodic inspection by Division personnel.

(3) Graphs of time vs. tubing pressure, casing pressure, and injection rate maintained for each injection well and available for periodic inspection by Division personnel.

(4) List of all observation wells used to monitor the project, indicating what parameter each well is monitoring (i.e., pressure, temperature, etc.), submitted to the Division annually.

(5) List of all injection-withdrawal wells in a gas storage project, showing casing-integrity test methods and dates, the types of safety valves used, submitted to the Division annually.

(6) Isobaric maps of the injection zone, submitted to the Division annually.

(7) Notification of any change in waste disposal methods.

NOTE: Authority cited: Section 3013, Public Resources Code. References: Section 3106, Public Resources Code.

Subchapter 1.1 Offshore Well Regulations

Article 1. General

1740. Purpose.

It is the purpose of this subchapter to set forth the rules and regulations governing the drilling, redrilling, production, maintenance, and plugging and abandonment of offshore oil and gas wells in accordance with the provisions of Division 3 of the Public Resources Code.

NOTE: Authority cited: Sections 3000-3013 and 3106, Public Resources Code. Reference: Sections 3203-3220 and 3227-3237, Public Resources Code.

1740.1. Policy.

Section 3106 of Division 3 of the Public Resources Code will be administered with the objective of furthering declared legislative policy; namely, that the Supervisor shall supervise drilling, operation, maintenance, and plugging and abandonment of wells to prevent as far as possible, damage to life, health, property, and natural resources, damage to underground oil and gas deposits from infiltrating water and other causes, loss of oil, gas, or reservoir energy and damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of detrimental substances by reason of the drilling, operation, maintenance, or plugging and abandonment of wells.

1740.2. Scope of Regulations.

They shall apply to any and all oil or gas well operations conducted from locations within the offshore territorial boundaries and inland bays of the State of California, and where in conflict, the existing regulations shall supersede any and all previous rules, regulations, and requirements pertaining to the operations previously stated.

1740.3. Revision of Regulations.

The Supervisor at appropriate intervals, or as the need arises, may review and issue special regulations or change present regulations, and such special regulations or changes shall prevail against general regulations if in conflict therewith. Public hearings on such special issues or changes will be held if required.

1740.4. Incorporation by Reference.

Any documents or part therein incorporated by reference herein are a part of this regulation as though set out in full.

1740.5. Approval.

Written approval of the Supervisor is required prior to commencing drilling, reworking, injection, plugging, or abandonment operations. Temporary approval to commence such operations, however, may be granted by the Supervisor or his or her representative when such operations are necessary to avert a threat to life, health, property, or natural resources, or when approved operations are in progress and newly discovered well condition are such that immediate corrective or abandonment operations are desirable. Such temporary approval shall be granted only after the operator has provided the Division with all information pertaining to the condition of the well, including but not limited to, geological, mechanical, and the results of tests and surveys. Notwithstanding any such temporary approval, the operator shall immediately file a written notice of intention to carry out a program temporarily approved.

An operator shall act immediately to correct a condition which creates a clear and present danger to life, health, property, or natural resources and shall immediately notify the Division of the condition and the action taken to correct it.

Article 2. Definitions

1741. Definitions.

Unless this context otherwise requires, the following definitions shall apply to these regulations:

(a) **"District"** means oil and gas district as provided for in Section 3105 of Division 3 of the Public Resources Code.

(b) **"Division,"** in reference to the government of this state, means the Division of Oil, Gas, and Geothermal Resources in the Department of Conservation.

(c) **"Drilling fluid"** means the fluid used in the hole during drilling or other proposed operations.

(d) **"Field"** means the same general surface area which is underlaid or reasonably appears to be underlaid by one or more pools.

(e) **"Field rules"** means unique requirements or procedures which may be established by the Supervisor for a producing field.

(f) **"Gas"** means any natural hydrocarbon gas coming from the earth.

(g) (Reserved)

(h) **"Oil"** includes petroleum, and "petroleum" includes oil.

(i) **"Operations"** means any one or all of the activities of an operator covered by Division 3 of the Public Resources Code.

(j) **"Operator"** means any person drilling, maintaining, operating, pumping, or in control of any well.

(k) **"Pool"** means an underground reservoir containing, or appearing at the time of determination to contain, a common accumulation of crude petroleum oil or natural gas or both. Each zone of a general structure which is separated from any other zone in the structure is a separate pool.

(l) **"Rework"** means any operation subsequent to drilling that involves deepening, redrilling, plugging, or permanently altering in any manner the casing of a well or its function.

(m) **"String"** means a continuous length of connected joints of casing, liner, drill pipe or tubing run into the well, including all attached drilling, cementing, testing, producing, safety, and gravel-pack equipment.

(n) **"Supervisor"** means the State Oil and Gas Supervisor.

(o) **"Well"** means any oil or gas well or well for the discovery of oil or gas, or any well on lands producing or reasonably presumed to contain oil or gas or any well drilled for the purpose of injecting fluids or gas for stimulating oil or gas recovery, repressuring or pressure maintenance of oil or gas reservoirs, or disposing of oil field waste fluids or any well drilled within or adjacent to an oil or gas pool for the purpose of obtaining water to be used in production stimulation or repressuring operations.

NOTE: Authority cited: Section 3106, Public Resources Code. Reference: Sections 3000-3014, Public Resources Code.

Article 3. Regulations

1742. Well Identification.

(a) The number or designation, which includes the lease name when used, by which a well shall be known is subject to the approval of the Supervisor and shall not be changed without the written consent of the Supervisor.

(b) Identification of wells. The well designation shall be affixed to the wellhead or guard rail of each completed well. Wells completed from two or more zones shall have the zones individually identified at the wellhead. The Supervisor may approve existing well identification methods if they substantially comply with the intent of this section. Identifying signs shall be maintained in a legible condition.

(c) Platforms, islands, or other fixed structures shall be identified at two diagonal corners of the platform or structure by a sign with letters and figures not less than 12 inches in height with the following information: the platform or structure designation, the name of lease operator, and the lease designation. The Supervisor may approve abbreviations.

(d) Non-fixed platforms or structures shall be identified by two (2) signs with letters and figures not less than 12 inches in height affixed to opposite sides of the derrick to be visible from off the vessel with the following information: the name of the operator and the lease designation.

1743. General Requirements.

(a) It is understood that this Division's approval of operations is contingent upon the continual fulfillment of all marine and pollution control requirements established by the U. S. Coast Guard and the State of California.

(b) All operations are to be conducted in a proper and workmanlike manner in accordance with good oil field practice.

(c) All installations shall comply with applicable provisions of Safety Orders of the State Division of Industrial Safety, including the Petroleum Safety Orders, the General Industry Safety Orders and the Unfired Pressure Vessel Safety Orders.

(d) An approved oil spill contingency plan that includes provisions for rapid deployment of containment and recovery equipment shall be in effect, and a copy of the plan shall be on file with this Division prior to commencing operations.

(e) An approved plan for blowout prevention and control, "kick control plan," including provisions for duties, training, supervision, and schedules for testing equipment and drills, shall be on file with the Division prior to commencing operations.

(f) Tubing, casing, or annulus open to an oil or gas zone shall be sealed off or equipped with a device to shut it in at the surface.

(g) A copy of the operator's proposals on Division forms and subsequent approval of proposed operations by the Division shall be available at the wellsite throughout such operations.

(h) Operators shall give adequate prior notice to the Division's office of the district in which a well is located, of the time for inspections, and tests required by the Division.

(i) Operations shall not deviate from the approved basic program without prior approval of the Division. Additional requirements may be made at that time.

(j) Oil spills or slicks shall be reported to the agencies as specified in the California Oil Spill Disaster Contingency Plan and in the National Oil Hazardous Substances Pollution Contingency Plan.

(k) Blowouts, fires, hazardous gas leaks, disasters, major accidents, or similar incidents on or emanating from an oil or gas drilling, producing, or treating facility shall be reported to the Division immediately.

NOTE: Authority cited: Section 3106, Public Resources Code. Reference: Section 3203, Public Resources Code.

1744. Drilling Regulations.

All exploratory wells and initial development wells on offshore sites shall be drilled or reworked in accordance with these regulations, which shall continue in effect until field rules are established. After field rules have been established, development wells shall be drilled or reworked according to such rules.

(a) Where sufficient geologic and engineering information is available from previous drilling, operators may make application to the Supervisor for the establishment of field rules for each oil or gas pool or zone. The Supervisor shall review field rules at least once a year and notify operators in writing of any change.

(b) Drilling or reworking of wells shall not commence without approval of the Division. Notices of intention and approvals shall be considered canceled if the proposed operations are not commenced within one year of receipt of the notice. Each proposal to drill or rework a well shall include all information required on Division forms and a detailed work program including, when applicable, casing, cementing, drilling fluid, and blowout prevention programs, proposed bottom hole location, anticipated location of the intersection of each proposed zone of completion with the bore hole, anticipated pressures, and anticipated depths (both measured and vertical) of geologic formations, oil zones, gas zones, and freshwater zones. The casing, cementing, drilling fluid, and blowout prevention programs shall comply with either the following requirements or established field rules.

1744.1. Casing Program.

All wells shall be cased and cemented in a manner that will fulfill the requirements of Sections 3106, 3219, 3220, and 3222 of Division 3 of the Public Resources Code. The proposal to drill, redrill, or deepen shall include a casing program designed to provide for firm anchorage and for full protection of all oil, gas, or fresh water zones. All casing strings shall be new pipe or equivalent, capable of withstanding all anticipated collapse and burst pressures to be encountered or used. For the purpose of these regulations, the several strings in order of normal installation are conductor, first surface, second surface, intermediate, protective, and production.

Casing strings shall be run and cemented prior to drilling below the specified setting depth, subject to minor variations necessary to allow the casing to be set in firm compacted or consolidated stratum. All depths refer to true vertical depth (TVD) below the ocean floor, unless otherwise specified. Determination of proper casing setting depths shall be based upon all geological and engineering factors, including but not limited to the presence or absence of hydrocarbons, formation pressures, fracture gradients, lost circulation intervals, and the degree of compaction or consolidation of formations.

1744.2. Description of Casing Strings.

Names of strings used by the Division are not always the same as those used by the federal government for wells drilled on the Outer Continental Shelf. Where there is a difference, the Division name is given first followed by the federal name shown in parentheses.

(a) Conductor casing (drive or structural). This casing may be set by drilling, driving, or jetting to a depth of approximately 100 feet to provide hole stability for initial drilling operations. This casing may be omitted, when approved by the Offshore Unit, if there is geological evidence that hydrocarbons will not be encountered while drilling the hole for the first surface casing and is not needed for hole stability.

(b) First surface casing (conductor). This casing shall be set at a minimum depth of 300 feet or a maximum depth of 500 feet provided that this casing string shall be set before drilling into shallow strata known to contain oil or gas or, if unknown, upon encountering such strata.

(c) Second surface casing (surface). This casing shall be set at a minimum depth of 1,000 feet or a maximum depth of 1,200 feet below the ocean floor, but may be set as deep as 1,500 feet, in the event the surface casing is set at a depth at least 450 feet.

(d) Intermediate casing. This casing shall be set if the proposed total depth of the well is more than 3,500 feet. When surface casing is set at deeper than 1,000 feet, the proposed total depth of the well may be extended two (2) feet for each foot of surface casing below 1,000 feet.

Proposed Total Depth of Well or Proposed Depth of First Full String of Protective Casing (TVD in Feet Below Ocean Floor)			*Setting Depth for Intermediate Casing (TVD in Feet Below Ocean Floor)*	
Maximum			*Minimum*	
3,500	-	*4,500*	*1,500*	*4,500*
4,500	-	*6,000*	*1,750*	*4,500*
6,000	-	*9,000*	*2,250*	*4,500*
9,000	-	*11,000*	*2,750*	*4,500*
11,000	-	*13,000*	*3,250*	*4,500*
13,000	-	*Below*	*3,500*	*4,500*

(e) Protective casing. This casing shall be set when required by well conditions, such as lost circulation or abnormal pressures. When this string does not extend to the surface, the lap shall be cemented and tested by a fluid entry test to determine whether a seal between the protective string and next larger string has been achieved. The test shall be witnessed and approved by a Division inspector and recorded on the driller's log.

(f) Production casing. This casing shall be cemented as noted in Section 1744.3 below and a test of water shut-off made above the zones to be produced or injected into. The test shall be witnessed and approved by a Division inspector before completing the well for production or injection. In injection wells, the Supervisor may approve the demonstration of the shut-off by running of a survey within 30 days after injection commences. The survey must show that injection fluid is confined to the approved injection interval.

When the production string does not extend to the surface, the lap between the production string and next larger casing string shall be cemented and tested as in the case of protective casing. The surface casing shall never be used as production casing unless all lower oil or gas zones are properly plugged.

1744.3. Cementing Casing.

The conductor (if drilled or jetted) and surface casings shall be cemented with sufficient cement to fill the annular space back to the ocean floor. The intermediate casing shall be cemented with sufficient cement to fill the annular space back to the ocean floor or at least 200 feet into the next larger string of pipe. The protective and production casings shall be cemented so that all fresh water zones, oil or gas zones, and abnormal pressure intervals are covered or isolated, and, in addition, a calculated volume sufficient to fill the annular space to at least 500 feet above cementing points, above oil or gas zones, and above abnormal pressure intervals not previously cased. When the cement behind casing is not returned to the ocean floor or through a lap, the amount of solid cement fill behind casing shall be determined by surveys acceptable to the Supervisor. If the annular space is not adequately cemented by the primary operation, the operator shall displace sufficient cement to fill the required annular space. Upon demonstrating shut-off above the zones to be produced or injected into as indicated under (f) above, the operator may continue with the approved operations.

1744.4. Pressure Testing.

Prior to drilling out the plug after cementing, all blank casing strings, except the conductor casing, shall be pressure tested as shown in the table below. Loss in pressure shall not exceed 10 percent during a 30 minute test; corrective measures must be taken until a satisfactory test is obtained.

Casing String	*Minimum Surface Test Pressure*
First surface	1 psi/ft. of depth
Second surface	1,000 psi
Intermediate, protective and production	1,500 psi or 0.2 psi/ft. whichever is greater

After cementing any of the above strings, drilling shall not be commenced until a time lapse of: eight hours for the first surface casing string and 12 hours for all other casing strings, or sufficient time for the bottom 500 feet of annular cement fill to attain a compressive strength of at least 500 psi based on a pretest of the slurry at the temperature and pressure at the cementing depth, using testing procedures as set forth by the American Petroleum Institute in RP 10B, 1972, incorporated here by reference.

All casing pressure tests shall be witnessed and approved by a Division inspector prior to drilling out of the casing or perforating opposite possible oil or gas zones. Inspection of data recorded by a device approved by the Division may be substituted for witnessing.

1744.5. Blowout Prevention and Related Well-Control Equipment.

This equipment shall be installed, tested, used, and maintained in a manner necessary to prevent an uncontrolled flow of fluid from a well. Division personnel shall use the current edition of Division of Oil, Gas, and Geothermal Resources Manual No. M07, "Oil and Gas Well Blowout Prevention in California," as a guide in establishing the blowout prevention equipment requirements specified in the Division's approval of proposed operations.

NOTE: Authority cited: Section 3106, Public Resources Code. Reference: Section 3219, Public Resources Code.

1744.6. Drilling Fluid Program—General.

The characteristics, use, and testing of drilling fluid and the method of conducting related drilling procedures shall be such as are necessary to prevent the uncontrolled flow of fluid from any well. Quantities of drilling fluid materials sufficient to insure well control shall be maintained readily accessible for immediate use at all times.

(a) Drilling fluid control. Before starting out of the hole with drill pipe, the drilling fluid shall be circulated with the drill pipe hung just off bottom until the drilling fluid is properly conditioned. Proper conditioning requires circulation of the drilling fluid to the extent that the total annulus volume is displaced and until gas is removed. When coming out of the hole with drill pipe or tubing, the annulus shall be filled with drilling fluid before the drilling fluid level drops below a calculated depth of 100 feet below the derrick floor. A mechanical device that indicates the amount of drilling fluid required to keep the hole full shall be watched. If there is any indication of "swabbing" or influx of formation fluids, the inside blowout preventer shall be installed on the drill pipe, the drill pipe shall be run to bottom, and the drilling fluid properly conditioned. The drilling fluid shall not be circulated and conditioned except on or near bottom, unless well conditions prevent running the pipe to bottom. The fluid in the hole shall be circulated or reverse circulated prior to pulling drill-stem test tools from the hole.

(b) Drilling fluid testing equipment. Drilling fluid testing equipment for measuring viscosity, water loss, weight, and thixotropic properties shall be maintained on the drillsite at all times. Tests of the drilling fluid consistent with good operating practice shall be performed at the beginning of each eight-hour tour while drilling, with additional tests as conditions warrant. Results of tests shall be recorded on the driller's log. The following or comparable equipment for monitoring the drilling fluid system must be installed with the

indicators at the driller's station and used throughout the period of drilling after setting and cementing the first surface casing.

(1) A recording mud-pit level indicator to determine mud pit volume gains and losses. This indicator shall include a visual and audible warning device.

(2) A mud volume measuring device for accurately determining mud volumes required to maintain fluid level at the surface while pulling the drill pipe from the hole.

(3) A mud return or full hole indicator to show when returns have been obtained, or when they occur unintentionally, and also to determine that returns essentially equal the pump discharge rate.

(c) Inspection of the complete drilling fluid system shall be made by a Division inspector. Approval of the system is required prior to drilling out the shoe of the first surface casing.

1745. Plugging and Abandonment.

Plugging and abandonment operations shall not commence until approval has been obtained from the Supervisor. Proposals to plug or plug and abandon shall be submitted on a Division form for plugging or plugging and abandonment and accompanied by a detailed work program. The proposed plugging and abandonment program shall be deemed to have been approved if the Supervisor does not give the operator a written response to the notice of intention within ten (10) working days. Under circumstances specified in Section 1740.5, the operator may receive conditional approval to commence operations.

The operator shall comply with the following minimum requirements which have general application to all wells. The Supervisor may approve or require specific plugging materials and methods of operation to fulfill or exceed the minimum requirements.

1745.1. Permanent Plugging and Abandonment.

(a) Plugging in uncased hole. In uncased portions of wells, cement plugs shall be placed to extend from total depth or at least 100 feet below each oil or gas zone, whichever is less, to at least 100 feet above the top of each zone, and a cement plug at least 200 feet long shall be placed across an intrazone freshwater-saltwater interface or opposite impervious strata between fresh- and saltwater zones so as to confine the fluids in the strata in which they are found and to prevent them from escaping into other strata.

(b) Isolation of open hole. Where there is open hole immediately below casing, a cement plug shall be placed in the deepest cemented casing string from total depth or at least 100 feet below the casing shoe, whichever is less to at least 100 feet above the casing shoe.

(c) Plugging perforated intervals. A cement plug shall be placed opposite all perforations extending to a minimum of 100 feet above the perforated intervals, liner top, cementing point, or zone, whichever is higher.

(d) Isolating zones behind cemented casing. Inside cemented casing, a cement plug at least 100 feet long shall be placed above each oil or gas zone and above the shoe of the intermediate or second surface casing; a cement plug at least 200 feet long shall also be placed across an intrazone freshwater-saltwater interface or opposite impervious strata between fresh- and saltwater zones.

1745.2. Junk in Hole or Collapsed Casing.

In the event that junk cannot be removed from the hole, and the hole below the junk is not properly plugged, cement plugs shall be placed as follows:

(a) Sufficient cement shall be squeezed through the junk to isolate the lower oil, gas, or fresh water zones and a minimum of 100 feet of cement shall be placed on top of the junk, but no higher than the sea bed.

(b) If the top of the junk is opposite uncemented casing, the casing annulus immediately above the junk shall be cemented with sufficient cement to insure isolation of the lower zones.

1745.3. Plugging of Casing Stubs.

If casing is cut and recovered, other than that pulled for placing the surface plug, a cement plug shall be placed from at least 100 feet below to at least 100 feet above the stub.

1745.4. Plugging of Annular Space.

No annular space that extends to the ocean floor shall be left open to drilled hole below. If this condition exists, a minimum of 200 feet of the annulus immediately above the shoe shall be plugged with cement.

1745.5. Surface Plug Requirement.

A cement plug at least 100 feet long shall be placed in the well with the top between 50 and 150 feet below the ocean floor. All inside casing strings with uncemented annuli shall be pulled from below the surface plug. The casing shall not be shot or cut in a manner that will damage outer casing strings and prevent reentry into the well.

1745.6. Testing of Plugs.

Division tests for the location and hardness of cement plugs shall be verified by placing the total weight of the pipe string on the plug, or where there is sufficient depth, an open-end pipe weight of at least 10,000 pounds.

1745.7. Mud.

Any interval of the hole not plugged with cement shall be filled with mud fluid of sufficient density to exert hydrostatic pressure exceeding the greatest formation pressure encountered while drilling such interval.

1745.8. Clearance of Location.

All casing and anchor piling shall be cut and removed from not more than 5 feet below the ocean floor, and the ocean floor cleared of any obstructions, unless prior approval to the contrary is obtained from the appropriate marine navigation and wildlife agencies and a copy of the approval filed with the Division.

1745.9. Temporary Abandonments.

Any well that is to be temporarily abandoned shall be mudded and cemented as required for permanent plugging and abandonment, but requirements of Sections 1745.1(d), 1745.4, 1745.5, and 1745.8 of this article may be omitted. For ocean-floor and platform sites, a mechanical bridge plug (retrievable or permanent) shall be set in the well between 15 and 200 feet below the ocean floor. For land fill, pier, and island sites, the well shall be securely capped or closed at the surface, until operations are resumed.

1745.10. Witnessing of Operations.

Operations to be witnessed by a Division inspector include tests for location and hardness of plugs placed across oil or gas zones open to the well, across fresh water zones, across casing shoes, cementing through junk, and placing of the surface plug. Geologic or mechanical conditions may require changes or additions to the schedule of inspections.

1746. Well Records.

The operator of any well shall keep, or cause to be kept, an accurate record of each well consisting of but not limited to the following:

(a) A log and history for each well showing chronologically the following applicable data:

(1) Character and depth of formations, water-bearing strata, oil and gas-bearing zones, and lost circulation zones encountered.

(2) Casing size, kind, top, bottom, perforations, and attached equipment used.
(3) Tubing size, and depth, type and location of packers, safety devices, and other tubing equipment used.
(4) Hole size.
(5) Cementing and plugging operations including time, depth, slurry volume and composition, fluid displacement, fill, pressures used, and down-hole equipment used.
(6) Drillstem and formation tests including time, depth, pressures, and recovery (volume and description).
(7) BOPE installation, inspections, pressure tests, and drills.
(8) Shut-off, pressure, and lap tests of casing.
(9) Depth and type of all electrical, physical or chemical logs, tests, or surveys run.
(10) Wellhead specifications and method of production.
(b) Core record showing the depth, character, and fluid content of all cores, including sidewall cores, so far as determined.
(c) Filing records.
(d) Records at wellsite.

1746.1. Filing Records.
Well records shall be filed in accordance with the provisions of Sections 3215 or 3216, Article 4, Public Resources Code.

NOTE: Authority cited: Sections 3000-3013 and 3016, Public Resources Code. Reference: Sections 3203-3220 and 3227-3237, Division 3, Chapter 1, Article 4, Public Resources Code.

1746.2. Records of Wellsite.
During the performance of proposed operations, a copy of a well's tour reports shall be maintained at the wellsite. All pertinent well records shall be made available to the Division inspector upon request.

NOTE: Authority cited: Sections 3000-3013 and 3016, Public Resources Code. Reference: Sections 3203-3220 and 3227-3237, Division 3, Chapter 1, Article 4, Public Resources Code.

1747. Safety and Pollution Control.
Operators shall equip wells and associated facilities with necessary safety devices and establish procedures as follows:
(a) Subsurface safety device. All wells capable of flowing oil or gas to the ocean floor shall be equipped with a surface controlled subsurface tubing safety valve installed at a depth of 100 feet or more below the ocean floor. Such device shall be installed in all oil and gas wells, including artificial lift wells, unless proof is provided to the Supervisor that such wells are incapable of any natural flow to the ocean floor. For shut-in wells capable of flowing oil or gas, a tubing plug may be installed, in lieu of a subsurface safety device, and such plug shall also be installed when required by the Supervisor.
(b) Subsurface safety devices shall be adjusted, installed, and maintained to insure reliable operation. When a subsurface safety device is removed from a well for repair or replacement, a standby subsurface safety device or tubing plug shall be available at the well location, and shall be immediately installed within the limits of practicability, consideration being given to time, equipment, and personnel safety. All wells in which subsurface safety device or tubing plug is installed shall have the tubing-casing annulus sealed below the valve or plug setting depth.
(c) Each subsurface safety device and tubing plug installed in a well shall be tested at intervals not exceeding one month and a report filed with the Division within five (5) days. Failures shall be reported to the Division

immediately. The tests shall be performed in the presence of a Division inspector following installation or reinstallation and at 90-day intervals thereafter. The Supervisor may adjust the testing sequence based on equipment performance.

(d) The control system for the surface-controlled subsurface safety devices shall be an integral part of the shut-in system for the production facility.

(e) The operator shall maintain records, available at the structure or facility to any representative of the Division, showing the present status and history of each subsurface safety device or tubing plug, including dates and details of inspection, testing, repairing, adjustment, and reinstallation or replacement.

NOTE: Authority cited: Section 3106, Public Resources Code. Reference: Sections 3106 and 3219, Public Resources Code.

1747.1. Safety and Pollution Control Equipment Requirements.

The following requirements shall apply to all offshore production facilities. Sections 1747.3, 1747.4, and 1747.9 shall also apply to mobile drilling structures. Sections 1747.2 and 1747.10 shall also apply to ocean floor completions or wells with submerged wellheads.

(a) The following devices shall be installed and maintained in an operating condition on all pressurized vessels and water separation facilities when such vessels and separation facilities are in service. The operator shall maintain records on the structure or facility showing the present status and history of each such device including dates and details of inspection, testing, repairing, adjustment, and reinstallation or replacement.

(1) All separators shall be equipped with high-low pressure shut-in sensors, low level shut-in controls, and a relief valve. High liquid level control devices shall be installed when the vessel can discharge to a gas vent line.

(2) All pressure surge tanks shall be equipped with a high and low pressure shut-in sensor, a high level shut-in control, gas vent line, and relief valve.

(3) Atmospheric surge tanks shall be equipped with a high level shut-in sensor.

(4) All other hydrocarbon handling pressure vessels shall be equipped with high-low pressure shut-in sensors, high-low level shut-in controls, and relief valves, unless they are determined by the Supervisor to be otherwise protected. All low pressure systems connected to high pressure systems shall be equipped with relief valves.

(5) Pilot-operated pressure relief valves shall be equipped to permit testing with an external pressure source. Spring-loaded pressure relief valves shall either be bench-tested or equipped to permit testing with an external pressure source. A relief valve shall be set no higher than the designed working pressure of the vessel. On all vessels with a rated or designed working pressure of more than 400 psi, the high pressure shut-in sensor shall be set no higher than 5 percent below the rated or designed working pressure and the low pressure shut-in sensor shall be set no lower than 10 percent below the lowest pressure in the operating pressure range. On lower pressure vessels the above percentages shall be used as guidelines for sensor settings considering pressure and operating conditions involved, except that sensor setting shall not be within 5 psi of the rated or designed working pressure or the lowest pressure in the operating pressure range.

(6) All pressure-operated sensors shall be equipped to permit testing with an external pressure source.

(7) All gas vent lines shall be equipped with a scrubber or similar separation equipment.

1747.2. Safety Devices.

The following devices shall be installed and maintained in an operating condition at all times when the affected well (or wells) is producing. The operator shall maintain records on the structure or facility showing the present status and history of each such device, including dates and details of inspection, testing, repairing, adjustment, and reinstallation or replacement.

(a) All wells shall have a fail shut-in capability. For pumping wells incapable of natural flow to the ocean floor, an approved power source shut-off system may be used. On all flowing or gas lift wells the wellhead assemblies shall be equipped with an automatic failclose valve.

(b) All flowlines from wellheads shall be equipped with high-low pressure sensors located close to the wellhead. The pressure sensors shall be set to shut-in the well in the event of abnormal pressures in the flowline.

(c) All headers shall be equipped with check valves on the individual flowlines. The flowline and valves from each well located upstream of, and including, the header valves shall withstand the shut-in pressure of that well, unless protected by a relief valve with connections to bypass the header. If there is an inlet valve to a separator, the valve, flowline, and all equipment upstream of the valve shall also withstand shut-in wellhead pressure, unless protected by a relief valve with connections to bypass the header.

(d) All pneumatic, hydraulic, and other shut-in control lines shall be equipped with fusible material at strategic points.

(e) Remote shut-in controls shall be located on the helicopter deck and all exit stairway landings leading to the helicopter deck and to all boat landings. These controls shall be quick-operating devices.

(f) All pressure sensors shall be operated and tested for proper pressure settings monthly. Results of all tests shall be recorded and maintained on the structure or facility.

(g) All automatic wellhead safety valves shall be tested for holding pressure monthly. Results of all tests shall be recorded and maintained on the structure or facility.

(h) Check valves shall be tested for holding pressure monthly for at least four months. At such time as the monthly results are satisfactory, a quarterly test shall be required. Results of all tests shall be recorded and maintained on the structure or facility.

(i) A standard procedure for testing of safety equipment shall be filed with the Division and posted in a prominent place on the structure or facility.

1747.3. Containment.

Curbs, gutters, and drains shall be constructed and maintained in good condition in all deck areas in a manner necessary to collect all contaminants, unless drip pans or equivalent are placed under equipment and piped to a sump which will automatically maintain the oil at a level sufficient to prevent discharge of oil into the ocean waters. Alternate methods to obtain the same results may be approved by the Supervisor. These systems shall not permit spilled oil to flow into the wellhead area of a platform or pier.

1747.4. Emergency Power.

An auxiliary electrical power supply shall be installed to provide emergency power sufficient to operate all electrical equipment required to maintain safety of operation in the event the primary electrical power supply fails. The auxiliary system shall be tested weekly and the results recorded.

1747.5. Fire Protection.

A fire fighting system shall be installed and maintained in an operating condition in accordance with volumes 6 and 7 of the National Fire Codes, 1973, as appropriate, incorporated here by reference. A diagram of the fire fighting system, showing the location of all equipment, shall be filed with the Division and posted in a prominent place on the structure. The system shall be tested monthly by the operator and a report filed with the Division. Failure of any part of the system shall be reported to the Division immediately.

NOTE: Authority cited: Section 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1747.6. Detection System.

An automatic gas detector and alarm system shall be installed and maintained in an operating condition in accordance with the following:

(a) Gas detection systems shall be installed in all enclosed areas containing gas handling facilities or equipment, and in other areas classified as hazardous and defined in API RP 500 B, 1973, and the National Electric Code, 1971, both incorporated here by reference.

(b) All gas detection systems shall be capable of continuous monitoring. The sensitivity shall be maintained at a level that will detect the presence of combustible gas within the areas in which the detection devices are located.

(c) The central control shall be capable of giving an alarm at not higher than 60 percent of the lower explosive limit.

(d) The central control shall automatically activate shut-in sequences and emergency equipment at a point not higher than 90 percent of the lower explosive limit.

1747.7. Installation Application.

An application for the installation and maintenance of any gas detection system shall be filed with the Division for approval and it shall include the following:

(a) Type, location, and number of detection or sampling heads.

(b) Cycling, non-cycling, and frequency information.

(c) Type and kind of alarm and emergency equipment to be activated.

(d) Method used for detection of combustible gas.

(e) Method and frequency of calibration.

(f) A diagram of the gas detection system.

(g) Other pertinent information.

NOTE: Authority cited: Section 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1747.8. Diagram.

A diagram of the gas detection system showing the location of all gas detection points shall be filed with the Division and posted in a prominent place at the structure.

1747.9. Electrical Equipment Installation.

All electrical equipment and systems shall be installed in accordance with the California Building Standards Electrical Code, 1971, the National Electric Code, 1971, and API RP 500 B, 1973, incorporated here by reference. On mobile drilling structures, certificated by the U. S. Coast Guard, this equipment shall be installed, protected, and maintained in accordance with the applicable provisions of CG-259, Electrical Engineering Regulations, 1971, incorporated here by reference.

1747.10. Testing and Inspection.

The safety and pollution control systems shall be tested and inspected every month and a report filed with the Division. Failures shall be reported to the Division immediately. A Division inspector shall witness the tests and inspect the systems at the time production is commenced and at 90-day intervals thereafter. The Supervisor may adjust the testing and inspection sequence based on equipment performance.

(a) After review by the Supervisor and with his or her written approval, existing production facilities that

substantially comply with the intent of Sections 1747 through 1747.9 will be exempt from these regulations. However, any changes or additions to existing platforms will comply with these regulations.

(b) The Division shall be notified of all major production facility shutdowns anticipated to be in excess of 24-hour duration, whether intentional or otherwise. When inspected by a Division inspector, a complete shutdown may be substituted for the next scheduled test of some or all of the safety systems.

NOTE: Authority cited: Section 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1748. Waste Disposal and Injection Projects.

Disposal and injection projects are subject to the provisions of Section 1748.1 through 1748.3.

1748.1. Waste Disposal.

All discharges into the ocean shall conform to the requirements of the appropriate Regional Water Quality Control Board.

1748.2. Injection Projects.

All subsurface injection projects require prior approval of this Division. An operator requesting approval to inject fluid into any subsurface strata must provide certain technical data regarding the project. This information must be submitted sufficiently in advance to enable the Division to evaluate fully the possible effects of the project upon any oil, gas, or fresh water reservoirs that may be present. The completeness and accuracy of the following data filed will have a bearing on this Division's decision to approve or disapprove the project.

(a) One or more geologic cross sections through the injection well at a scale that will clearly show the following:

(1) The injection well, or wells.

(2) A sufficient number of producing wells to show the geologic structure and stratigraphic relationship.

(3) Casing detail of all wells shown.

(4) The zone or zones to be injected into, other geologic units present, and the base of any freshwater aquifer.

(5) Location of any existing oil-water and oil-gas interfaces in or above the injection zone.

(6) The intervals of all geologic formations present.

(7) Fault block designations.

(b) A representative electric log from the surface to a depth below the producing zones (if not already shown on the cross section), identifying all geologic units, formations, oil or gas zones, and fresh water aquifers.

(c) Structural contour maps of markers at or near the top of each proposed injection zone showing the following:

(1) The location of the proposed injection well or wells, together with directional plots, bottom-hole locations, well status symbols, and zones open to production for all wells bottomed within the affected area.

(2) Reservoir characteristics such as pinchouts, permeability barriers and faults.

(3) Mineral lease boundary lines and fault block designations.

(4) Lines of cross sections.

(5) Lines showing original oil-water and oil-gas contacts.

(d) Letter containing engineering and geologic details of the project, in duplicate, including:

(1) Primary purpose.

(2) Reservoir characteristics of the injection zone; i.e., porosity, permeability, thickness (net and gross), present temperature and pressure, and present oil, gas, and water saturation.

(3) Casing diagrams, including cement plugs and cement fill behind casing, of all idle, plugged and abandoned, or deeper-zone producing wells within the area affected by the project.
(4) Source and analysis of the injection water and analysis of the water in the injection zone.
(5)Treatment of the water to be injected.
(6) Method of injection, i.e., through casing, tubing, tubing with packer, between strings.
(7) Maximum daily rate of injection, by well or wells.
(8) Maximum surface injection pressure anticipated (pump pressure).
(9) Precautions taken, or to be taken, to insure that the injected fluid is confined to the injection zone and to the area controlled by the operator.
(10) Protective methods used, if any, on injection lines and well(s), i.e., cathodic, etc.
(e) Copies of letters of notification sent to neighboring operators.
(f) Other data as required for large, unusual, or hazardous projects, for unusual or complex structures, for sensitive locations, etc. Examples: Isopach map, IsoGOR map, water-oil ratio map, IsoBAR maps, equipment diagrams, and safety precautions.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Section 3301, Public Resources Code.

1748.3. Injection Requirements.
(a) Appropriate forms furnished by the Division for proposal to drill or rework shall be completed and submitted to the Division for approval whenever a new well is to be drilled for use as an injection well, or whenever an existing well is to be converted to an injection well, even if no work is required.
(b) An injection report on a Division form shall be filed with this Division in duplicate on or before the tenth day of each month, for the preceding month.
(c) A chemical analysis of the fluid (or gas) to be injected shall be made and filed with this Division at least every two years, whenever the source of injection fluid is changed, or as requested.
(d) An accurate, operating pressure gauge or chart shall be maintained at the wellhead at all times.
(e) Fluid injection profile surveys shall be required for all injection wells within one month after injection has commenced, at least once every year thereafter for all high-pressure or high-volume injection wells, after any significant anomalous rate or pressure change, or as requested by the Division, to confirm that the injection fluid is confined to the proper zone.
(f) Sufficient data shall be maintained to show performance of the project and to establish that no damage is occurring because of excessive injection pressure. These data shall be available for periodic inspection by personnel from this Division.
(g) Injection shall cease upon written notice from the Division if any evidence of damage is observed by the Division or in its opinion is occurring.
(h) Additional requirements or modification of the above requirements may be necessary to fit individual circumstances.

Subchapter 2. Environmental Protection

Article 1. General

1750. Purpose.

It is the purpose of this subchapter to set forth the rules and regulations governing the environmental protection program of the Division of Oil, Gas, and Geothermal Resources as provided for in Section 3106 of Division 3 of the Public Resources Code.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3000 through 3237, Public Resources Code.

Article 2. Definitions

1760. Definitions.

The following definitions are applicable to this subchapter:

(a) **"Alteration"** of a production facility means any action that changes by more than ten percent the total processing capacity, or storage volume of the production facilities within a given secondary containment. "Alteration" does not include activities such as maintenance, replacement, or minor modification of production facilities, or installation of temporary production facilities.

(b) **"Catch basin"** means a dry sump that is constructed to protect against unplanned overflow conditions.

(c) **"Decommission"** means to safely dismantle and remove a production facility and to restore the site where it was located in accordance with Sections 1775 and 1776(f).

(d) **"Designated waterways"** means any named perennial or ephemeral waterways or any perennial waterways shown as solid blue lines on United States Geological Survey topographic maps and any ephemeral waterways that the Supervisor determines to have a direct impact on perennial waterways.

(e) **"Environmentally sensitive"** means any of the following:

(1) A production facility located within 300 feet of any public recreational area, or a building intended for human occupancy that is not necessary to the operation of the production operation, such as residences, schools, hospitals, and businesses.

(2) A production facility located within 200 feet of any officially recognized wildlife preserve or environmentally sensitive habitat that is designated on a United States Geological Survey topographic map, designated waterways, or other surface waters such as lakes, reservoirs, rivers, canals, creeks, or other water bodies that contain water throughout the year.

(3) A production facility located within the coastal zone as defined in Section 30103(b) of the Public Resources Code.

(4) Any production facility which the Supervisor determines may be a significant potential threat to life, health, property, or natural resources in the event of a leak, or that has a history of chronic leaks.

(f) **"Field"** means the general surface area that is underlain or reasonably appears to be underlain by an underground accumulation of crude oil or natural gas, or both. The surface area is delineated by the administrative boundaries shown on maps maintained by the Supervisor.

(g) **"Flowline"** or **"injection line"** mean any pipeline that connects a well with a gathering line or header.

(h) **"Gathering line"** means a pipeline (independent of size) that transports liquid hydrocarbons between any of the following: multiple wells, a testing facility, a treating and production facility, a storage facility, or a custody transfer facility.

(i) **"Header"** means a chamber from which fluid is distributed to or from smaller pipelines.

(j) **"Pipeline"** means a tube, usually cylindrical, with a cross sectional area greater than 0.8 square inches (1 inch nominal diameter), through which crude oil, liquid hydrocarbons, combustible gases, and/or produced water flows from one point to another within the administrative boundaries of an oil or gas field. Pipelines under the State Fire Marshal jurisdiction, as specified by the Elder Pipeline Safety Act of 1981 (commencing with Section 51010 of the Government Code, and the regulations promulgated thereunder) are exempt from this definition.

(k) **"Production facility"** means any equipment attendant to oil and gas production or injection operations including, but not limited to, tanks, flowlines, headers, gathering lines, wellheads, heater treaters, pumps, valves, compressors, injection equipment, production safety systems, separators, manifolds, and pipelines that are not under the jurisdiction of the State Fire Marshal pursuant to Section 51010 of the Government Code, excluding fire suppressant equipment.

(l) **"Out-of-Service"** means any production facility that has become incapable of containing fluid safely or cannot be shown to operate as designed.

(m) **"In-Service"** means any production facility that is capable of containing fluid safely and can be shown to operate as designed.

(n) **"Secondary containment"** means an engineered impoundment, such as a catch basin, which can include natural topographic features, that is designed to capture fluid released from a production facility.

(o) **"Sump"** means an open pit or excavation serving as a receptacle for collecting and/or storing fluids such as mud, hydrocarbons, or waste waters attendant to oil and gas field drilling or producing operations.

(1) **"Drilling Sump"** means a sump used in conjunction with well drilling operations.

(2) **"Evaporation sump"** means a sump containing fresh or saline water which can properly be used to store such waters for evaporation.

(3) **"Operations sump"** means a sump used in conjunction with an abandonment or rework operation.

(p) **"Urban area"** means a cohesive area of at least twenty-five business establishments, residences, or combination thereof, the perimeter of which is 300 feet beyond the outer limits of the outermost structures.

(q) **"Urban pipeline"** means that portion of any pipeline within an urban area as defined in this section.

(r) **"Waste water"** means produced water that after being separated from the produced oil may be of such quality that discharge requirements need to be set by a California Regional Water Quality Control Board.

NOTE: Authority cited: Sections 3013, 3270 and 3782, Public Resources Code. Reference: Sections 3106, 3010, 3270 and 3782, Public Resource Code.

Article 3. Requirements

1770. Oilfield Sumps.

(a) Location. Sumps for the collection of waste water or oil shall not be permitted in natural drainage channels. Contingency catch basins may be permitted, but they shall be evacuated and cleaned after any spill. Unlined evaporation sumps, if they contain harmful waters, shall not be located where they may be in communication with freshwater-bearing aquifers.

(b) Construction. Sumps shall be designed, constructed, and maintained so as to not be a hazard to people, livestock, or wildlife including birdlife.

(1) To protect people, sumps in urban areas shall be enclosed in accordance with Section 1778 (a) or (e) and (c).

(2) In non-urban areas, to protect people and livestock and to deter wildlife, an enclosure shall be constructed around sumps in accordance with Section 1778 (b) or (e).

(3) Any sump, except an operations or drilling sump, which contains oil or a mixture of oil and water shall be covered with screening to restrain entry of wildlife in accordance with Section 1778(d).

(4) A sump need not be individually fenced if the property or the production facilities of which the sump is a part is enclosed by proper perimeter fencing.

(c) Drilling Sumps. All free fluids shall be removed from drilling sumps within 30 days after the date the drill rig is disconnected from the well.

(d) Operations Sumps. All free fluids shall be removed from operations sumps within 14 days after the rig removal or from completion of operations, whichever occurs first.

NOTE: Authority cited: Sections 3013, 3106, 3270 and 3782, Public Resources Code. Reference: Sections 3106, 3270 and 3783, Public Resources Code.

1771. Channels.

Open unlined channels and ditches shall not be used to transport waste water which is harmful to underlying freshwater deposits. Oil or water containing oil shall not be transported in open unlined channels or ditches unless provisions are made so that they are not a hazard as determined by the Supervisor.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Section 3106, Public Resources Code.

1773. Production Facilities Containment, Maintenance, and Testing.

Production facilities shall adhere to the containment, construction, maintenance, inspection, testing, de-commissioning, reactivation, and reporting requirements outlined in Sections 1773.1 through 1773.5.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106 and 3270, Public Resources Code.

1773.1. Production Facility Secondary Containment.

(a) All production facilities storing and/or processing fluids, except valves, headers, manifolds, pumps, compressors, wellheads, pipelines, flowlines and gathering lines shall have secondary containment.

(b) Secondary containment shall be capable of containing the equivalent volume of liquids from the single piece of equipment with the largest gross capacity within the secondary containment.

(c) Secondary containment shall be capable of confining liquid for a minimum of 72 hours.

(d) When not in use for rain water management, rain water valves on a secondary containment shall be closed and secured to prevent unauthorized use.

(e) All damage to secondary containment shall be repaired immediately.

(f) The requirements of this section are not applicable until six months after the effective date of this regulation.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106 and 3270, Public Resources Code.

1773.2. Tank Construction and Leak Detection.

(a) All new tanks shall be constructed and designed to provide enough space between tanks to allow safe access for maintenance, inspection, testing, and repair.

(b) Foundations for new tanks shall be designed to support the tank, maintain the tank level, and drain fluid away from the tank, including fluids that may leak from the tank. The sub-base of the foundation shall

include an impermeable barrier designed to prevent downward fluid migration and to allow leaks to drain away from the tank and be detected by visual inspection or through the use of a leak detection sensor, as each particular instance may require. The foundation base shall be made of material that provides for support and drainage away from the tank.

(c) When a tank bottom is replaced, a leak detection system shall be installed and properly maintained that will either:

(1) Channel any leak beneath the tank to a location where it can be readily observed from the outside perimeter of the tank, or

(2) Accurately detect any tank bottom leak through the use of sensors.

(d) The Supervisor or district deputy may require a tank bottom leak detection system for any tank with a foundation that does not have an impermeable barrier after considering such factors as the age of the tank, fluid service, and proximity to groundwater.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106, 3224 and 3270, Public Resources Code.

1773.3. Tank Maintenance and Inspections.

(a) All tanks shall be properly identified with the operator's tank identification number, tank type (production, stock, water, etc.), and with appropriate materials hazard placards or labels.

(b) Operators shall inspect in-service tanks at least once a month for the following:

(1) Leakage at the base, seams, associated piping, tank shell plugs, or any other fitting that could leak.

(2) The presence of corrosion or shell distortions.

(3) The general condition of the foundation, including any signs of settling or erosion that may undermine the foundation.

(4) The condition of paint coatings, insulation systems and tank grounding system components, if present.

(c) Leaking tanks shall be reported to the appropriate Division district office within 48 hours and shall be taken out of service and designated as an Out-of-Service tank.

(d) Wooden plugs or screw-in plugs shall not be used for permanent repair.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106, 3224 and 3270, Public Resources Code.

1773.4. Tank Testing and Minimum Wall Thickness Requirements.

(a) Tank wall thickness testing shall be conducted on in-service tanks at intervals not to exceed the following:

(1) If the corrosion rate of the tank is not known, at least once every five years.

(2) If the corrosion rate of the tank is known, an interval determined from corrosion rate calculations approved by the Supervisor, but not to exceed once every 15 years.

(3) Tank wall thickness testing shall be conducted within two years of the effective date of this regulation for tanks that have not had testing within the required interval.

(b) Insulated tanks shall have insulation removed to the extent necessary to determine the thickness of the tank walls or roof.

(c) The minimum thickness for a tank shell shall be 0.06 inch.

(d) In-service tanks shall be internally inspected and tested to determine bottom plate thickness no less than once every 20 years. In-service tanks that have not been internally inspected within the 20 years pre-

ceding the effective date of this section must be internally inspected within two years after the effective date of this section. A tank is exempt from this requirement if**:**

(1) The tank is not an environmentally sensitive tank, it is not in an urban area, and it is not located above subsurface freshwater; or

(2) The tank has a foundation that is designed and constructed in accordance with the requirements of Section 1773.2(b); or

(3) The tank has a properly installed, operating and maintained leak detection system as specified in Section 1773.2(c).

(e) The minimum bottom plate thickness shall meet the following criteria:

(1) 0.10 inch for tank bottom/foundation design with no means of detection and containment of a bottom leak;

(2) 0.05 inch for tank bottom/foundation design with adequate leak detection and containment of a bottom leak;

(3) 0.05 inch in conjunction with a reinforced tank bottom lining, greater than 0.05 inch thick.

(f) The Supervisor or district deputy may require that a tank that has had a leak resulting in the release of a reportable quantity be tested to verify integrity prior to being put back into service.

(g) A tank that is not repaired within 60 days of failing an inspection or test required by this section shall be taken out of service and designated as an Out-of-Service tank. The Supervisor or district deputy may grant one extension of up to 120 days if the operator shows to the satisfaction of the Supervisor or district deputy that there is no significant threat as a result of the extension.

(h) Tanks that are not susceptible to corrosion, such as non-metal tanks and tanks with liners, are not subject to the requirement of this section but shall be inspected and tested according to the manufacturer's specifications or as requested by the Supervisor or district deputy.

(i) An operator may petition the Supervisor to allow a minimum tank wall or tanks bottom thicknesses that is lower than what is required in subdivisions (c) and (e) of this section. The Supervisor may grant such a petition if he or she is satisfied that based on the design and use of the tank a lower minimum thickness will ensure that the tank will operate as designed and will be capable of safely containing fluid.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106 and 3270, Public Resources Code.

1773.5. Out-of-Service Production Facility Requirements.

(a) Within six months after the determination that a production facility is Out-of-Service, the following shall be required:

(1) Out-of-Service production facilities shall have fluids, sludge, hydrocarbons, and solids removed and shall be disconnected from any pipelines and other in-service equipment.

(2) Out-of-Service production facilities shall be properly degassed in accordance with local air district requirements.

(3) Clean-out doors or hatches on Out-of-Service tanks shall be removed and a heavy gauge steel mesh grating (less than 1" spacing) shall be secured over the opening to allow for visual inspection and prevent unauthorized access.

(4) Out-of-Service tanks and vessels shall be labeled with Out-of-Service or OOS. "Out-of-Service" or "OOS" shall be painted in bold letters at least one foot high, if possible, on the side of the tank or vessel at least five feet from the ground surface, or as high as possible, along with the date it was taken out of service.

(5) Out-of-Service production facilities shall have valves and fittings removed or secured to prevent unauthorized use.

(6) Pipelines associated with Out-of-Service tanks and pressure vessels shall be removed or flushed, filled with an inert fluid, and blinded.

(b) Out-of-Service production facilities shall not be reactivated unless all needed repairs have been completed and the production facility is in compliance with all applicable testing and inspection requirements.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106 and 3270, Public Resources Code.

1774. Pipeline Construction and Maintenance.

Newly installed pipelines shall be designed, constructed, and all pipelines shall be tested, operated, and maintained in accordance with good oil field practice and applicable standards, as set forth in either the American Petroleum Institute (API) (API Rec. Prac. 1110, 3rd Ed., Dec**.** 1991, and API Spec. effective 1990), American Society for Testing and Materials (ASTM) (ASTM Designation Stand. Spec., 1991), or Code of Federal Regulations 49, Part 192, or other methods approved by the Supervisor. The Supervisor may require design or construction modifications, and/or additional testing and maintenance if he or she determines that good oil field practices and applicable standards have not been used.

Good oilfield practice includes, but is not limited to:

(a) Utilization of preventative methods such as cathodic protection and corrosion inhibitors, as appropriate, to minimize external and internal corrosion.

(b) Utilization of pipeline coating or external wrapping for new or replaced buried or partially buried pipelines to minimize external corrosion. The coating or external wrapping should have a high electrical resistance, be an effective moisture barrier, have good adhesion to the pipe, and be able to resist damage during handling.

(c) Employment, where practical, of equipment such as high and low-pressure or level alarms, automatic notification devices, and safety shut-down devices to minimize spill volume in the event of a leak.

(d) If feasible, locating above ground, preferably on supports or racks, any new pipelines or parts of a pipeline system that are being relocated or replaced.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106, 3224, and 3270, Public Resources Code.

1774.1. Pipeline Inspection and Testing.

(a) Operators shall visually inspect all aboveground pipelines for leaks and corrosion at least once a year.

(b) The Supervisor may order such tests or inspections deemed necessary to establish the reliability of any pipeline system. Repair, replacement, or cathodic protection may be required.

(c) Any pipeline that has had a leak resulting in the release of a reportable quantity shall be pressure tested to verify integrity prior to being placed back into service.

(d) Pipe clamps, wooden plugs or screw-in plugs shall not be used for permanent repair of pipeline leaks.

(e) A mechanical integrity test shall be performed on all active environmentally sensitive pipelines that are gathering lines, and all urban pipelines over 4” in diameter, every two years. Pipelines less than 10 years old are exempt from the two year testing requirement. These tests shall be performed to ensure the pipeline integrity by using at least one of the following methods:

(1) Nondestructive testing using ultrasonic or other techniques approved by the Supervisor, to determine wall thickness.

(2) Hydrostatic testing using the guidelines recommended in Publication API RP 1110 (3d Ed., Dec. 1991), Testing of Liquid Petroleum Pipelines, or the method approved by the State Fire Marshal, Pipeline Safety and Enforcement Division.

(3) Internal inspection devices such as a smart pig, as approved by the Supervisor.

(4) Or any other method of ensuring the integrity of a pipeline that is approved by the Supervisor.

Copies of test results shall be maintained in a local office of the operator for five years and made available to the Division, upon request. The operator shall repair and retest or remove from service any pipeline that fails the mechanical integrity test. The Division shall be promptly notified in writing by the operator of any pipeline taken out of service due to a test failure.

(f) A county board of Supervisors, a city council, or another state agency may petition the Supervisor to include other pipelines within their jurisdiction as environmentally sensitive. The request must be in writing and based on findings of a competent, professional evaluation that shows there is a probability of significant public danger or environmental damage if a leak were to occur.

(1) Within 30 days of receipt of a petition, the Supervisor shall notify any affected operator.

(2) Within 60 days of notification to the operators, the Supervisor shall schedule a hearing with the petitioner and operators to allow all parties to be heard.

(3) Within 30 days after the conclusion of the hearing, the Supervisor shall make a determination as to whether the areas or pipelines should be considered environmentally sensitive.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106 and 3270, Public Resources Code.

1774.2. Pipeline Management Plans.

(a) Operators shall prepare a pipeline management plan for all pipelines within two years of the effective date of this regulation. The plan shall be provided to the Supervisor upon request. The plan shall be updated within 90 days whenever pipelines are acquired, installed, altered, or at the request of the Supervisor. Pipelines that have been abandoned to the standards specified in Section 1776(f) are exempt from this requirement.

(b) The pipeline management plan shall include the following:

(1) A listing of information on each pipeline including, but not limited to: pipeline type, grade, actual or estimated installation date of pipeline, design and operating pressures, and any available leak, repair, inspection and testing history.

(2) A description of the testing method and schedule for all pipelines.

(c) The Supervisor may establish additional requirements or modifications to a pipeline management plan, based on individual circumstances, to ensure life, health, property, and natural resources are protected adequately.

(d) A plan prepared pursuant to California Code of Regulations Title 8, Section 6533 may fulfill the requirements of this section if the plan is determined to be adequate by the appropriate Division district deputy.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106 and 3270, Public Resources Code.

1775. Oilfield Wastes and Refuse.

(a) Oilfield wastes, including but not limited to oil, water, chemicals, mud, and cement, shall be disposed of in such a manner as not to cause damage to life, health, property, freshwater aquifers or surface waters, or natural resources, or be a menace to public safety. Disposal sites for oilfield wastes shall also conform to State Water Resources Control Board and appropriate California Regional Water Quality Control Board regulations.

(b) Dumping harmful chemicals where subsequent meteoric waters might wash significant quantities into freshwaters shall be prohibited. Drilling mud shall not be permanently disposed of into open pits. Cement slurry or dry cement shall not be disposed of on the surface.

(c) Unused equipment and scrap attendant to oilfield operations shall be removed from a production or injection operations area and/or stored in such a manner as to not cause damage to life, health, or property, health, or become a public nuisance or a menace to public safety. Trash and other waste materials attendant to oilfield operations shall be removed and disposed of properly.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Section 3106, Public Resources Code.

1776. Well Site and Lease Restoration.

(a) In conjunction with well plugging and abandonment operations, any auxiliary holes, such as rat holes, shall be filled with earth and compacted properly; all construction materials, cellars, production pads, and piers shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling; well locations shall be graded and cleared of equipment, trash, or other waste materials, and returned to as near a natural state as practicable. Well site restoration must be completed within 60 days following plugging and abandonment of the well.

(b) Sumps shall be closed in accordance with Regional Water Quality Control Board and Department of Toxic Substances Control requirements.

(c) Unstable slope conditions created during site preparation shall be mitigated in such a manner as to prevent slope collapse.

(d) Access roads to well locations generally will not be covered by these regulations; however, any condition that creates a hazard to public safety or property or causes interference with natural drainage will not be acceptable.

(e) Prior to the plugging and abandonment of the last well or group of wells on a lease, the operator shall submit a plan and schedule for completing lease restoration. The lease-restoration plan shall also include the locations of any existing or previously removed, where known, sumps, tanks, pipelines, and facility settings. Lease restoration must begin within three (3) months and be completed within one year after the plugging and abandonment of the last well(s) on the lease. However, the Supervisor may require or approve a different deadline for lease restoration.

(f) Lease restoration shall include the removal of all tanks, above-ground pipelines, debris, and other facilities and equipment. Remaining buried pipelines shall be purged of oil and filled with an inert fluid. Toxic or hazardous materials shall be removed and disposed of in accordance with Department of Toxic Substances Control requirements.

(g) Upon written request of the operator or property owner, exceptions to this section may be made provided the condition does not create a public nuisance or a hazard to public safety. Exceptions may also be granted by the Supervisor when these requirements conflict with local or federal regulations. If a written request for an exception is received from the operator, consent to the exception from the property owner may be required before it is approved by the Supervisor.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Sections 3106 and 3208, Public Resources Code.

1777. Maintenance and Monitoring of Production Facilities, Safety Systems, and Equipment.

(a) Operators shall maintain production facilities in good condition and in a manner to prevent leakage or corrosion and to safeguard life, health, property, and natural resources.

(b) Operators shall establish and comply with a written preventative maintenance program plan for prevention of corrosion and leakage and shall maintain documentation of steps taken to follow the plan. Such a preventative maintenance plan shall include, but not be limited to, the following factors:

(1) The level of usage and wear to which the production facilities are exposed.

(2) The age of the production facilities.

(3) Climate conditions where the production facilities are located.

(4) Industry standards for maintenance and corrosion prevention.

(5) Maintenance recommendations or guidelines from the manufacturers of the production facilities.

(c) Maintenance of production facilities shall include, but not be limited to the following:

(1) Operators shall conduct external visual inspections at least once a month of aboveground production facilities, excluding pipelines, for leaks and corrosion. Facilities that are not operating properly or are leaking shall be repaired or replaced.

(2) Weeds and debris shall be removed from secondary containment areas or catch basins, and the integrity of all berms shall be inspected monthly. Fluids, including rainwater, shall be removed.

(3) Well cellars shall be covered and kept drained. Grating or flooring shall be installed and maintained in good condition so as to exclude people and animals. Cellars should be protected from as much runoff water as practical.

(4) Injection lines shall be disconnected from injection wells unless there is current approval from the Division for injection of fluid.

(d) All equipment and facilities in urban areas shall be enclosed individually or with perimeter fencing in accordance with Section 1778(a) or Section 1778(e) where it is necessary to protect life and property. Enclosures in nonurban areas shall be constructed in accordance with Section 1778(a) or Section 1778(b) where necessary to protect life and property.

(e) The Supervisor may order the operator to inspect and test safety systems and equipment associated with consolidated production facilities. The frequency of the inspection and testing may be based on the manufacturer's recommendation.

(f) Vehicle access routes to all production facilities must be maintained in a safe and passable condition.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106, 3224 and 3270, Public Resources Code.

1777.1. Production Facility Inspection Frequency.

(a) The Supervisor may order an operator to conduct inspections required under Sections 1773.3(b), 1774.1(a) or 1777(c)(1) more frequently if the operator:

(1) Has failed to comply with an order of the Supervisor;

(2) Has a history of leakage or spills at a specific well or production facility; or

(3) Has a history of noncompliance with Public Resources Code, Division 3, Chapter 1 and the regulations promulgated thereunder.

(b) Every two years after the effective date of an order issued under this section, the Supervisor shall review the operator's history of compliance, leaks and spills to determine whether the order should be rescinded.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106, 3224 and 3270, Public Resources Code.

1777.2. Production Facility Reporting Requirements.

(a) Any operator acquiring the right to operate a facility shall notify the local district office in writing within 30 days after finalizing the sale or transfer with the following information:

(1) The facility location;

(2) A unique alphanumeric tank identification number designated by the operator consisting of 10 characters or less;

(3) The date the transaction became effective; and

(4) The facility lease name.

(b) Operators shall notify the local district office within 60 days after completing new construction, alteration, or decommissioning of a production facility, or reactivating an Out–of-Service tank. This notification report shall describe the activities and reference the production facilities that have been added, altered or decommissioned.

(c) Operators shall notify the local district office two days or more prior to conducting required tank or pipeline testing specified in Sections 1773.4 or 1774.1.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106, 3202 and 3270, Public Resources Code.

1777.3. Production Facility Documentation Retention Requirements.

(a) Operators shall maintain records of construction, installation, maintenance and repair operations, tests, and inspections and shall retain the documentation as follows:

(1) For construction, installation and major repairs, documentation shall be retained for the life of the production facility.

(2) For routine maintenance and minor repairs, documentation shall be retained for five years.

(3) For required inspections and tests, documentation shall be retained for five years or for the last two times that the inspection or test has been performed, whichever is longer.

(b) Documentation shall include, but is not limited to:

(1) Name, type, and location of the production facility;

(2) Description of the construction, repair, maintenance, test, or inspection performed;

(3) Date(s) of the activity;

(4) Personnel that performed the construction, repair, maintenance, test, or inspection and their qualifications.

(c) Documentation shall be available for review by the Supervisor or his or her representative and maintained at the operator's local office at all times during regular business hours. If the operator does not have a local office, copies of the documentation shall be sent to the local Division district office upon request.

NOTE: Authority cited: Sections 3013 and 3270, Public Resources Code. Reference: Sections 3106, and 3270, Public Resources Code.

1778. Enclosure Specifications.

(a) Chain link fences. All chain link fences shall be constructed to meet the following specifications:

(1) Fences shall be not less than 5 feet high and mounted on 1 1/4" diameter steel posts with at least three strands of barbed wire mounted at a 45-degree angle from the top of the fence.

(2) The fence shall be constructed of chain link or other industrial-type fencing of not less than 11-gauge wire and of not greater than 2-inch nominal mesh.

(3) Supporting posts shall be securely anchored to the surface, spaced no more than 14 feet apart. Provisions for removable posts may be approved provided that the anchoring device is an integral part of the fence.

(4) Tension wires of at least No. 9 gauge coil spring wire, or equivalent, shall be stretched at the top and bottom of the fence fabric and shall be fastened to the fabric at 24-inch intervals. There shall be no aperture below the fence large enough to permit any child to crawl under.

(b) Wire fences. All wire fences shall be constructed to meet the following specifications:

(1) There shall be either: (1) four strands of barbed wire spaced 12 inches between strands and maintained with sufficient tension to preclude sagging; or (2) commercial livestock wire netting with a minimum height of 4 feet and sufficient tension.

(2) Posts may be of any material of sufficient strength and rigidity to support the wire and restrain people or livestock from pushing them over. Posts shall be set no more than 10 feet apart and buried at least 12 inches into the ground.

(c) Gates. Gates shall be of a structure substantially the same as the required fences and shall be kept secured when not attended by an adult.

(d) Screening. All screening to cover sumps shall meet the following specifications:

(1) Be not greater than 2-inch nominal mesh.

(2) Be of sufficient strength to restrain entry of wildlife.

(3) Be supported in such a manner so as to prevent contact with the sump fluid.

(e) Other Types of Materials. Any material that can be used effectively to restrict access may be substituted for the materials indicated in (a), (b), (c), and (d), if approved by the Supervisor.

NOTE: Authority cited: Sections 3013, 3106 and 3782, Public Resources Code. Reference: Sections 3106 and 3781, Public Resources Code.

1779. Special Requirements.

The Supervisor in individual cases may set forth other requirements where justified or called for.

NOTE: Authority cited: Sections 3013 and 3106, Public Resources Code. Reference: Sections 3106, 3226 and 3787, Public Resources Code.

Subchapter 2.1. Methane Gas Hazards Reduction Assistance

1790. Purpose.

This subchapter specifies the criteria and procedures to be followed by the Department of Conservation in administering the Methane Gas Hazards Reduction Program for Eligible Jurisdictions under Section 3860 of the Public Resources Code.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Sections 3860 and 3863, Public Resources Code.

1791. Definitions.

(a) **"CEQA**" means the California Environmental Quality Act.

(b) **"Department"** in reference to the government of this State, means the Department of Conservation in the Resources Agency.

(c) **"Director"** means the Director of Conservation.

(d) **"Eligible Activity"** means any one of the four purposes listed in Section 3860 of the Public Resources Code.

(e) **"Eligible Jurisdiction"** per Section 3855(b) of the Public Resources Code means counties and cities identified as having methane gas hazards in the study conducted by the State Oil and Gas Supervisor pursuant to Article 4.1 (commencing with Section 3240) of the Public Resources Code.

(f) **"Final Application"** means the application that is filed after the Department has approved a preapplication and has notified the eligible jurisdiction of its grant award.

(g) **"Notice of Intent to File"** means a brief project description and an estimate of the anticipated project expenditures to be covered by a grant award. This notice will be used by the Director to determine the number of jurisdictions that plan to request a grant award and the equitable amount of grant monies that ultimately may be applied for by each eligible jurisdiction.

(h) **"Methane Gas Hazards"** per Section 3855(a) of the Public Resources Code means collections of biogenic or thermogenic gases identified as hazards in the study conducted by the State Oil and Gas Supervisor pursuant to Article 4.1 (commencing with Section 3240) of the Public Resources Code.

(i) **"Mitigation Project"** is an eligible activity that identifies the potential adverse impact of accumulations of methane gas and implements measures to reduce or eliminate those impacts.

(j) **"Preapplication"** means a report that contains a detailed project preapplication as described in Section 1793(e) of this chapter. This preapplication will be used by the Director to evaluate project proposals.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Sections 3240, 3855, 3860 and 3863, Public Resources Code.

1792. Amount of Financial Assistance Available.

(a) The Department shall distribute approximately three hundred and fifty thousand dollars ($350,000) in the 1988-89 fiscal year as grant awards for planning, equipment purchases, installation, and other measures related to the mitigation of methane gas hazards. Ongoing maintenance and monitoring activities of eligible jurisdictions shall not be financed by grants pursuant to this chapter.

(b) The amount of the initial grant monies available for each eligible jurisdiction shall be determined by the Director, following a review of the notices of intent to file grant applications. Within 15 days following the receipt of all notices, the Director will notify each jurisdiction of the approximate amount available for their proposed activity.

(c) Any funds distributed after the initial award shall be based upon the availability of remaining funds and a demonstration of the need for additional funds to augment an initial award, or to begin a new eligible activity.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Sections 3860, 3863 and 3865, Public Resources Code; and 1987 Statutes, Chapter 1322, Section 4.

1793. Application and Award Procedures.

(a) Within 15 days of the effective date of this subchapter, the Department shall notify jurisdictions of their eligibility to apply for grants. A notice of intent to file an application for a grant shall then be submitted by a jurisdiction to the Director no later than 30 days after notification of eligibility by the Department. The notice of intent to file should include a brief project description and an estimate of the anticipated expenditures to be covered by a grant award.

(b) Per Section 3861 of the Public Resources Code, eligible jurisdictions must provide opportunity for public review and comment, and shall hold at least one public hearing in regard to how the funds are to be expended. The hearing shall be held within 90 days after a jurisdiction is notified (per Section 1792(b)) of the approximate amount available for the proposed activity.

(c) Eligible jurisdictions shall submit a preapplication to the Director within 30 days after the last scheduled public hearing. The preapplication shall provide information indicated in Section 1793(e) and a description of how the grant award is to be expended. Also, the jurisdiction shall submit a copy of any public comments received regarding the preapplication and the jurisdiction's response to the public comments.

(d) The decision to award grants for the purposes set forth in Section 3860 of the Public Resources Code will be based upon information included in the preapplication.

(e) The preapplication shall include:

(1) Name, mailing address, and phone numbers of the project director, the budget officer, and the project manager.

(2) A detailed project narrative that includes:

(A) A detailed project description, including the problem to be solved and an explanation of how the funds are to be used to solve or mitigate the problem.

(B) The anticipated effect of the project on mitigating the methane gas hazard in the area.

(C) The expected benefits to the jurisdiction.

(D) Budget (including other funding sources investigated or secured for the project). The budget should include estimates for direct and indirect expenses.

(E) A work statement describing tasks and products (reports, technical studies, engineering plans, etc.)

(F) A project schedule to present the relationship between work tasks and the amount of time required for the work to be completed.

(G) A statement of applicable laws and regulations, including CEQA, that may affect the project.

(H) Related activities undertaken, if any.

(I) Any other information that may be relevant.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Sections 3861, 3862 and 3863, Public Resources Code.

1794. Preapplication Criteria.

In evaluating the preapplications, the Department shall consider, but not be limited to, the following criteria:

(a) Urgency of need.

(b) Consistency with the purposes and allowable activities.

(c) Cost effectiveness.

(d) Extent to which the requested grant amount is used to leverage other funding sources.

(e) Availability of alternative sources of funding.

(f) Likelihood that the project objectives will be achieved.

(g) Compliance with CEQA and other applicable laws and regulations.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Section 3863, Public Resources Code.

1795. Preapplication Review.

(a) Within 15 days of receipt of a preapplication, the Department shall provide written comments addressing the completeness of the submitted information. The preapplication shall be deemed complete when the preapplication is considered by the Department to be adequate for evaluation purposes. The staff of the Department of Conservation shall complete the review of preapplications within 60 days of receipt of a complete preapplication.

(b) Within 15 days of receipt of written comments, an applicant may request a meeting with the staff to discuss the staff comments concerning completeness of the application. The meeting should be held within 10 days of the request.

(c) Notification of grant awards or denials will be made by the Director within 15 days following completion of staff review. Even though a jurisdiction is notified that they will receive a grant, payment of the grant monies cannot be made until the provisions of Sections 3861 and 3862 of the Public Resources Code have been fulfilled, and the final application that meets the requirements of Section 1796 of this chapter has been filed with the Department.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Sections 3861, 3862 and 3863, Public Resources Code.

1796. Final Application Requirements.

The final application shall include:

(a) Evidence that the items required by subsections (a), (b), and (c) of Section 3862 of the Public Resources Code have been completed.

(b) A resolution or notification from the eligible jurisdiction's governing body authorizing the request for the grant award.

(c) A statement of compliance with CEQA requirements, if CEQA compliance was necessary for the activity.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Section 3863, Public Resources Code.

1797. Fiscal Requirements for Grants.

(a) Eligible jurisdictions receiving a grant shall establish a separate ledger account for expenditures that will be paid or are expected to be paid by grant funds. This will provide separate accountability for grant activities, ensure that expenditures to be paid by grant funds are not commingled with other funds, and feature accounting records that are supported by source documents.

(b) Financial reports to the Department shall be submitted on a semi-annual basis.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Section 3863, Public Resources Code.

1798. General Information.

(a) All correspondence, notices of public hearings, notices of intent, preapplications, final applications, and financial reports shall be submitted to the Department of Conservation in Sacramento and to the Division of Oil, Gas, and Geothermal Resources in Cypress. The addresses will be provided when a jurisdiction is notified of their eligibility to receive a grant award.

(b) Extensions of time periods indicated in this subchapter may be granted upon the showing of good cause.

NOTE: Authority cited: Section 3863, Public Resources Code. Reference: Section 3863, Public Resources Code.

Subchapter 3. Unit Operations

Article 1. General

1810. Purpose.

It is the purpose of this subchapter to set forth the rules and regulations governing the submittal of proposed unit agreements, modifications thereof, additions thereto, and disagreements with respect to unit operations as provided in Chapter 3.5 (commencing with Section 3630) of Division 3 of the Public Resources Code and to implement, interpret and to make specific the provisions of said Chapter 3.5.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Sections 3630-3690, Public Resources Code.

Article 2. Definitions and Standards

1821. Standards.

In implementing Chapter 3.5, the following standards shall be applied by the Supervisor whenever relevant in any determination or order:

(a)**"Price of hydrocarbons"** shall be the current price as of the date of the petition for:

(1) Crude oil and liquid or liquefied products extracted and sold from wet gas, the average posted price for crude oil and like products of the same gravity in the field of which the unit area is a part, or if none, in the nearest field;

(2) Residue dry gas, the average price in the field in which the unit area is located.

In the event there are no relevant posted prices or a dry gas price, all relevant data shall be considered.

(b) **"Reasonable value of the use of the surface"** as used in Public Resources Code Section 3648 shall be deemed to be fair rental value. The amount stipulated in the unit agreement shall be accepted as the fair rental value for any parcel for which royalty owners have signed the agreement. For those royalty owners included by an order by the Supervisor, the fair rental value shall be determined by the Supervisor.

(c) **"Present worth value"** as used in Public Resources Code Section 3643(d) shall be determined by using a discount rate equal to two percent above the generally prevailing prime rate charged by three major banks in the district in which the field of which the unit area is a part as of the date of the filing of the petition.

(d) The **"reasonable interest charge"** provided for in Public Resources Code Section 3646(b) shall not exceed two percent above the generally prevailing prime rate charged by major banks in the metropolitan area nearest the field of which the unit area is a part as of the first day of January and the first day of July of each year.

(e) Upon a petition of a person for carrying or otherwise financing made pursuant to Section 3646(b), the Supervisor shall order a committee to review the matter and submit a report. The committee shall be made up of one person nominated by the petitioner, one person nominated by the unit operator and one person chosen by the other two nominees, or in the event of disagreement between such two nominees as to the selection of the third person, one person chosen by the Supervisor. The committee shall review all data and submit a report and recommendation to the Supervisor as to (1) whether the petitioner is unable to meet his or her financial obligations in connection with unit operations; and (2) a program and plan for carrying or otherwise financing the petition, including but not limited to source of money, recommended interest rate and source of funds for repayment including future production from the petitioner's tract or tracts.

(f) Under Section 3646(b) of the Public Resources Code, the provisions for carrying or otherwise financing persons who request the same and are determined by the Supervisor to be unable to meet their obligations in connection with the unit operations, shall be met in one of the following methods:

(1) By one or more of the working interests.

(2) By the unit operator.

(g) The tract share or tract assignment of hydrocarbon production shall be determined by calculating the estimated economic production using good oil field practices and prudent engineering.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Sections 3643(d), 3644, 3646(b), 3648 and 3652, Public Resources Code.

Article 3. Fees and Costs

1830. Fees.

Upon filing a petition pursuant to this subchapter, the petitioner shall pay to the Supervisor the fees set forth in this section. The Supervisor may defer payment of a filing fee after a showing of good cause by the petitioner, but in no event shall payment be deferred beyond the effective date of the Supervisor's order under Sections 3645, 3649, or 3651 of the Public Resources Code.

(a) For any petition for approval of a unit agreement, the fee shall be $3,500.00.

(b) For any other petition, the fee shall be $2,500.00.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3685, Public Resources Code.

1831. Costs.

(a) After the filing of a petition, and from time to time as the Supervisor finds necessary, the Supervisor may issue orders requiring the deposit of funds with the Supervisor to cover the actual or estimated costs incurred by the State in the administration of Chapter 3.5 of Division 3 of the Public Resources Code or this subchapter.

(b) Within 5 working days after issuance of an order by the Supervisor pursuant to subsection (a), the petitioner shall make the required deposit. For a petition requesting the Supervisor's review and decision pursuant to Section 3653 of the Public Resources Code, all costs paid by the petitioner shall be reimbursed by the unit operator if the Supervisor upholds the position of the petitioner.

(c) Any excess funds deposited with the Supervisor shall be refunded after final disposition of the petition.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3685, Public Resources Code.

1832. Failure to Pay.

The Supervisor may dismiss the petition if the petitioner fails to pay a filing fee or deposit funds pursuant to an order of the Supervisor.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3685, Public Resources Code.

Article 5. Petitions

1850. Requests for Action.

(a) Requests for action of the Supervisor pursuant to Sections 3642, 3646(b), 3649, 3650, or 3653 of the Public Resources Code shall be made by filing a petition as provided in this article.

(b) A petition shall be signed by the petitioner and filed, together with 5 copies, with the district deputy of the district in which the unit area is located.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Sections 3642, 3646(b), 3649, 3650 and 3653, Public Resources Code.

1853. Contents of Petition Requesting Approval of Unit Agreement.

In addition to the information required by Section 3653.5 of the Public Resources Code, a petition requesting approval of a unit agreement shall contain:

(a) The names and addresses of all persons listed in the records of the county tax assessor as having an interest in the lands included in the proposed unit area.

(b) A certified copy of the resolution of the State Lands Commission approving the unit agreement in those cases where lands under the jurisdiction of the commission are in the proposed unit area.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Sections 3643(h) and 3653.5, Public Resources Code.

1854. Contents of Petition Requesting Approval of Modification of Unit Agreement.

A petition requesting approval of a proposed modification of a unit agreement previously approved by the Supervisor shall contain:

(a) A copy of the unit agreement and the proposed modification.

(b) A report, accompanied by appropriate data, which establishes that the proposed modification qualifies for approval pursuant to Section 3649 of the Public Resources Code.

(c) The names and addresses of all persons listed in the records of the county tax assessor as having an interest in the lands affected by the proposed modification.

(d) A certified copy of the resolution of the State Lands Commission approving the proposed modification of the unit agreement in those cases where lands under the jurisdiction of the commission are affected by the proposed modification.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3649, Public Resources Code.

1855. Contents of Petition Requesting Approval of Additions to Unit Area.

A petition requesting the addition of a tract or tracts of land to the unit area of the unit agreement previously approved by the Supervisor shall contain or have attached to it:

(a) A copy of the unit agreement and a description of the lands proposed to be added.

(b) A report, accompanied by appropriate data, which establishes that the request qualifies for approval pursuant to Section 3650 of the Public Resources Code.

(c) A recommendation, supported by data and calculations, of the appropriate allocation of unit production within the meaning of Section 3652 of the Public Resources Code.

(d) The names and addresses of all persons listed in the records of the county tax assessor as having an interest in the lands affected by the proposed addition.

(e) A certified copy of the resolution of the State Lands Commission approving the addition to the unit area of any lands under the jurisdiction of the commission.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3650, Public Resources Code.

1856. Resolution of Disagreement over Unit Operations.

A petition requesting review and decision by the Supervisor of a disagreement with respect to unit operations and each copy shall contain:

(a) A copy of the unit agreement and any applicable unit operating agreement.

(b) A report, accompanied by appropriate data, specifying in detail the nature of the disagreement.

(c) A recommended resolution of the disagreement, accompanied by supporting data and calculations.

(d) The names and addresses of all working interest owners in the unit, and all persons listed in the records of the county tax assessor as having an interest in the lands included in the unit area.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3653, Public Resources Code.

1857. Determination of Inability to Meet Financial Obligations.

A petition requesting the Supervisor to determine that the petitioner is unable to meet his or her financial obligations in connection with unit operations shall contain:

(a) A description of the petitioner's interest in the unit.

(b) A complete financial statement establishing that the petitioner is unable to meet his or her financial obligations in connection with the unit operations.

(c) The name and address of petitioner's nominee for the committee provided in Section 1821(e) of this subchapter.

(d) A statement of the petitioner's preferences, if any, as to the source of repayment, including any production that may be used as a source of repayment.

(e) A declaration that a copy of the petition has been sent to the unit operator.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3646(b), Public Resources Code.

1858. Additional Data.

The Supervisor may request additional data with regard to any petition, and that data shall be submitted by the petitioner or the unit operator within 30 days of the request. Failure to comply with the request may result in the dismissal of the petition.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Sections 3642, 3646(b), 3649, 3650 and 3653, Public Resources Code.

Article 6. Hearings

1863. Time and Place for Public Hearings.

(a) A public hearing shall be held no later than 45 days after the date the petition was filed. If a request for additional data has been made by the Supervisor pursuant to Section 1858 of this subchapter, the hearing shall be held no later than 75 days after the petition was filed.

(b) Public hearings shall be held at a convenient place within the district in which the unit area is located.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Sections 3643, 3649 and 3650, Public Resources Code.

1864. Notice.

(a) Written notice of all public hearings shall:

(1) Be sent by regular mail to those persons and entities designated in Section 3659 of the Public Resources Code and to all persons whose names and addresses have been provided in the petition.

(b) The notice shall state the time, place, and purpose of the hearing and that written or oral evidence shall be received at the hearing.

(c) The notices shall be sent no less than ten days prior to the date set for the public hearing.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3659, Public Resources Code.

1865. Hearing Procedures.

(a) All petitions shall be heard by the Supervisor or by a deputy designated by the Supervisor.

(b) The Supervisor or the designated deputy shall determine the manner in which the hearing shall be conducted and the form and content in which evidence may be presented.

(c) Within 60 days after the close of the hearing, the Supervisor shall issue a written order granting or denying the petition in whole or in part. The written order shall state the facts upon which the Supervisor bases his or her decision and the reasons for the decision.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Sections 3643, 3645, 3646, 3649, 3650, 3651 and 3652, Public Resources Code.

Article 8. Offers to Sell

1881. Notice of Offer to Sell.

(a) An offer of sale pursuant to Section 3647 of the Public Resources Code shall be made by filing a written notice of the offer to sell the interest with the district deputy of the district in which the unit area is located. The notice shall contain:

(1) An identification of the approved unit agreement.

(2) A description of the tract offered for sale.

(3) An identification of the oil and gas interest offered for sale, such as a royalty interest or working interest, together with a reference to any specific lease or contract giving rise to that interest, if applicable.

(4) The address where the offeror may receive any notices and communications concerning the offer.

(5) The price asked.

(b) Within five working days after receipt in the district office of the notice provided in subsection (a) of this section, the Supervisor shall send by regular mail copies of that notice to the unit operator and all working interest owners who have consented to the unit agreement.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3647, Public Resources Code.

1881.5. Notice of Intention to Purchase.

(a) Any working interest owner who desires to participate in the purchase of the offered interest shall file a notice of intention to purchase with the district deputy of the district in which the offered interest is located and shall give written notice thereof to the offeror on or before a date specified by the Supervisor, which shall be no later than 30 days after the date the notice of offer of sale is filed pursuant to Section 1881(a) of this subchapter.

(b) Negotiations toward the consummation of the purchase of the offeror's interest shall be undertaken in good faith by the offeror and by those working interest owners filing the notice of intention to purchase. Those negotiations shall be concluded on or before a date specified by the Supervisor, which shall be no later than 60 days after the date the notice of offer of sale is filed under Section 1881(a) of this subchapter.

(c) If the purchase price is agreed upon prior to the date specified in subsection (b) of this section, the offeror shall notify the Supervisor immediately in writing, and the parties shall proceed expeditiously to finalize the sale agreement. The sale agreement shall be promptly filed with the Supervisor and in no event shall be filed more than 15 days after written notice of the agreed price is given to the Supervisor.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3647, Public Resources Code.

1882. Disagreements as to Price.

(a) If the parties fail to agree upon the purchase price for the offered interest within the time specified in Section 1881.5(b) of this subchapter, either party may invoke the arbitration provisions of Section 3647 of the Public Resources Code, and such arbitration shall be governed by the procedures described therein and in this section.

(b) The person or persons electing arbitration shall file notice of the election in writing to the Supervisor within 5 calendar days of the expiration of the negotiation period provided in Section 1881.5(b) of this subchapter.

(c) Upon receipt of the notice provided in subsection (b) of this section, the Supervisor shall:

(1) Authorize the creation of an arbitration committee and direct that the committee act in accordance with the provisions of Section 3647 of the Public Resources Code.

(2) Designate one committee member to act as chairperson and direct the committee to make an independent appraisal of the interest offered for sale.

(3) Fix a date no later than 60 days after the date of receipt of the notice under subsection (b) of this section on or prior to which the committee shall submit to the Supervisor its determination of the fair market value of the interest offered for sale and a report summarizing the basis for that value. Such 60-day period may be extended by the Supervisor for one additional period of 30 days.

(d) Notice of the Supervisor's action under subsection (c) of this section shall be sent to the parties and the unit operator.

(e) Upon receipt of the determination of the fair market value and the report of the committee, the Supervisor shall send to the parties and the unit operator notice of the price at which the offered interest shall be purchased. Subject to the provisions for judicial review contained in Section 3647 of the Public Resources Code, the parties shall finalize the sale agreement and shall file the sale agreement with the Supervisor within 15 days after receipt of the Supervisor's notice of the price.

NOTE: Authority cited: Section 3685, Public Resources Code. Reference: Section 3647, Public Resources Code.

Subchapter 4. Statewide Geothermal Regulations

Article 1. General

1900. Purpose.

It is the purpose of this subchapter to set forth the rules and regulations governing the geothermal regulation program of the Division of Oil, Gas, and Geothermal Resources as provided for by Chapter 4 (Sections 3700-3776), Division 3, of the Public Resources Code.

NOTE: Authority cited: Sections 3700 through 3776, Public Resources Code.

1911. Scope of Regulations.

These regulations shall be statewide in application.

1914. Approval.

The approval of the Supervisor is required prior to commencing drilling, deepening, redrilling, or plugging and abandonment operations. The written approval shall list any and all requirements of the Division. In an emergency, the Supervisor or a designee may give verbal approval to the operator to start any operations covered by these regulations, provided the operator sends the Division a written notice of the emergency operations conducted within 5 days after receiving the verbal approval.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3712, 3714, and 3724, Public Resources Code.

Article 2. Definitions

1920.1. Definitions.

(a) "**Observation Well**" means a well drilled strictly for monitoring purposes.

(b) "**Exploratory Geothermal Well**" means a well other than a development well drilled to discover or evaluate the presence of either low-temperature or high-temperature geothermal fluids, including steam, where the surface location of the well is at least .8 km or one-half mile from the surface location of an existing well capable of producing geothermal fluids in commercial quantities.

(c) "**Development Well**" means a well, other than an exploratory well, drilled for the purpose of producing either high-temperature or low-temperature geothermal fluids in commercial quantities.

(d) "**Abandoned Well**" means a well the Supervisor so designates after it has been demonstrated that all steps have been taken to protect underground or surface water suitable for irrigation or other domestic uses from the infiltration or addition of any detrimental substance, and to prevent the escape of all fluids to the surface.

(e) "**Injection Well**" is a service well drilled or converted for the purpose of injecting fluids.

(f) "**High-Temperature Geothermal Fluid**" means a naturally heated subterranean fluid with a surface temperature equal to or higher than the boiling point of water.

(g) "**High-Temperature Well**" means a well drilled to discover, evaluate, produce, or utilize high-temperature geothermal fluids.

(h) "**High-Temperature Geothermal Field**" means an area so designated by the Supervisor for administrative purposes. The area shall contain at least one well capable of producing high-temperature geothermal fluids in commercial quantities.

(i) "**Low-Temperature Geothermal Fluid**" means naturally heated subterranean fluid with a surface temperature below the boiling point of water at ambient atmospheric pressure.

(j) "**Low-Temperature Geothermal Well**" means a well drilled to discover, evaluate, produce, or utilize low-temperature geothermal fluids where the fluids will be used for their heat value.

(k) "**Low-Temperature Geothermal Field**" means an area the Supervisor so designates for administrative purposes. The area shall contain at least one well capable of producing low-temperature geothermal fluids in commercial quantities.

(l) "**Idle Well**" means a well, other than a suspended well, that has not been officially plugged and abandoned, on which the operator has ceased all activity, including but not limited to drilling, production or injection.

(m) "**Production Tested**" means a well that the operator has tested for temperature, flow rate, and pressure.

(n) "**A well capable of producing geothermal fluid in commercial quantities**" means a well:

(1) Supplying geothermal fluid to an existing power plant or other facility for the purpose of generating electricity; or

(2) Production tested and scheduled to supply geothermal fluid to a power plant or other facility for the purpose of generating electricity for which:

(A) An application is pending before the California Energy Commission or the California Public Utilities Commission; or

(B) The California Energy Commission or California Public Utilities Commission has approved a site; or

(C) A contract has been executed between the supplier and a user and conditions have been fulfilled that commit the user to build a facility; or

(3) Supplying geothermal fluid or completed and scheduled to supply geothermal fluid to facilities existing, under construction, or committed for construction, for any nonelectric use of geothermal resources, including but not limited to space heating or food processing; or

(4) Production tested and, in the operator's opinion, able to supply sufficient geothermal energy to justify construction of a facility to utilize the energy, and designated capable of production by the Supervisor; or

(5) Production tested and found by the Supervisor, after a public hearing, to be capable of producing sufficient geothermal energy to be a commercially viable geothermal development project.

(o) "**Usable Thermal Energy**" means the usable heat energy contained in geothermal fluid, expressed in British Thermal Units or gigajoules.

(p) "**Notice**" means an application for permission to do work on a well.

(q) "**Drilling Log**" means the recorded description of the lithologic sequence encountered while drilling a well.

(r) "**Drilling Operations**" means the actual drilling or redrilling of a well for exploration, production, observation, or injection, including the running and cementing of casing and the installation of wellhead equipment. "Drilling Operations" do not include perforating, logging, or related operations after all the casing has been cemented.

(s) "**Suspension**" means the status assigned to a well that is temporarily abandoned pursuant to specified plugging requirements that are selected by the Division from the plugging and abandonment requirements contained in Sections 1980, 1981, 1981.1, and 1981.2 of this subchapter, and the operations necessary to cause temporary abandonment have been carried out by the operator and approved by the Division.

(t) With respect to well depth:

(1) "**Shallow**" means deeper than 25 feet (about 8 meters) but no deeper than 250 feet (about 76 meters);

(2) "**Intermediate**" means deeper than 250 feet (about 76 meters) but no deeper than 1,000 feet (about 305 meters);

(3) "**Deep**" means deeper than 1,000 feet (about 305 meters).

(u) "**BOPE**" is an acronym for blowout prevention equipment.

(v) "**Mineral Extraction Well**" means a well drilled, converted, or reworked for the purpose of discovering, evaluating, or producing minerals or other products in solution from naturally heated subterranean fluids. A low- or high-temperature geothermal well may also be a mineral extraction well.

NOTE: Authority cited: Sections 3712 and 3714, Public Resources Code. Reference: Section 3714, Public Resources Code.

1920.2. Field Designation.

The Supervisor may designate geothermal fields for administrative purposes. A field shall contain at least one well capable of producing geothermal resources in commercial quantities. The Supervisor shall establish the boundaries by graphically constructing a one-mile square around each well capable of producing geothermal resources in commercial quantities. Each such well shall be at the center of a square.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Section 3712, Public Resources Code.

1920.3. Field Rules.

When sufficient geologic and engineering information is available, the Supervisor may adopt or amend existing field rules for any geothermal resource field or area. Before adopting or amending field rules, the Supervisor shall notify affected persons, including but not limited to operators, landowners, and any utilities or other commercial users, and allow at least 30 days for them to comment on the proposed rules. The Supervisor shall notify affected persons in writing of the adoption of the rules.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Section 3712, Public Resources Code.

Article 3. Drilling

1930. General.

All wells shall be drilled in such a manner as to protect or minimize damage to the environment, usable ground waters (if any), geothermal resources, life, health and property.

1931. Notice of Intention to Drill.

Before an owner or operator can commence drilling a well, a Notice of Intention to Drill must be filed on a Division form (OGG105-11/93) and submitted to the Division, accompanied by the appropriate fee and bond (see Section 1932). The operator shall not commence drilling until the Division approves the Notice of Intention to Drill. The Notice shall include all information required on the Division form, and the following:

(a) A map showing the parcel boundaries and the location of the proposed well.

(b) If a government agency has prepared an environmental document for the proposed well, the name and address of the agency or a copy of the final environmental documents.

If operations on an exploratory well or observation well for which the Division is required to prepare environmental documents have not commenced within two years from the date the Notice of Intention to Drill was approved, the Division shall cancel the notice unless, prior to the expiration date, the operator requests an extension on a Rework/Supplementary Notice.

If operations on a development well, exploratory well, or observation well for which the Division is not required to prepare environmental documents have not commenced one year from the date the notice is approved, the Division shall cancel the notice unless, prior to the expiration date, the operator requests a time extension on a Rework/Supplementary Notice. The Division may extend these time limits at its discretion.

(c) Such other information as the Supervisor may require.

NOTE: Authority cited: Sections 3712 and 3714, Public Resources Code. Reference: Sections 3724 and 3724.1, Public Resources Code.

1931.1. Rework/Supplementary Notice.

If there is any change in the original Notice of Intention, or if the operator plans to deepen, redrill, plug, or perform any operation that will permanently alter the well casing, a Rework/Supplementary Notice must be filed with the Division. A fee and/or bond may be required if, for example, the proposal concerns entering a plugged and abandoned or suspended well.

If the drilling operations the Division approved on a Rework/Supplementary Notice have not commenced one year from the date the notice is approved, the Division shall cancel the notice unless, prior to the expiration date, the operator requests a time extension on a Rework/Supplementary Notice. The Division may extend this time limit at its discretion.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3712 and 3724, Public Resources Code.

1931.2. Notice to Convert to Injection.

An operator planning to convert an existing well to an injection or disposal well, even if there will be no change in mechanical condition, must file a Rework/Supplementary Notice with the Division and the Division must approve the notice before injection is commenced.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3712 and 3724, Public Resources Code.

1931.5. Unstable Terrain.

If the construction of drilling sites, roads, sumps, steam transmission lines, and other construction attendant to geothermal operations could cause or could be affected by slumping, landslides, or unstable earth conditions, the Supervisor shall require that the operator submit a written analysis of the proposed work prior to the commencement of any construction and prior to approving a permit to drill. At the request of the Supervisor, the report shall be prepared by a civil engineer, licensed in the state and experienced in soils engineering; and if slumping or landsliding could be involved, the requested report shall also be prepared by an engineering geologist, certified in the state and experienced in slope stability and related problems. No permit to drill shall be approved unless the report indicates that the work is planned in such a manner as to reasonably mitigate the problem throughout the life of the project.

Upon completion of any construction authorized by the Supervisor pursuant to this section, the operator shall certify in writing to the Supervisor that the work was carried out according to the approved plans subject only to changes approved by the Supervisor.

1932. Fees.

The appropriate fee, as listed below, shall be paid when the Notice of Intention to Drill is filed. (Refer to Section 1920.1 for definitions of terms and depth limitations.)

(a) $25 Fee.

(1) Shallow low-temperature geothermal well.

(2) Shallow observation well.

(b) $200 Fee.

(1) Shallow observation well program of up to and including 25 such wells (except as provided in PRC Section 3724.1).

(2) Intermediate depth low-temperature geothermal well.

(3) Intermediate depth observation well.

(c) $500 Fee.

(1) Intermediate depth observation well program of up to and including 5 such wells.

(2) Development well, other than low-temperature, to any depth.

(3) Deep low-temperature geothermal well.

(4) Injection well.

(5) Deep observation well.

(d) $1,000 Fee. Exploratory well, other than low-temperature, to any depth.

(e) If a Notice of Intention to Drill is canceled, the Division shall refund the fee paid by the operator, minus the Division's administrative costs for processing and reviewing the notice.

NOTE: Authority cited: Sections 3712 and 3714, Public Resources Code. Reference: Sections 3724 and 3724.1, Public Resources Code.

1933. Statewide Fee-Assessment Date.

June 15 of each year is established as the statewide fee-assessment date. Assessments for all geothermal operators shall be annually fixed on or before June 15. The funds provided by fees are for the supervision of geothermal resource wells during the fiscal year following the statewide fee-assessment date.

NOTE: Authority cited: Section 3724.5, Public Resources Code. Reference: Section 3724.5, Public Resources Code.

1933.1. Establishment of Annual Well Fees.

To establish the annual fee that must be charged to each geothermal well operator, the department, on or before the statewide fee-assessment date shall:

(a) Make an estimate of the sum of the well drilling fees that will be filed by operators during the fiscal year following the fee assessment date.

(b) Establish the appropriation for the supervision of geothermal resource wells from the amount proposed in the Governor's Budget. The appropriation shall be adjusted by any changes that have occurred during the legislative review process.

(c) Establish the estimated surplus or deficit from the current and prior fiscal year by calculating the cost of the supervision of geothermal resource wells and the actual revenues therefrom.

(d) Estimate the amount assessable to geothermal operators by taking the appropriation amount (paragraph b), deducting the well drilling fees (paragraph a), and adding or deducting the current year and prior year adjustments (paragraph c).

(e) Determine the total number of chargeable wells by identifying the total number of producing, service, and idle wells that existed at any time during the preceding calendar year in the state. A well that has changed

ownership one or more times during the preceding calendar year shall be counted only once, and assignment of charges shall be made to the operator of record on December 31 of that year. "Chargeable wells" shall not include:

(1) Any well used for observation purposes.

(2) Any well for which the Supervisor has approved a suspension. However, a well must be suspended for the entire calendar year to be nonchargeable.

(3) Any low-temperature well.

(f) Determine the annual well fee by dividing the amount assessable by the total number of chargeable wells.

(g) Determine the amount to be charged to each operator by multiplying the total number of chargeable wells of record on the previous December 31 by the annual well fee.

NOTE: Authority cited: Section 3724.5, Public Resources Code. Reference: Sections 3724, 3724.1 and 3724.5, Public Resources Code.

1933.2. Notification of Assessment.

On or before June 15 of each year, the Department shall notify each operator of that operator's assessment. If an operator believes an error has been made, the operator shall notify the Supervisor of the Division on or before July 1 following the notification of assessment.

NOTE: Authority cited: Section 3724.5, Public Resources Code. Reference: Section 3724.5, Public Resources Code.

1933.3. Establishment and Certification of Assessment Roll.

(a) The Director of the Department shall create an Annual Assessment Roll as of July 1 of each year. The assessment roll shall be comprised of the name of each operator, a billing address, the number of chargeable wells as identified by the provisions of Section 1933.1(e) of this subchapter, and the amount charged.

(b) On or before July 1, the Director shall transmit the roll to the State Controller, together with a certification stating that appeals have (or have not) been adjudicated and the assessment roll contains the true and correct amounts to be assessed to each operator.

(c) The Director shall keep on file and have available for public inspection during regular office hours, a listing of the chargeable wells by operator.

NOTE: Authority cited: Section 3724.5, Public Resources Code. Reference: Section 3724.5, Public Resources Code.

1933.4. Payments and Penalties.

(a) The charges levied and assessed are due and payable to the State Treasurer on the first of July of each year.

One-half of the charges shall be delinquent if not paid on or before August 15th of each year. The remaining one-half of the charges shall be delinquent if not paid on or before the first of February of the following year.

(b) Any person who fails to pay any charge within the time required shall pay a penalty of 10 percent of the amount due, plus interest on the charge due at the rate of 1 1/2% per month, or fraction thereof, computed from the delinquent date of the assessment until and including the date of payment.

(c) Any person who fails to pay any charge or penalty shall be subjected to the provisions of Sections 3772-3775 of the Public Resources Code.

NOTE: Authority cited: Section 3724.5, Public Resources Code. Reference: Sections 3724.5 and 3724.6, Public Resources Code.

1935. Casing Requirements.

All wells shall be cased in such a manner as to protect or minimize damage to the environment, usable ground waters and surface waters (if any), geothermal resources, life, health and property. The permanent wellhead completion equipment shall be attached to the production casing or to the intermediate casing if production casing does not reach to the surface.

Division specifications for casing strings shall be determined on a well-to-well basis. All casing strings reaching the surface shall provide adequate anchorage for blowout-prevention equipment, hole pressure control and protection for all natural resources. The following casing requirements are general but should be used as guidelines in submitting proposals to drill.

1935.1. Conductor Pipe.

Conductor pipe shall be cemented with sufficient cement to fill the annular space from the shoe to the surface. An annular blowout preventer, or its equivalent, approved by the Division, shall be installed on conductor pipe for exploratory wells and development wells when deemed necessary by the Division. The Division may waive this requirement for low-temperature geothermal wells.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3739 and 3740, Public Resources Code.

1935.2. Surface Casing.

Surface casing shall provide for control of formation fluids, for protection of shallow usable groundwater, and for adequate anchorage for blowout prevention equipment. All surface casing shall be cemented with sufficient cement to fill the annular space from the shoe to the surface. The following requirements may be modified or waived by the Division for low-temperature geothermal wells.

(a) Length of Surface Casing.

(1) In areas where subsurface geological conditions are variable or unknown, surface casing in general shall be set at a depth equaling or exceeding 10 percent of the proposed total depths of wells drilled in such areas. A minimum of 60 meters (about 200 feet) and a maximum of 400 meters (about 1,300 feet) of surface casing shall be set.

(2) In areas of known high formation pressure, surface casing shall be set at a depth determined by the Division after a careful study of geological conditions.

(3) Within the confines of designated geothermal fields, the depth at which surface casing shall be set shall be determined by the Division on the basis of known field conditions.

(b) Cementing Point for Surface Casing. Surface casing shall be cemented through a sufficient series of low permeability, competent lithologic units (such as claystone or siltstone) to ensure a solid anchor for blowout prevention equipment and to protect usable groundwater and surface water from contamination. A second string of surface casing may be required if the first string has not been cemented through a sufficient series of low permeability, competent lithologic units, and either a rapidly increasing thermal gradient or rapidly increasing formation pressures are encountered.

(c) Drilling Fluid Return Temperatures. The temperature of the return drilling fluid shall be monitored continuously during the drilling of the surface casing hole. Either a continuous temperature monitoring device shall be installed and maintained in working condition, or the temperature shall be read manually. In either case, return drilling fluid temperatures shall be entered into the log book after each joint of pipe has been drilled down (every 10 meters, about 30 feet).

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3739 and 3740, Public Resources Code.

1935.3. Intermediate Casing.

Intermediate casing shall be required for protection against anomalous pressure zones, cave-ins, washouts, abnormal temperature zones, uncontrollable lost circulation zones or other drilling hazards. Intermediate casing strings shall be, if possible, cemented solid to the surface.

1935.4. Production Casing.

Production casing may be set above or through the producing or injection zone and cemented above the objective zones. Sufficient cement shall be used to exclude overlying formation fluids from the zone, to segregate zones, and to prevent movement of fluids behind the casing into zones that contain usable groundwater. Production casing shall either be cemented with sufficient cement to fill the annular space from the shoe to the surface or lapped into intermediate casing, if run. Production casing lapped into an intermediate string, shall overlap at least 15 meters (about 50 feet); the lap shall be cemented solidly; and shall be pressure tested to ensure its integrity.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3739 and 3740, Public Resources Code.

1936. Electric Logging.

All wells, except observation wells and low-temperature thermal wells, shall be logged with an induction electrical log, or equivalent, from total depth to the bottom of the conductor pipe, except in the case where air is used as the drilling medium. This requirement may be waived by the Supervisor and may vary depending on geologic conditions as stated in Section 1935.2(a)(2).

1937.1. Records Required to Be Filed with the Division.

(a) Drilling Log and Core Record. The drilling log shall show the lithologic characteristics and depths of formations encountered, the depths and temperatures of water-bearing and steam-bearing strata, the temperatures, chemical compositions, and other chemical and physical characteristics of fluids encountered from time to time, so far as ascertained.

The core record shall show the depth, lithologic character and fluid content of cores obtained, so far as determined.

(b) Well History. The history shall describe in detail in chronological order on a daily basis all significant operations carried out and equipment used during all phases of drilling, testing, completion, recompletion and plugging and abandonment of the well.

(c) Well Summary Report. The well summary report shall accompany the core record and well history reports. It is designed to show data pertinent to the condition of a well at the time of completion of work done.

(d) Production Records. Monthly production records shall be filed with the Division on or before the 30th

day of each month, for the last preceding calendar month.

(e) Injection Records. Monthly injection records shall be filed with the Division on or before the 30th day of each month, for the last preceding calendar month.

(f) Other Records. The following shall also be filed with the Division, if run: electric logs, physical or chemical logs, tests, water analyses, and surveys (including temperature surveys and directional surveys).

Article 4. Blowout Prevention

1941. General.

Blowout-Prevention Equipment (BOPE) installations shall include high temperature-rated packing units and ram rubbers, if available, and shall have a minimum working-pressure rating equal to or greater than the lesser of:

(a) A pressure equal to the product of the depth of the BOPE anchor string in meters times 0.2 bar per meter. (Feet times one (1) psi per foot)

(b) A pressure equal to the rated burst pressure of the BOPE anchor string.

(c) A pressure equal to 138 bars (2,000 psi).

Specific inspections and tests of the BOPE shall be made by the Division. The requirements for such tests will be included in the Division's answer to the notice of intention to drill.

1942. BOPE Guide.

The Division shall prepare a guide for establishing the blowout prevention equipment requirements specified in the Division's approval of proposed operations.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Section 3739, Public Resources Code.

1942.1. Unstable Areas.

Drilling any wells, including water wells, is prohibited in areas containing fumaroles, geysers, hot springs, mud pots, etc. (unstable areas), unless the Division determines, after a thorough geological investigation, that drilling in an unstable area is feasible. In this case, a special permit may be issued. The following may be required for a well drilled in an unstable area:

(a) A Division engineer shall be present at the well at all times during the initial phases of drilling until the surface casing has been cemented and the BOPE has been pressure-tested satisfactorily. The Division engineer may observe all drilling operations at the well and if, in his or her opinion, conditions warrant, may order a second or third string of surface casing to be run.

(b) The operator, while drilling the surface casing hole, shall continuously monitor and record the following:

(1) Drilling fluid temperature (in and out),

(2) Drilling fluid pit level,

(3) Drilling fluid pump volume,

(4) Drilling fluid weight, and

(5) Drilling rate.

(c) A drilling fee in addition to the fee specified in Section 1932, up to the maximum of $1,000 per well, depending on the geologic conditions in the area.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3724, 3739, 3740, and 3741, Public Resources Code.

1942.2. Cable Tool Drilling.

This method of drilling, or any other method of drilling, will be allowed, at the discretion of the Supervisor, with certain stipulations in the following cases only:

(a) Areas where formation pressures are known to be hydrostatic and are known to contain geothermal fluids at shallow depths, and where down-hole temperatures are less than 100 degrees C (212 degrees F).

(b) Areas where geothermal fluids have been produced from shallow wells, less than 150 meters (500 feet) true vertical depth, over a number of years with no known history of a blowout or geyser.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3712 and 3715, Public Resources Code.

Article 5. Completion and Production

1950. Official Completion.

A well is considered to be completed 30 days after drilling operations have ceased and the well is capable of producing a geothermal resource, or 30 days after the well has commenced to produce a geothermal resource, unless drilling operations are resumed before the end of the 30-day period.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Section 3737, Public Resources Code.

1950.1. Time Limits.

For the purpose of filing drilling records pursuant to Section 3735, Public Resources Code, the 60 day time limit for filing such records shall begin when the Division determines that a well is completed, idle, or plugged and abandoned.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Section 3735, Public Resources Code.

1952. Maintenance.

All wellheads, separators, pumps, mufflers, manifolds, valves, pipelines and other equipment used for the production of geothermal resources, shall be maintained in good condition in order to prevent loss of or damage to life, health, property and natural resources.

1953. Corrosion.

All surface wellhead equipment and pipelines and subsurface casing and tubing will be subject to periodic corrosion surveillance in order to safeguard life, health, property and natural resources.

1954. Tests.

(a) Requirements. The Supervisor shall require such tests or remedial work as in his or her judgment are necessary to prevent damage to life, health, property, and natural resources, to protect geothermal reservoirs from damage or to prevent the infiltration of detrimental substances into underground or surface water suitable for agricultural, industrial, municipal, or domestic purposes, to the best interest of the neighboring property owners and the public.

(b) Types of Tests.

(1) Casing Tests

(A) Spinner surveys
(B) Wall thickness
(C) Lap
(D) Pressure
(E) Radioactive tracer surveys
(2) Cementing Tests
(A) Cementing of casing
(B) Pumping of plugs
(C) Hardness of plugs
(D) Depths of plugs
(3) Equipment Tests
(A) Gauges
(B) Thermometers
(C) Surface facilities, lines, vessels, etc.
(D) Blowout-prevention equipment. BOPE inspections and/or tests are normally performed on all drilling wells. The Supervisor requires that the blowout-prevention equipment be tested prior to drilling out the shoe of the surface casing. A Division engineer must be contacted to witness a pressure test of each preventer of the well prior to drilling out the shoe of the surface casing.

Article 6. Injection

1960. Definition.

Injection wells are those used for the disposal of waste fluids, the augmentation of reservoir fluids, pressure maintenance of reservoirs or for any other purpose authorized by the Supervisor. New wells may be drilled and/or old wells may be converted for water injection or disposal service. Notices, bonds and fees are required for drilling or conversion as stated in Article 3.

1961. Projects.

Following is an outline which sets forth the requirements for initiating an injection project. Data and exhibits need only extend or cover the injection zone and zones which will possibly be affected by an injection project:

(a) Letter setting forth the entire plan of operations, which should include:
(1) Reservoir conditions.
(2) Method of injection: through casing, tubing, or tubing with a packer.
(3) Source of injection fluid.
(4) Estimates of daily amount of water to be injected.
(b) Map showing contours on a geologic marker at or near the intended zone of injection.
(c) One or more cross sections showing the wells involved.
(d) Analyses of fluid to be injected and of fluid from intended zone of injection.
(e) Copies of letter or notification sent to neighboring operators if deemed advisable by the Supervisor.

1962. Project Approval.

A written approval of a project will be sent to the operator and such approval will contain those provisions specified by the Division as necessary for safe operations. Injection shall not commence until approval has been obtained from the Division.

1963. Notice to Drill New Well or Convert Existing Well.

Prior to the operator doing work on a well, the appropriate notices must be approved by the Division. Proposals to drill new wells for injection purposes shall be filed on the Division form entitled Notice of Intention to Drill New Well (OGG 105). Proposals to convert existing wells shall be filed on the Division form entitled Rework/Supplementary Notice.

Bonds and fees are required for all proposed wells. The bonds and fees for an injection well are the same as those required for a development well.

Injection wells shall conform to the Division's spacing regulations.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3712, 3723, 3724, and 3725, Public Resources Code.

1964. Subsequent Work.

A Rework/Supplementary Notice is required for any subsequent work that alters the well casing(s) or changes the use of the well as provided in Section 1966(f).

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Sections 3724, 3724.2, 3724.3, Public Resources Code.

1966. Surveillance.

(a) Surveillance of waste water disposal or injection projects is necessary on a continuing basis to establish to the satisfaction of the Supervisor that all water is confined to the intended zone of injection.

(b) When an operator proposes to drill an injection well, convert a producing or idle well to an injection well, or rework an injection well and return it to injection service, the operator shall be required to demonstrate complete casing integrity to the Division by means of a specific test.

(c) To establish the integrity of the casing and the annular cement above the shoe of the casing, within 30 days after injection is started into a well, the operator shall make sufficient surveys to demonstrate that all the injected fluid is confined to the intended zone of injection. Thereafter, such surveys shall be made at least every two years, or more often if ordered by the Supervisor or his or her representative. All such surveys shall be witnessed by a Division engineer.

(d) After the well has been placed on injection, a Division inspector shall visit the well site periodically. At these times, surface conditions shall be noted and, if any unsatisfactory conditions exist, the operator shall be notified of required remedial work. If this required work is not performed within 90 days, the approval issued by the Division shall be rescinded. The Supervisor may order that the repair work be done immediately if it is determined that damage is occurring at a rapid rate.

(e) Injection pressures shall be recorded and compared with the pressures reported on the monthly injection reports. Any discrepancies shall be rectified immediately by the operator. A graph of pressures and rates versus time shall be maintained by the operator. Reasons for anomalies shall be promptly ascertained. If these reasons are such that it appears damage is being done, approval by the Division may be rescinded, and injection shall cease.

(f) When an injection well has been idle for two years, the Division may inform the operator, by letter, that approval for use of the well for injection purposes is rescinded. If the operator intends to reclaim the well for injection purposes, a Rework/Supplementary Notice shall be filed proposing to demonstrate by specified tests that the injected fluid will be confined to the intended zone of injection.

NOTE: Authority cited: Section 3714, Public Resources Code. Reference: Section 3712, Public Resources Code.

Article 7. Subsidence

1970. Responsibility.

The prime responsibility for subsidence detection and abatement in geothermal areas in the State of California lies with the Division of Oil, Gas, and Geothermal Resources.

1971. Imperial Valley Subsidence Regulations.

(a) Surveys and Bench Marks.

(1) Subsidence bench marks, at wellsites, tied to existing first- and/or second-order networks, are required for all wells that will be tested or produced. These bench marks shall be the responsibility of and at the expense of the operator. Surveys shall precede extensive production testing of the well.

(2) All survey work shall be coordinated with the County Surveyor.

(3) All work shall be done under the direct supervision of a Registered Civil Engineer or Licensed Land Surveyor.

(4) An adequate series of bench marks shall be set as required by the Division and shall be tied to existing survey nets.

(5) All field work, computations, etc., shall conform to National Geodetic Survey (N.G.S.) standards. Refer to "Manual of Geodetic Leveling" (1948).

(6) All surveys shall be second-order or better.

(7) All single-point tie-ins shall be double-run. Survey loops between two points on existing surveys may be single-run.

(8) Equipment shall be equal to or better than that accepted by the N.G.S. for second-order surveys. The N.G.S. procedures shall be followed.

(9) Types of acceptable bench marks are:

(A) Brass rod driven to refusal or 9 meters (about 30 feet) and fitted with an acceptable brass plate.

(B) Permanent structure (head walls, bridges, etc.) with installed plate.

(10) Bench marks at wellsites shall be situated so as to minimize the possibility of being destroyed during any subsequent work-over activity at the wells. Each bench mark shall be well marked so as to be plainly visible to work-over crews.

(11) Between the wellsite and the network, bench marks shall be set at one-half mile intervals or as specified by the Division.

(12) Surveys shall be run annually by and at the expense of the operator while well(s) are being produced unless otherwise specified by the Division.

(13) The adjusted data from all surveys shall be submitted to the Division within 60 days after leveling is completed.

(14) Resurveys of the first- and second-order networks shall be coordinated by the Division.

(b) Reservoir Engineering.

(1) Initial bottom-hole pressures and temperatures (allowing a minimum of one month static time) shall be submitted to the Division within thirty (30) days of completion of work.

(2) All preliminary test data shall be submitted to the Division within 30 days of completion of the tests.

(3) Monthly surface recordings of production, injection, temperature, and pressure shall be reported to the Division on the appropriate forms.

(4) Periodic development and review meetings between operators and the Division shall be required (at least one per year).

Article 8. Plugging and Abandonment

1980. Objectives.

The objectives of abandonment plugging are to block interzonal migration of fluids so as to:

(a) Prevent contamination of the fresh waters or other natural resources.

(b) Prevent damage to geothermal reservoirs.

(c) Prevent loss of reservoir energy.

(d) Protect integrity of reservoirs.

(e) Protect life, health, environment and property.

1981. General Requirements.

The following are general requirements which are subject to review and modification for individual wells or field conditions. The Division may require the witnessing of any or all of the field operations listed below.

(a) Notice of Intention to plug and abandon Geothermal Resources Well, is required for all wells.

(b) History of Geothermal Resources Well shall be filed within 60 days after completion of the plugging and abandonment.

(c) The Division's Report of Well plugging and abandonment, will not be issued until all records have been filed and the site inspected for final cleanup by a Division engineer.

(d) Subsequent to the plugging and abandonment of the hole, all casings shall be cut off at least 2 meters (6 feet) below the surface of the ground, all concrete cellars and other structures shall be removed, and the surface location restored, as near as practicable, to original conditions. The landowner has the option to assume legal responsibility for a well; however, to do so he or she must have legal clearance from the Division.

(e) Good quality, heavy drilling fluid approved by the Supervisor shall be used to replace any water in the hole and to fill all portions of the hole not plugged with cement.

(f) All cement plugs, with the possible exception of the surface plug, shall be pumped into the hole through drill pipe or tubing.

(g) All open annuli shall be filled solid with cement to the surface.

1981.1. Exploratory Well Requirements (No Production Casing).

(a) Base of fresh waters-a minimum of 30 meters (about 100 feet) of cement straddling the interface or transition zone whether behind casing or uncased.

(b) Shoe plug (all casing, including conductor pipe)-straddle with 30 meters (about 100 feet) of cement.

(c) Where the well has been drilled with air, a bridge plug shall be placed at the shoe of the surface casing and the bridge plug shall be capped with at least 60 meters (about 200 feet) of cement.

(d) Surface plug-15 meters (about 50 feet) minimum. May be either neat cement or concrete mix.

1981.2. Cased Wells.

Cased exploratory, uncompleted development, former producing and injection wells.

(a) Geothermal zones—uncased or perforated. Cement plugs shall extend from the bottom of the zone or perforations to 30 meters (about 100 feet) over the top of the zone or perforations.

(b) Liners. Cement plugs shall be placed from 15 meters (about 50 feet) below to 15 meters (about 50 feet) above liner tops.

(c) Casing may be salvaged within protection, if first approved by the Division. A minimum overlap of 15 meters (about 50 feet) is required.

(d) Casing stubs and laps. Cement plugs shall be placed, if possible, from 15 meters (about 50 feet) below to 15 meters (about 50 feet) above top of casing. If unable to enter stub or lap, 30 meters (about 100 feet) of

cement shall be placed on the top of the stub or lap.

(e) Fish, collapsed pipe, etc. Cement plugs shall be squeezed, with the use of a retainer or bradenhead, with sufficient cement to fill across the production zone or perforations and to 30 meters (about 100 feet) above the zone or perforations.

(f) Base of fresh waters-a minimum of 30 meters (about 100 feet) of cement straddling the interface or transition zone, whether behind casing or uncased.

(g) Shoe plug (all casing, including conductor pipe)-straddle with 30 meters (about 100 feet) of cement.

(h) Where the well has been drilled with air, a bridge plug shall be placed at the shoe of the surface casing and the bridge plug shall be capped with at least 60 meters (about 200 feet) of cement.

(i) Surface plug-15 meters (about 50 feet) minimum. May be either neat cement or concrete mix.

Subchapter 5. Disclosure and Inspection of Public Records

Article 1. General

1995. Purpose.

The purpose of this subchapter is to set forth the rules and regulations governing the disclosure and inspection of well records on file with the Division of Oil, Gas, and Geothermal Resources as provided for in Sections 3234 and 3752, Division 3 of the Public Resources Code.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code; and Section 6253(a), Government Code. Reference: Sections 3234(a) and 3752, Public Resources Code.

1995.1. Policy.

The policy of the Division is to make all well records that are open to public inspection readily available to the public. Upon request by any person, identifiable public records shall be made available for inspection and copying as provided for in this subchapter.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(a) and 3752(a), Public Resources Code; and Sections 6256 and 6257, Government Code.

1995.2. Scope of Regulations.

These regulations shall apply to all records on file at every office of the Division of Oil, Gas, and Geothermal Resources as defined in Section 1996.1 of this subchapter.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234 and 3752, Public Resources Code.

Article 2. Definitions

1996. General.

The following words or terms used in this subchapter, unless otherwise defined, shall have the meaning ascribed to them in this article.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(a) and 3752(a), Public Resources Code.

1996.1. Records.

"**Records**" mean all of the well records filed pursuant to Division 3, Chapters 3 or 4 of the Public Resources Code, including production and injection reports of the wells of any owner or operator, except experimental logs, experimental tests, or interpretive data as defined in this article.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(a) and 3752(a), Public Resources Code.

1996.3. Experimental Log and Experimental Test.

"**Experimental log**" or "**experimental test**" means a log or test that is not generally available to all operators, or that is run to evaluate whether such log or test is an effective, workable, and valid engineering or geologic tool. A log or test that is not generally available to all operators is one that is not listed in the pricing schedules, nor offered as a routine service, by established logging companies.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(d) and 3752(c), Public Resources Code.

1996.4. Interpretive Data.

"**Interpretive data**" mean geologic and engineering data, from an owner or operator, that are derived from raw data by means of professional study and interpretation.

"Interpretive data" include, but are not limited to: geologic cross sections, subsurface contour maps, surface geologic maps, oil and gas reserve calculations, and paleontologic reports.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(d) and 3752(c), Public Resources Code.

1996.5. Offshore Well.

"**Offshore well**" as related to well records means a well that is identified by a specific API numbering system used to classify offshore wells.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Section 3234(a), Public Resources Code.

1996.6. Well.

"**Well**" means an original hole, or a subsequent deepening or redrilling thereof, carried out after completion of the original drilling operation. The records of all holes drilled during the course of a single drilling operation or shallow geothermal observation well program shall be considered as records of a single well for purposes of this subchapter.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(a) and 3752(a), Public Resources Code.

1996.7. Date of Cessation of Drilling Operations.

"**Date of cessation of drilling operations**" means the date on which any or all equipment or machinery necessary for carrying out a drilling operation is removed from the well site.

NOTE: Authority cited: Section 3013, Public Resources Code. Reference: Section 3234(e), Public Resources Code.

1996.8. Date of Abandonment.

"**Date of abandonment**" means the date on which, in the judgment of the Supervisor, the plugging for the purpose of abandonment is completed or virtually completed.

NOTE: Authority cited: Section 3712, Public Resources Code. Reference: Section 3752(a), Public Resources Code.

1996.9. Extenuating Circumstances.

"**Extenuating circumstances**" mean conditions, beyond the control of the owner or operator, which have prevented the owner or operator from utilizing the competitive advantage from the information obtained from a well. "Extenuating circumstances" include, but are not limited to, the following:

(a) Active competitive leasing or mineral rights sales in the immediate vicinity of the well;

(b) Governmental or judicial action delaying oil, gas, or geothermal development;

(c) Natural disasters; or

(d) Scarcity of materials and equipment.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(a) and 3752(a), Public Resources Code.

1996.10. Applicant.

"**Applicant**" means any person requesting permission to inspect and/or copy records on file with the Division of Oil, Gas, and Geothermal Resources.

NOTE: Authority cite: Sections 3013 and 3712, Public Resources Code. Reference: Section 6250, Government Code.

Article 3. Status Determination

1997. General.

All records filed with the Division of Oil, Gas, and Geothermal Resources, including records filed before July 1, 1976, are public records and are open for inspection and copying, except those records maintained in confidential status pursuant to Section 3234 or 3752, Division 3 of the Public Resources Code.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(a) and 3752(a), Public Resources Code.

1997.1. Request for Confidential Status.

(a) A request for confidential status pursuant to Section 3234 or 3752, Division 3, Public Resources Code, must be filed prior to or at the time the records subject to said request are filed, and shall not apply retrospectively to portions of a well record already on file with the Division for which confidential status had not been requested. Said request shall be made in writing to:

(1) The district deputy of the district in which the well is located, for an onshore oil or gas well (see map titled "Oil and Gas District Boundaries of the Division of Oil, Gas, and Geothermal Resources");

(2) The district geothermal office for a geothermal well (see map titled "Geothermal District Boundaries of the Division of Oil, Gas, and Geothermal Resources");

Such request shall be signed by a representative of the company.

(b) If the Supervisor fails to reply to a request for confidential status within twenty (20) working days from the date of receipt of such request, the request shall be deemed approved.

(c) Records that are the subject of a request for confidential status shall be retained in confidential status after receipt of the request until their status is determined by the Supervisor.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(a) and 3752(a), Public Resources Code.

1997.2. Request for Extension of Confidential Status.

(a) A request for extension of confidential status pursuant to Section 3234 or 3752, Division 3, Public Resources Code, shall be made in writing to the appropriate party, as indicated in Section 1997.1 of this article; shall document extenuating circumstances; and shall be signed by a representative of the company.

(b) If the Supervisor fails to reply to a request for extension of confidential status within twenty (20) working days from the date of receipt of such request, the request shall be deemed approved.

(c) Records that are the subject of a request for extension of confidential status shall be retained in confidential status after receipt of the request until their status is determined by the Supervisor.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(a) and 3752(a), Public Resources Code.

1997.3. Classification As Experimental Log or Experimental Test.

(a) The Supervisor shall not consider a log or test for classification as experimental unless the owner or operator requests that such log or test be classified as experimental at the time of filing of the log or test with the Division. Such request shall be made in writing to the appropriate party, as indicated in Section 1997.1 of this article; shall contain justification for the request; and shall be signed by a representative of the company.

(b) If the Supervisor fails to reply to a request for experimental status within twenty (20) working days from the date of receipt of such request, the request shall be deemed approved.

(c) A log or test that is the subject of a request for classification as experimental shall be retained in confidential status after receipt of the request until the Supervisor determines whether it is experimental.

(d) The Supervisor may review the experimental classification of logs and tests to determine if the classification remains appropriate. If technological advances or other factors indicate the experimental classification should be withdrawn, thus revoking confidential status, the Supervisor shall notify the operator of this decision. If no written appeal is made pursuant to section 1997.5 of this article, the Supervisor may open the log or test data to public review.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(d) and 3752(c), Public Resources Code.

1997.4. Classification As Interpretive Data.

(a) An owner or operator may request that certain data filed with the Division be classified as interpretive; however, in the absence of such request, the Supervisor may classify data as interpretive.

(b) A request for classification of data as interpretive must be made at the time of filing of the data with the Division. Such request shall be made in writing to the appropriate party, as indicated in Section 1997.1 of this article; shall contain justification for the request; and shall be signed by a representative of the company.

(c) If the Supervisor fails to reply to a request for interpretive status within twenty (20) working days from the date of receipt of such request, the request shall be deemed approved.

(d) Data that are the subject of a request for classification as interpretive shall be retained in confidential status after receipt of the request until the Supervisor determines whether they are interpretive.

(e) The Supervisor may review the confidential status of interpretive data after a period of five years. The data shall remain confidential unless the Supervisor demonstrates that the data does not warrant classification

as interpretive data. The Supervisor shall notify the operator of this decision. If no written appeal is made pursuant to section 1997.5 of this article, the Supervisor may open the interpretive data to public review.

NOTE: Authority cited: Sections 3013 and 3712, Public Resources Code. Reference: Sections 3234(d) and 3752(c), Public Resources Code.

1997.5 Appeal.

(a) An owner or operator may appeal to the Director of the Department of Conservation within thirty (30) days following notification of:

(1) the denial of a request for confidential status made pursuant to Section 1997.1 of this article, or

(2) the denial of a request for extension of confidential status under Section 1997.2 of this article or

(3) the denial of a request for, or the Supervisor's withdrawal of, classification as an experimental log or test, or interpretive data made pursuant to Section 1997.3 or 1997.4 of this article. Such appeal shall be made in writing, shall contain justification for the appeal, and shall be signed by the owner, operator or a representative of the company.

(b) All records that are the subject of a denial of a request for, or extension of, confidential status made pursuant to Section 1997.1 or 1997.2 of this article, or the subject of a denial of a request for, or withdrawal of, classification as an experimental log or test, or interpretive data made pursuant to Section 1997.3 or 1997.4 of this article shall be confidential for a period of thirty (30) days following notification of the denial or withdrawal to allow adequate time for the filing of an appeal. Records that are the subject of an appeal pursuant to this section shall be retained in confidential status pending the Director's decision on the appeal.

(c) If no written reply is made by the Director within thirty (30) days following the date of the appeal, the appeal shall be deemed denied and the records in question shall be public records.

NOTE: Authority cited: Section 6253(a), Government Code. Reference: Section 6253(a), Government Code.

Article 4. Disclosure Procedures

1998.2. Written Guidelines.

The Supervisor shall establish written guidelines for accessibility of public records consistent with these regulations. A copy of the guidelines shall be posted in a conspicuous public place at the offices of the Division and thereafter be available free of charge to any person.

REGULATION HISTORY, INCLUDING REPEALED REGULATIONS

Chapter 2. Implementation of the California Environmental Quality Act of 1970

Article 1. Definitions

1681. Scope of Regulations.

1. Repealer of Chapter 2 (Articles 1-9; Sections 1680-1695, not consecutive; Appendix A and B) and new Chapter 2 (Articles 1-3; Sections 1680-1682) filed 12-29-78 as an emergency; designated effective 1-1-79 (Register 78, No. 52). For prior history, see Registers 78, No. 14; 77, No. 14; and 73, No. 15.

2. Repealer of Chapter 2 (Articles 1-3, Sections 1680-1682) and new Chapter 2 (Articles 1-8, Sections 1681-1690.2, Appendix A) filed 8-27-79; effective thirtieth day thereafter (Register 79, No. 35).

3. *Repealer of Chapter 2 (Articles 1-8, Sections 1681-1690.2, not consecutive, and Appendix A) and new Chapter 2 (Articles 1-5, Sections 1681-1685, not consecutive) filed 9-21-82; effective thirtieth day thereafter (Register 82, No. 39).

4. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

*The reorganization of Chapter 2 is printed as a repealer and adoption for clarity.

1681.1. Decision Making Body.

1. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1681.2. Lead Agency.

1. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Repealer filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1681.3. Notice of Intent to Prepare Environmental Document.

1. Repealer filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1681.4. Geothermal Exploratory Project.

Article 2. General Responsibilities for Geothermal Projects

1682. Contents of a Geothermal Project Application.

1. Amendment of article heading, section heading and Note filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1682.1. Lead Agency CEQA Time Limits for Geothermal Projects.

1. Change without regulatory effect amending first paragraph filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Amendment of section heading, section and Note filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1682.2. Responsible Agency CEQA Time Limits.

1. Repealer filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1682.3. Delegation of Lead Agency Responsibilities for Geothermal Exploratory Projects.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

Article 3. Application of the Act to Geothermal Projects

1683. Federal Geothermal Project Coordination.

1. Amendment of article heading, section heading, section and Note filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1683.1. Consultation in Connection with a Geothermal Project.

1. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Amendment of section heading, section and Note filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1683.2. Geothermal Discretionary Projects.

1. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Amendment of section heading, section and Note filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1683.3. Procedures for Exempted Projects.

1. Change without regulatory effect amending subsection (b) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Repealer filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1683.5. Responsible Agency CEQA Time Limits.

1683.6. Delegation of Responsibilities for Geothermal Lead Agency.

1. Change without regulatory effect amending subsection (d) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Amendment of section heading, section and Note filed 10-18-2004; operative 11-17-2004 (Register 2004, No. 43).

1683.7. Delegation of Lead Agency Responsibilities for Geothermal Exploratory Projects.

1. Change without regulatory effect amending subsections (a) and (c) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

Article 4. Evaluating Projects

1684. Categorical Exemptions.

1. Change without regulatory effect amending second paragraph filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1684.1. Class 1: Existing Facilities.

1. Amendment filed 8-4-95; operative 9-3-95 (Register 95, No. 31).

1684.2. Class 4: Minor Alterations to Land.

Article 5. Evaluation of Environmental Impact Reports

1685. Adequate Time for Review and Comment.

Chapter 3. Selection of Professional Service Firms

1690. Selection of Professional Service Firms.

1. New Chapter 3 (sections 1690-1699) and section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending subsection (b) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1690.1. Definitions, as Used in These Regulations.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).

1691. Establishment of Criteria.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1692. Estimate of Value of Services.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1693. Request for Qualifications.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending subsections (a) and (c) filed 12- 26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1694. Selection of Firm.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1695. Negotiation.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1696. Amendments.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1697. Contracting in Phases.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1698. Division's Power to Require Bids.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.
2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1699. Exclusions.

1. New section filed 9-1-2000 as an emergency; operative 9-1-2000 (Register 2000, No. 35). A Certificate of Compliance must be transmitted to OAL by 1-2-2001 or emergency language will be repealed by operation of law on the following day.

2. Certificate of Compliance as to 9-1-2000 order transmitted to OAL 12-18-2000 and filed 2-1-2001 (Register 2001, No. 5).

Chapter 4. Development, Regulation, and Conservation of Oil and Gas Resources

Subchapter 1. Onshore Well Regulations

Article 1. General

1710. Purpose.

1. New Subchapter 1 (§§ 1710-1714, 1720, 1723, 1723.1-1723.8, 1724) of Chapter 4 filed 2-15-74; effective thirtieth day thereafter (Register 74, No. 7).
2. Repealer filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

1711. Policy.

1. Repealer filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

1712. Scope of Regulations.

1. Amendment filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1713. Revision of Regulations.

1. Repealer filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

1714. Approval of Well Operations.

1. Amendment filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. New NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Amendment of section heading, section and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
4. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
5. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1715. Other Requirements.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Repealer filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

Article 2. Definitions

1720. Definitions.

1. Amendment filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8).
2. Repealer of subsections (1)-(q), renumbering of subsections (r)-(t) to (l)-(n), and new subsection (o) filed 9-19-75 as an emergency; effective upon filing (Register 75, No. 38).
3. Certificate of Compliance filed 1-9-76 (Register 76, No. 2).
4. Amendment of subsection (a) and new subsections (p), (q), (r) and (s) filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).

5. New subsections (t) and (u) filed 2-28-80; effective thirtieth day thereafter (Register 80, No. 9).
6. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
7. Amendment of subsections (d), (f), (g) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
8. Change without regulatory effect amending subsection (a)(2)(D) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
9. Change without regulatory effect amending subsection (a)(2)(D) filed 12-26- 2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 2.1. Well Spacing Patterns-New Pools

1721. Objectives and Policy.
1. New Article 2.1 (Sections 1721, 1721.1-1721.7) filed 8-5-74; effective thirtieth day thereafter (Register 74, No. 32).
2. Amendment filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8).
3. Amendment filed 2-28-80; effective thirtieth day thereafter (Register 80, No. 9).
4. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
5. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.1. Set Back.
1. Repealer and new section filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8). For former history, see Register 74, No. 32.
2. Amendment of subsections (b)(2) and (b)(3) filed 4-4-75 as procedural and organizational; effective upon filing (Register 75, No. 14).
3. Repealer and new section filed 9-19-75 as an emergency; effective upon filing (Register 75, No. 38).
4. Certificate of Compliance filed 1-9-76 (Register 76, No. 2).
5. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

1721.1.1. Adoption of an Interim Well-Spacing Plan.
1. Repealer filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8).
2. New section filed 2-28-80; effective thirtieth day thereafter (Register 80, No. 9).
3. Repealer filed 5-23-88; operative 6-22-8 (Register 88, No. 22).

1721.1.2. Permanent Well Spacing.
1. Repealer filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8).

1721.1.3. Exploratory Well Drilling.
1. Repealer and new section filed 11-15-74 as an emergency; effective upon filing (Register 74, No. 46).
2. Repealer filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8).
3. Certificate of Compliance filed 3-14-75 as to the 11-15-74 filing (Register 75, No. 11).

1721.1.4. Slant Well Drilling.

1. Repealer filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8).

1721.2. Well Spacing Initiated by Supervisor.

1. Renumbering and amendment of former Section 1721.2 to 1721.3, and new Section 1721.2 filed 5-23-88, ; operative 6-22-88 (Register 88, No. 22). For history of former Section 1721.2 see Register 84, No. 52.

2. Editorial correction of subsection (c) (Register 95, No. 19).

3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.2.1. No New Drilling Pending Outcome of Petition.

1. New section filed 2-28-80; effective thirtieth day thereafter (Register 80, No. 9).

2. Renumbering and amendment of former Section 1721.2.1 to Section 1721.4 filed 5-23-88; operative 6-22-88 (Register 88, No. 22).

1721.3. Petition for Well Spacing.

1. Repealer of former Section 1721.3, and renumbering and amendment of former Section 1721.2 to Section 1721.3 filed 5-23-88; operative 6-22-88 (Register 88, No. 22). For history of former Section 1721.3, see Register 84, No. 52.

2. New subsection (a), subsection relettering, and amendment of newly designated subsections (c) and (j) filed 8-4-95; operative 9-3-95 (Register 95, No. 31).

3. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.3.1. Action on Petition for Well Spacing.

1. New section filed 5-23-88; operative 6-22-88 (Register 88, No. 22).

2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.4. No New Drilling or Reworking Pending Decision on Well Spacing.

1. Repealer of former Section 1721.4, and renumbering and amendment of former Section 1721.2.1 to Section 1721.4 filed 5-23-88; operative 6-22-88 (Register 88, No. 22). For history of former Section 1721.4, see Register 84, No. 52.

2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.5. Judicial Review of Order of Supervisor.

1. Repealer and new section filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8). For former history, see Register 74, No. 32.

2. Repealer and new section filed 9-19-75 as an emergency; effective upon filing (Register 75, No. 38).

3. Certificate of Compliance filed 1-9-76 (Register 76, No. 2).

4. Amendment of subsection (b) filed 1-9-76 as an emergency; effective upon filing Certificate of Compliance included (Register 76, No. 2).

5. Amendment filed 2-28-80; effective thirtieth day thereafter (Register 80, No. 9).
6. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
7. Amendment filed 5-23-88; operative 6-22-88 (Register 88, No. 22).
8. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.6. Revision or Repeal of Spacing Plan.

1. Repealer and new section filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8). For former history, see Register 74, No. 32.
2. Repealer and new section filed 9-19-75 as an emergency; effective upon filing (Register 75, No. 38).
3. Certificate of Compliance filed 1-9-76 (Register 76, No. 2).
4. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
5. Amendment filed 5-23-88; operative 6-22-88 (Register 88, No. 22).
6. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.7. Exceptions.

1. Repealer and new section filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8). For former history, see Register 74, No. 32.
2. Repealer and new section filed 9-19-75 as an emergency; effective upon filing (Register 75, No. 38).
3. Certificate of Compliance filed 1-9-76 (Register 76, No. 2).
4. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
5. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.8. Pooling.

1. New section filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8).
2. Repealer and new section filed 9-19-75 as an emergency; effective upon filing (Register 75, No. 38).
3. Certificate of Compliance filed 1-9-76 (Register 76, No. 2).
4. Amendment filed 2-28-80; effective thirtieth day thereafter (Register 80, No. 9).
5. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
6. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1721.9. Surveys.

1. New section filed 2-21-75; effective thirtieth day thereafter (Register 75, No. 8).
2. Repealer and new section filed 9-19-75 as an emergency; effective upon filing (Register 75, No. 38).
3. Certificate of Compliance filed 1-9-76 (Register 76, No. 2).

4. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
5. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 3. Requirements

1722. General.
1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Amendment of subsection (b) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
4. Change without regulatory effect amending subsections (d) and (j) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
5. Change without regulatory effect amending subsections (b) and (j) filed 2-16-2000 pursuant to section 100, title 1, California Code of Regulations (Register 2000, No. 7).
6. Amendment of subsection (j) filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).
7. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).
8. Amendment filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1722.1. Acquiring Right to Operate a Well.
1. Renumbering of Section 1722.1 to 1722.1.1, and new Section 1722.1 filed 2-28-80; effective thirtieth day thereafter (Register 80, No. 9).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Amendment of section heading and section filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).

1722.1.1. Well and Operator Identification.
1. New section filed 5-23-88; operative 6-22-88 (Register 88, No. 22). For prior history, see Register 84, No. 52.
2. Change without regulatory effect amending subsection (a) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Amendment of subsection (a) filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).
4. Change without regulatory effect amending subsection (b) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1722.2. Casing Program.
1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

1722.3. Casing Requirements.
1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment of section heading and NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Amendment of subsection (b) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
4. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1722.4. Cementing Casing.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Amendment of section and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
4. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1722.5. Blowout Prevention and Related Well Control Equipment.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
4. Change without regulatory effect amending section filed 2-16-2000 pursuant to section 100, title 1, California Code of Regulations (Register 2000, No. 7).
5. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1722.6. Drilling Fluid Program.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

1722.7. Directional Surveys.

1. New section filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1722.8. Life-of-Well and Life-of-Production Facility Bonding Requirements.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1722.8.1. Bonding Language.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1722.9. Spill Contingency Plan Requirements.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1723. Plugging and Abandonment—General Requirements.

1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. New NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Change without regulatory effect amending subsections (e) and (f) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
4. Amendment of subsection (a) and new subsection (g) filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).
5. Change without regulatory effect amending subsections (a) and (e) filed 12- 26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1723.1. Plugging of Oil or Gas Zones.

1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Change without regulatory effect amending subsection (c)(3) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
4. Amendment of subsections (c) (2)-(3), new subsection (c) (4) and amendment of subsection (d) filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).

1723.2. Plugging for Freshwater Protection.

1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Amendment of subsection (c) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).

1723.3. Plugging at a Casing Shoe.

1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

1723.4. Plugging at the Casing Stub.

1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. Amendment of section heading and new NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Repealer filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).

1723.5. Surface Plugging.

1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. Amendment filed 6-30-80; effective thirtieth day thereafter (Register 80, No. 27).
3. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
4. Amendment filed 7-22-98; effective thirtieth day thereafter (Register 98, No. 31-Z).
5. Amendment filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).
6. Change without regulatory effect amending last paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1723.6. Recovery of Casing.

1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. New NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Change without regulatory effect amending subsection (a) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1723.7. Inspection of Plugging and Abandonment Operations.

1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. Amendment of subsection (d)(1) filed 10-11-79; effective thirtieth day thereafter (Register 79, No. 41).
3. Amendment of subsections (a) and (h) filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
4. Change without regulatory effect amending subsection (h) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

5. Amendment of subsections (d) (2) and (f) filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).
6. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1723.8. Special Requirements.
1. Amendment filed 9-21-76; effective thirtieth day thereafter (Register 76, No. 39).
2. New NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. New subsection (c) filed 7-11-2006; operative 8-10-2006 (Register 2006, No. 28).
4. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1723.9 Testing of Idle Wells.
1. New section filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1724. Required Well Records.
1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7). For history of former section, see Register 76, No. 39.
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. New subsection (a)(4), subsection relettering, and amendment of newly designated subsections (a)(6)-(7) and (a)(9)-(10) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
4. Change without regulatory effect amending subsection (c) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
5. Change without regulatory effect amending subsection (c) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1724.1. Records to Be Filed with the Division.
1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
4. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1724.2. Maintenance of Production Facilities, Safety Systems, and Equipment.
1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).
3. Amendment of section heading, section and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
4. Repealer filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1724.3. Well Safety Devices for Critical Wells.
1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

3. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1724.4. Testing and Inspection of Safety Devices.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).

2. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

3. Change without regulatory effect amending subsections (b)-(d) filed 12-26- 2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1724.5. Surface Disposal of Waste Water.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).

2. Repealer filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

1724.6. Approval of Underground Injection and Disposal Projects.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).

2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1724.7. Project Data Requirements.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).

2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

3. Change without regulatory effect amending subsections (a)(4)-(5) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1724.8. Data Required for Cyclic Steam Injection Project Approval.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).

2. Amendment filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1724.9. Gas Storage Projects.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).

2. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

3. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1724.10. Filing, Notification, Operating, and Testing Requirements for Underground Injection Projects.

1. New section filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).

2. Amendment filed 6-30-80; effective thirtieth day thereafter (Register 80, No. 27).

3. Editorial correction of NOTE filed 12-28-84; effective thirtieth day thereafter (Register 84, No. 52).

4. Amendment of subsection (j), new subsections (j)(1)-(4) and amendment of Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).

5. Change without regulatory effect amending subsection (i) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
6. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Subchapter 1.1. Offshore Well Regulations

Article 1. General

1740. Purpose.
1. New Subchapter 1.1 (§§ 1740, 1740.1-1740.5, 1741-1744, 1744.1-1744.6, 1745, 1745.1-1745.10, 1746, 1747, 1747.1-1747.10, 1748, 1748.1-1748.3, 1749) filed 4-22-74; effective thirtieth day thereafter (Register 74, No. 17).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1740.1. Policy.
1. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1740.2. Scope of Regulations.

1740.3. Revision of Regulations.
1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1740.4. Incorporation by Reference.

1740.5. Approval.
1. Amendment filed 4-1-76; effective thirtieth day thereafter (Register 76, No. 14).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 2. Definitions

1741. Definitions.
1. Amendment of subsection (a) and repealer of subsection (g) filed 2-13-81 as procedural and organizational; effective upon filing (Register 81, No. 7).
2. Change without regulatory effect amending subsection (b) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending subsection (e) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 3. Regulations

1742. Well Identification.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1743. General Requirements.

1. Amendment of subsection (k) filed 4-1-76; effective thirtieth day thereafter (Register 76, No. 14).
2. Amendment of subsection (i) filed 2-13-81 as procedural and organizational; effective upon filing (Register 81, No. 7).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1744. Drilling Regulations.

1. Amendment filed 4-1-76; effective thirtieth day thereafter (Register 76, No. 14).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1744.1. Casing Program.

1744.2. Description of Casing Strings.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1744.3. Cementing Casing.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1744.4. Pressure Testing.

1. Change without regulatory effect amending last paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1744.5. Blowout Prevention and Related Well-Control Equipment.

1. Amendment filed 8-3-79 as procedural and organizational; effective thirtieth day thereafter (Register 79, No. 31).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1744.6. Drilling Fluid Program—General.

1. Change without regulatory effect amending subsection (c) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1745. Plugging and Abandonment.

1. Amendment filed 4-1-76; effective thirtieth day thereafter (Register 76, No. 14).
2. Change without regulatory effect amending first paragraph filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1745.1. Permanent Plugging and Abandonment.

1. Amendment of subsection (a) and (d) filed 4-1-76; effective thirtieth day thereafter (Register 76, No. 14). 2. Change without regulatory effect amending section heading and subsection (b) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1745.2. Junk in Hole or Collapsed Casing.

1745.3. Plugging of Casing Stubs.

1. Amendment filed 4-1-76; effective thirtieth day thereafter (Register 76, No. 14).

1745.4. Plugging of Annular Space.

1745.5. Surface Plug Requirement.

1745.6. Testing of Plugs.

1745.7. Mud.

1745.8. Clearance of Location.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1745.9. Temporary Abandonments.

1. Amendment filed 4-1-76; effective thirtieth day thereafter (Register 76, No. 14).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1745.10. Witnessing of Operations.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1746. Well Records.

1. Repealer of subsections (c) and (d) filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).

1746.1. Filing Records.

1. New section filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).

1746.2. Records of Wellsite.

1. New section filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).

2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1747. Safety and Pollution Control.

1. Amendment of subsection (c) filed 2-13-81 as procedural and organizational; effective upon filing (Register 81, No. 7).

2. Change without regulatory effect amending subsections (a), (c) and (e) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1747.1. Safety and Pollution Control Equipment Requirements.

1. Change without regulatory effect amending subsection (a)(4) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1747.2. Safety Devices.

1. Change without regulatory effect amending subsection (i) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1747.3. Containment.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1747.4. Emergency Power.

1747.5. Fire Protection.

1. Amendment filed 2-13-81 as procedural and organizational; effective upon filing (Register 81, No. 7).

2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1747.6. Detection System.

1747.7. Installation Application.

1. Amendment filed 2-13-81 as procedural and organizational; effective upon filing (Register 81, No. 7).

2. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1747.8. Diagram.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1747.9. Electrical Equipment Installation.

1747.10. Testing and Inspection.

1. Amendment filed 2-13-81 as procedural and organizational; effective upon filing (Register 81, No. 7).

2. Change without regulatory effect amending subsections (a) and (b) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1748. Waste Disposal and Injection Projects.

1748.1. Waste Disposal.

1748.2. Injection Projects.

1. Amendment of subsections (c)-(c)(2), (c)(5) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).

2. Change without regulatory effect amending subsection (d)(3) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

3. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1748.3. Injection Requirements.

1. Change without regulatory effect amending subsection (a) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1749. Cooperative Agreements.

1. Repealer filed 2-13-81 as procedural and organizational; effective upon filing (Register 81, No. 7).

Subchapter 2. Environmental Protection

Article 1. General

1750. Purpose.

1. New Subchapter 2 (§§ 1750-1753, 1760, 1770-1780) of Chapter 4 filed 2-15-74; effective thirtieth day thereafter (Register 74, No. 7).

2. Amendment of NOTE filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

3. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1751. Policy.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

1752. Scope of Regulations.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

1753. Revision of Regulations.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

Article 2. Definitions

1760. Definitions.

1. Amendment filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
2. Amendment of subsection (f) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
3. New subsections (b), (d)-(f), (h) and (k) and subsection relettering filed 7-22-98; operative 8-21-98 (Register 98, No. 30).
4. Change without regulatory effect amending subsection (a) filed 2-16-2000 pursuant to section 100, title 1, California Code of Regulations (Register 2000, No. 7).
5. Change without regulatory effect amending subsections (b) and (d)(4) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).
6. Amendment filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

Article 3. Requirements

1770. Oilfield Sumps.

1. Amendment filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
2. Amendment filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1770.1. Oil Sumps of Immediate Danger to Wildlife.

1. New Sections 1770.1-1770.5 filed 8-5-74; effective thirtieth day thereafter (Register 74, No. 32).
2. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

1770.2. Oil Sumps Hazardous to Wildlife.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

1770.3. Compliance.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

1770.4. Appeal.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

1770.5. Injunction.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

1771. Channels.

1. New NOTE filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1772. Program to Eliminate Improper Sumps.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

1773. Production Facilities Containment, Maintenance, and Testing.

1. Amendment of subsection (c) filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
2. Amendment of section and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
3. Change without regulatory effect amending subsections (a)(1)-(3) designators filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
4. Amendment filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1773.1 Production Facility Secondary Containment.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1773.2 Tank Construction and Leak Detection.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1773.3 Tank Maintenance and Inspections.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1773.4 Tank Testing and Minimum Wall Thickness Requirements.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1773.5 Out-of-Service Production Facility Requirements.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1774. Pipeline Construction and Maintenance.

1. Amendment filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
2. Amendment of subsection (b), new subsections (c)-(d), and amendment of newly designated subsections (e)-(f) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
3. Change without regulatory effect amending subsection (d) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
4. Amendment filed 7-22-98; operative 8-21-98 (Register 98, No. 30).
5. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).
6. Amendment filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1774.1 Pipeline Inspection and Testing.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1774.2 Pipeline Management Plans.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1775. Oilfield Wastes and Refuse.

1. Amendment filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
2. Amendment of subsection (c) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).

1776. Well Site and Lease Restoration.

1. Amendment filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 6-30-80; effective thirtieth day thereafter (Register 80, No. 27).
3. Amendment filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
4. Amendment of subsections (a)-(c), new subsections (e)-(f) and amendment of newly designated subsection (g) and Note filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
5. Change without regulatory effect amending subsection (e) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
6. Change without regulatory effect amending subsections (e) and (g) filed 12- 26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1777. Maintenance and Monitoring of Production Facilities, Safety Systems, and Equipment.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53). For prior history, see Register 82, No. 43.

1777.1 Production Facility Inspection Frequency.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1777.2 Production Facility Reporting Requirements.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1777.3 Production Facility Documentation Retention Requirments.

1. New section filed 12-30-10; operative 1-29-2011 (Register 2010, No. 53).

1778. Enclosure Specifications.

1. Amendment filed 2-17-78; effective thirtieth day thereafter (Register 78, No. 7).
2. Amendment filed 6-19-78; effective thirtieth day thereafter (Register 78, No. 25).
3. Amendment filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
4. Change without regulatory effect amending subsection (e) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1779. Special Requirements.

1. New NOTE filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1780. Other Regulatory Agencies.

1. Repealer filed 10-21-82; effective thirtieth day thereafter (Register 82, No. 43).

Subchapter 2.1. Methane Gas Hazards Reduction Assistance

1790. Purpose.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.
2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).

1791. Definitions.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.
2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).

1792. Amount of Financial Assistance Available.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.
2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).

1793. Application and Award Procedures.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.
2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).

1794. Preapplication Criteria.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.
2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).

1795. Preapplication Review.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.
2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).

1796. Final Application Requirements.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.
2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).

1797. Fiscal Requirements for Grants.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.
2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).

1798. General Information.

1. New section filed 8-4-88 as an emergency; operative 8-4-88 (Register 88, No. 32). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 12-2-88.

2. Certificate of Compliance transmitted to OAL 11-10-88 and filed 12-1-88 (Register 88, No. 52).
3. Change without regulatory effect amending subsection (a) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
4. Change without regulatory effect amending subsection (a) filed 2-16-2000 pursuant to section 100, title 1, California Code of Regulations (Register 2000, No. 7).

Subchapter 3. Unit Operations

Article 1. General

1810. Purpose.
1. New Chapter 4 §§ 1810, 1811, 1820, 1821, 1830-1832, 1840-1845, 1850-1858, 1860-1869, 1870-1877, 1880-1883) filed 5-24-72; effective thirtieth day thereafter (Register 72, No. 22).
2. Renumbering of Subchapter 2 to Subchapter 3 of Chapter 4 filed 2-15-74; effective thirtieth day thereafter (Register 74, No. 7).

1811. Policy.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

Article 2. Definitions and Standards

1820. Definitions.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1821. Standards.
1. New NOTE filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending subsection (e) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 3. Fees and Costs

1830. Fees.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1831. Costs.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1832. Failure to Pay.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 4. Preliminary Submission

1. Repealer of Article 4 (Sections 1840-1845) filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

Article 5. Petitions

1850. Requests for Action.
1. Repealer and new section filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending subsection (a) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1851. Persons Who May File a Petition.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1852. Filing of Petitions.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1853. Contents of Petition Requesting Approval of Unit Agreement.
1. Repealer and new section filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1854. Contents of Petition Requesting Approval of Modification of Unit Agreement.
1. Repealer and new section filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1855. Contents of Petition Requesting Approval of Additions to Unit Area.
1. Repealer and new section filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1856. Resolution of Disagreement over Unit Operations.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1857. Determination of Inability to Meet Financial Obligations.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending first paragraph and subsection (b) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1858. Additional Data.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 6. Hearings

1860. Types of Hearings.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1861. Public Hearings.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1862. Informal Hearings.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1863. Time and Place for Public Hearings.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending subsection (a) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1864. Notice.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1865. Hearing Procedures.
1. Repealer and new section filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending subsections (b) and (c) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending subsection (b) filed 2-16-2000 pursuant to section 100, title 1, California Code of Regulations (Register 2000, No. 7).
4. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1866. Hearing Officer.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1867. Evidence.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1868. Continuances.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1869. Record.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

Article 7. Orders of the Supervisor

1. Repealer of Article 7 (Sections 1870-1877) filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

Article 8. Offers to Sell

1880. General.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

1881. Notice of Offer to Sell.
1. Amendment filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending subsection (b) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1881.5. Notice of Intention to Purchase.
1. New section filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1882. Disagreements as to Price.
1. Repealer and new section filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).
2. Change without regulatory effect amending subsections (b), (c), (c)(3), (d) and (e) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1883. Final Orders of the Supervisor.
1. Repealer filed 10-7-82; effective thirtieth day thereafter (Register 82, No. 41).

Subchapter 4. Statewide Geothermal Regulations

Article 1. General

1900. Purpose.
1. New Subchapter 4 (§§ 1900 through 1993, not consecutive) filed 5-15-74; effective thirtieth day thereafter (Register 74, No. 20).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1910. Policy.
1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1911. Scope of Regulations.

1912. Revision of Regulations.
1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1913. Incorporation by Reference.
1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1914. Approval.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1915. Legal Conflicts.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

Article 2. Definitions

1920. Legal Definitions.

1. Amendment of subsection (a) filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).
2. Amendment of subsections (e)-(k) filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
3. Repealer of subsection (a), subsection relettering and amendment of NOTE filed 7-1-96; operative 7-31-96 (Register 96. No. 27).
4. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1920.1. Definitions.

1. Amendment of subsections (b) and (e), and new subsections (p) and (q) filed 9-19-75 as an emergency; effective upon filing. Certificate of Compliance included (Register 75, No. 38).
2. Amendment of subsection (p) and repealer of subsection (q) filed 4-13-76; effective thirtieth day thereafter (Register 76, No. 16).
3. Amendment filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).
4. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
5. Amendment filed 1-14-85; effective upon filing pursuant to Government Code Section 11346.2(d) (Register 85, No. 3).
6. Change without regulatory effect amending section heading, repealing first paragraph, and amending subsections (l) and (s) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
7. Change without regulatory effect amending subsections (d), (h), (k), (n)(4)- (5) and (s) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1920.2. Field Designation.

1. New section filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1920.3. Field Rules.

1. New section filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1921. Duties of the Supervisor.

1. Repealer filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).

1921.1. Duties of the Geothermal Resources Board.

1. Repealer of section filed 7-1-96; operative 7-31-96 (Register 96, No. 27).

Article 3. Drilling

1930. General.

1930.1. Designation of Agent.

1. Repealer filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).

1931. Notice of Intention to Drill.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Amendment of opening paragraph, repealer of subsections (a)-(j), subsection relettering and amendment of NOTE filed 7-1-96; operative 7-31-96 (Register 96, No. 27).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1931.1. Rework/Supplementary Notice.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending first paragraph filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1931.2. Notice to Convert to Injection.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1931.3. Notices to Drill Individual Shallow Observation Wells and Notices to Drill Shallow Observation Well Programs Are Required.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1931.4. Supplementary Notice.

1. Repealer filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33). For former history, see Register 74, No. 20.

1931.5. Unstable Terrain.

1. Amendment filed 4-13-76; effective thirtieth day thereafter (Register 76, No. 16).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1932. Fees.

1. Amendment filed 9-19-75 as an emergency; effective upon filing. Certificate of Compliance included (Register 75, No. 38).
2. Amendment filed 4-13-76; effective thirtieth day thereafter (Register 76, No. 16).
3. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
4. Amendment of subsection (a), repealer of subsection (a)(2), and amendment of subsection (b)(1) and NOTE filed 7-1-96; operative 7-31-96 (Register 96, No. 27).
5. Change without regulatory effect amending subsections (a)-(a)(1) and (b)(1) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
6. Change without regulatory effect amending subsection (e) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1933. Statewide Fee-Assessment Date.

1. New section filed 1-14-85; effective upon filing pursuant to Government Code Section 11346.2(d) (Register 85, No. 3). For prior history, see Register 76, No. 49.

1933.1. Establishment of Annual Well Fees.

1. New section filed 1-14-85; effective upon filing pursuant to Government Code Section 11346.2(d) (Register 85, No. 3).
2. Change without regulatory effect amending subsection (e)(2) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1933.2. Notification of Assessment.

1. New section filed 1-14-85; effective upon filing pursuant to Government Code Section 11346.2(d) (Register 85, No. 3)
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1933.3. Establishment and Certification of Assessment Roll.

1. New section filed 1-14-85; effective upon filing pursuant to Government Code Section 11346.2(d) (Register 85, No. 3).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1933.4. Payments and Penalties.

1. New section filed 5-23-88; operative 6-22-88 (Register 88, No. 22).

1934. Well Spacing.

1. Repealer filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33). For former history, see Register 74, No. 20.

1934.1. Violation of Spacing.

1. Repealer filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).

1935. Casing Requirements.

1. Change without regulatory effect amending second paragraph filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1935.1. Conductor Pipe.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Editorial correction of Note (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1935.2. Surface Casing.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending first paragraph and subsections (a)(2)-(3) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1935.3. Intermediate Casing.

1935.4. Production Casing.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).

1936. Electric Logging.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1937. Records.

1. Amendment filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).
2. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending subsections (d)-(f) filed 12-26- 2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1937.1. Records Required to Be Filed with the Division.

1. Amendment of subsections (d), (e) and (f) filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).
2. Change without regulatory effect amending subsection (b) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending subsections (d)-(f) filed 12-26- 2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1937.2. Filing of Records.

1. Repealer filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).

1937.3. Records As Evidence.

1. Repealer filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).

1937.4. Publications.

1. Repealer filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).

1938. Transfer of Property.

1. Repealer filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).

Article 4. Blowout Prevention

1940. Authority.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1941. General.

1. Change without regulatory effect amending last paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1942. BOPE Guide.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1942.1. Unstable Areas.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending subsection (a) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending first paragraph and subsection (a) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1942.2. Cable Tool Drilling.

1. Repealer and new section filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33). For prior history, see Register 74, No. 20.
2. Change without regulatory effect amending first paragraph filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1942.3. Stable Areas Using Air As the Drilling Fluid.

1. Repealer filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33). For former history, see Register 74, No. 20.

1942.4. Cable Tool Drilling.

1. Repealer filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33). For former history, see Register 74, No. 20.

Article 5. Completion and Production

1950. Official Completion.

1. Amendment filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).
2. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).

1950.1. Time Limits.

1. New section filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1951. Production Reports.

1. Repealer filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).

1952. Maintenance.

1953. Corrosion.

1954. Tests.

1. Change without regulatory effect amending subsection (a) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
2. Change without regulatory effect amending subsections (a) and (b)(3)(D) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1954.1. Right of Entry.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

Article 6. Injection

1960. Definition.

1. Editorial correction of article heading (Register 98, No. 4).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1961. Projects.

1. Change without regulatory effect amending subsection (e) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1962. Project Approval.

1. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1963. Notice to Drill New Well or Convert Existing Well.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1964. Subsequent Work.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).

1965. Injection Reports.

1. Repealer filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).

1966. Surveillance.

1. Amendment filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).
2. Change without regulatory effect amending subsection (c) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1967. Abandonment.

1. Amendment filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).
2. Repealer filed 8-16-79; effective thirtieth day thereafter (Register 79, No. 33).

Article 7. Subsidence

1970. Responsibility.

1. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1971. Imperial Valley Subsidence Regulations.

1. Amendment of subsection (b)(1) filed 8-13-76 as procedural and organizational; effective upon filing (Register 76, No. 33).
2. Change without regulatory effect amending subsections (a)(5) and (a)(8) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).
3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 8. Plugging and Abandonment

1980. Objectives.

1. Change without regulatory effect amending article 8 heading filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1981. General Requirements.

1. Amendment of subsection (b) filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).

2. Change without regulatory effect amending subsections (a)-(d) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

3. Change without regulatory effect amending first paragraph and subsections (c)-(e) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1981.1. Exploratory Well Requirements (No Production Casing).

1981.2. Cased Wells.

1. Change without regulatory effect amending subsections (b) and (d) filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Change without regulatory effect amending subsection (c) filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1982. Abandonment of Deserted Well.

1. Repealer filed 12-3-76 as procedural and organizational; effective upon filing (Register 76, No. 49).

Article 9. Complaints and Appeals

1990. Complaints.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1991. Filing Appeals.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1992. Appeal Hearing.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1993. Review of Hearing Decision.

1. Change without regulatory effect repealing section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

Subchapter 5. Disclosure and Inspection of Public Records

Article 1. General

1995. Purpose.

1. New Subchapter 5 (Sections 1995, 1995.1-1995.3, 1996, 1996.1-1996.10, 1997, 1997.1-1997.5, 1998, 1998.1, 1998.2) filed 5-28-76; designated effective 7-1-76 (Register 76, No. 22).
2. Amendment of NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
3. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1995.1. Policy.

1. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
2. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1995.2. Scope of Regulations.

1. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1995.3. Effective Date.

1. Repealer filed 9-27-76 as an emergency; effective upon filing (Register 76, No.40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).

Article 2. Definitions

1996. General.

1. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.1. Records.

1. Amendment filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.2. Confidential Status.

1. Amendment filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. Repealer filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.3. Experimental Log and Experimental Test.

1. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.4. Interpretive Data.

1. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.5. Offshore Well.

1. Amendment filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.6. Well.

1. Repealer and new section filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. Amendment filed 12-3-76 as an emergency; effective upon filing. Certificate of Compliance included (Register 76, No. 49).
4. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.7. Date of Cessation of Drilling Operations.

1. Repealer and new section filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.8. Date of Abandonment.

1. Repealer and new section filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
4. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1996.9. Extenuating Circumstances.

1. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1996.10. Applicant.

1. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
2. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

Article 3. Status Determination

1997. General.

1. Amendment filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
4. Change without regulatory effect amending section filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

1997.1. Request for Confidential Status.

1. Amendment filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).

3. Amendment of subsection (a) filed 12-3-76 as an emergency; effective upon filing. Certificate of Compliance included (Register 76, No. 49).
4. Amendment of subsection (a) filed 2-13-81 as procedural and organizational; effective upon fil ing (Register 81, No. 7).
5. Amendment of NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
6. Change without regulatory effect amending subsections (a)(1)-(3) filed 9-3-96 pursuant to sec tion 100, title 1, California Code of Regulations (Register 96, No. 36).
7. Change without regulatory effect repealing and adopting new Maps 1 and 2 filed 4-8-98 pursu ant to section 100, title 1, California Code of Regulations (Register 98, No. 15).
8. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1997.2. Request for Extension of Confidential Status.
1. Amendment filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
4. Change without regulatory effect amending subsections (b)-(c) filed 12-26- 2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1997.3. Classification As Experimental Log or Experimental Test.
1. Amendment filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. Amendment of subsection (a) filed 12-3-76 as an emergency; effective upon filing. Certificate of Compliance included (Register 76, No. 49).
4. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
5. New subsection (d) filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
6. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1997.4. Classification As Interpretive Data.
1. Amendment filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. Amendment of subsections (a) and (b) filed 12-3-76 as an emergency; effective upon filing.Cer tificate of Compliance included (Register 76, No. 49).
4. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
5. New subsection (e) filed 8-4-95; operative 9-3-95 (Register 95, No. 31).
6. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

1997.5. Appeal.
1. Amendment filed 9-27-76 as an emergency; effective upon filing (Register 76, No. 40).
2. Certificate of Compliance filed 12-3-76 (Register 76, No. 49).
3. New NOTE filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).
4. Amendment of subsections (a)-(b), including designation of subsections (a)(1)-(3) filed 8-4-95; operative 9-3-95 (Register 95, No. 31).

5. Change without regulatory effect amending subsection (a)(3) filed 12-26-2006 pursuant to sec tion 100, title 1, California Code of Regulations (Register 2006, No. 52).

Article 4. Disclosure Procedures

1998. Request to Inspect and/or Copy Records.

1. Amendment of subsection (a) filed 6-19-79; effective thirtieth day thereafter (Register 79, No. 25).

2. Amendment of subsection (a) filed 2-13-81 as procedural and organizational; effective upon filing (Register 81, No. 7).

3. Repealer filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1998.1. Inspection and Copying of Records.

1. Repealer filed 1-18-82; effective thirtieth day thereafter (Register 82, No. 4).

1998.2. Written Guidelines.

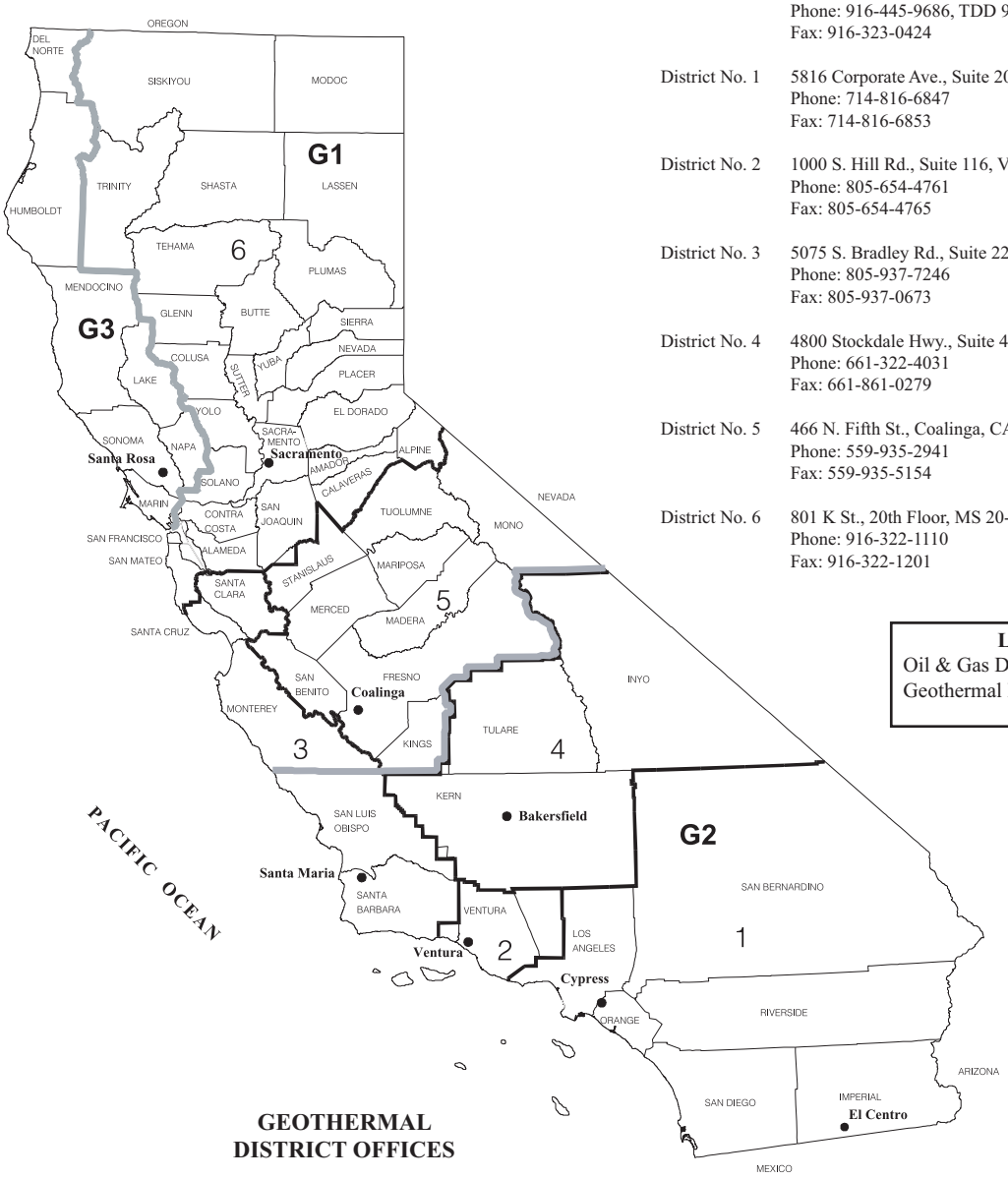
1. Change without regulatory effect amending " Geothermal District Boundaries and Offices" maps filed 9-3-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 36).

2. Change without regulatory effect repealing and adopting new Maps 1 and 2 filed 4-8-98 pursu ant to section 100, title 1, California Code of Regulations (Register 98, No. 15).

3. Change without regulatory effect amending section filed 12-26-2006 pursuant to section 100, title 1, California Code of Regulations (Register 2006, No. 52).

OIL AND GAS DISTRICT OFFICES

Headquarters	801 K St., MS 20-20, Sacramento, CA 95814-3530 Phone: 916-445-9686, TDD 916-324-2555 Fax: 916-323-0424
District No. 1	5816 Corporate Ave., Suite 200, Cypress, CA 90630-4731 Phone: 714-816-6847 Fax: 714-816-6853
District No. 2	1000 S. Hill Rd., Suite 116, Ventura, CA 93003-4458 Phone: 805-654-4761 Fax: 805-654-4765
District No. 3	5075 S. Bradley Rd., Suite 221, Santa Maria, CA 93455 Phone: 805-937-7246 Fax: 805-937-0673
District No. 4	4800 Stockdale Hwy., Suite 417, Bakersfield, CA 93309 Phone: 661-322-4031 Fax: 661-861-0279
District No. 5	466 N. Fifth St., Coalinga, CA 93210 Phone: 559-935-2941 Fax: 559-935-5154
District No. 6	801 K St., 20th Floor, MS 20-22, Sacramento, CA 95814-3530 Phone: 916-322-1110 Fax: 916-322-1201



LEGEND
Oil & Gas Districts
Geothermal Districts

GEOTHERMAL DISTRICT OFFICES

Headquarters & District No. G1	801 K St., 20th Floor, MS 20-21, Sacramento, CA 95814-3530 Phone: 916-323-1788 Fax: 916-323-0424
District No. G2	1699 W. Main, Suite E, El Centro, CA 92243-2235 Phone: 760-353-9900 Fax: 760-353-9594
District No. G3	50 D St., Room 300, Santa Rosa, CA 95404-4770 Phone: 707-576-2385 Fax: 707-576-2611

PRC04 (1/11)

ARTICLE 1. - THE ORANGE COUNTY OIL CODE

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ARTICLE 1. - THE ORANGE COUNTY OIL CODE

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Sec. 7-8-51. - Enforcement.

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Sec. 7-8-1. - Title—Reference to code.

This division shall be known and may be cited as "The Orange County Oil Code." Code as referred to in this division, unless the context clearly indicates otherwise, shall mean the Orange County Oil Code.

(Code 1961, § 77.011)

Sec. 7-8-2. - Purpose.

(a) It is the intent of this code to regulate the exploration and drilling for and the production of petroleum so that this activity may be conducted in harmony with other uses of land within this County, thus protecting the people of the County of Orange in the enjoyment and use of their property and providing for their comfort, health, safety and general welfare.

(b) It is further the intent of the County Board of Supervisors that petroleum operations shall be permitted in all districts within this County subject to the application of this code, the requirements of which have been carefully designed for the fulfillment of the intent expressed in (a) above.

(c) The provisions of this code shall not apply to landfill gas recovery operations.

(Code 1961, § 77.012; Ord. No. 2613, § 1, 8-2-72; Ord. No. 3402, § 6, 7-27-83)

Sec. 7-8-3. - Definitions.

The following terms as used in this code shall, unless the context clearly indicates otherwise, have the respective meanings herein set forth in sections 7-8-4 through 7-8-26.

(Code 1961, § 77.013; Ord. No. 2613, § 1, 8-2-72)

Sec. 7-8-4. - Definitions (A).

Abandonment is the restoration of the drill site as required by these regulations.

A.N.S.I. is the American National Standards Institute.

A.P.I. is the American Petroleum Institute.

Approved. Approved by the Director. "Approved type" or "approved design" is and includes improvements, equipment or facilities of a type or design approved by the Director.

A.S.M.E. is the American Society of Mechanical Engineers.

(Ord. No. 2613, § 2, 8-2-72; Ord. No. 3385, § 1, 5-17-83)

Sec. 7-8-5. - Definitions (B).

Blowout is the uncontrolled discharge of gas, liquids or solids or a mixture thereof from a well into the atmosphere.

Blowout preventer is a mechanical, hydraulic or pneumatic or other device or a combination of such devices secured to the top of a well casing, including valves, fittings and control mechanisms connected therewith designed and capable of preventing a blowout.

(Ord. No. 2613, § 2, 8-2-72)

Sec. 7-8-6. - Definitions (C).

Cellar is an excavation around or above the top joint of the casing in a well.

Completion of drilling: A well is completed, for the purpose of these regulations, thirty (30) days after the drilling crew has been released, unless drilling or remedial operations are resumed before the end of the thirty (30) days.

(Ord. No. 2613, § 2, 8-2-72)

Sec. 7-8-7. - Definitions (D).

Derrick is any framework, tower or mast together with all parts of an appurtenance to such structure, including any foundations, pump house, pipe racks, and each and every part thereof, which is or are required, or used or useful for the drilling for and the production of oil, gas or other hydrocarbons from the earth except tanks used for storage purposes.

Desertion is the cessation of operations at a drill site without compliance with the provisions of the code relating to suspended operations or abandonment.

Diligence, as used in these regulations, shall mean that the drilling derrick is in its operating position over the well, properly anchored and supported and that an operating crew is on duty at the drill site at all reasonable times.

Director shall mean and include the Director of the Environmental Management Agency of the County of Orange, his assistants, deputies, inspectors and officers of the Environmental Management Agency of the County of Orange.

Division of Oil and Gas shall mean the Division of Oil and Gas of the Department of Natural Resources of the State of California or any other state agency that may in the future be charged with its responsibilities.

Drilling means digging a hole in earth formation with a power-driven drill bit for the purpose of exploring for or developing of oil or gas. "Drilling" includes those operations that are concerned with the completion of a well. "Drilling" does not include "shot hole."

Drill site is the premises used during the drilling and subsequent life of a well or wells, which is necessary for the safe operations thereof.

(Ord. No. 2613, § 2, 8-2-72; Ord. No. 3385, § 2, 5-17-83)

Secs. 7-8-8, 7-8-9. - Reserved.

Sec. 7-8-10. - Definitions (G).

Gas means the gaseous components or vapors occurring in or derived from petroleum or natural gas.

(Ord. No. 2613, § 2, 8-2-72)

Secs. 7-8-11—7-8-14. - Reserved.

Sec. 7-8-15. - Definitions (L).

Lessee is the possessor the right to exploit the premises for minerals.

Lessor is the mineral right owner.

(Ord. No. 2613, § 2, 8-2-72)

Sec. 7-8-16. - Definitions (M).

Maintenance means and includes the repair and replacement of parts of a structure where same does not alter or lessen the strength or stability of the structure.

(Ord. No. 2613, § 2, 8-2-72)

Sec. 7-8-17. - Definitions (N).

Natural gasoline plant or *absorption plant* is a plant for the processing of natural gas from the production wells and processed into its various components.

(Ord. No. 2613, § 2, 8-2-72)

Sec. 7-8-18. - Definitions (O).

Oil includes petroleum, and *petroleum* includes oil.

Operator is the person, whether proprietor, lessee or independent contractor, actually in charge and in control of the drilling, maintenance, operation or pumping of a well or lease.

Outer boundary line: Where several contiguous parcels of land in one or different ownerships are operated as a single oil or gas lease or operating unit, the term "outer boundary line" means the exterior limits of the land included in the lease or unit. In determining the contiguity of any such parcels of land, no street, road or alley lying within the lease or unit shall be deemed to interrupt such contiguity.

Owner is a person who owns a legal or equitable title in and to the surfaces of the drill site.

(Ord. No. 2613, § 2, 8-2-72)

Sec. 7-8-19. - Definitions (P).

Person includes any individual, firm, association, corporation, joint venture or any other group or combination acting as a unit.

(Ord. No. 2613, § 2, 8-2-72)

Sec. 7-8-20. - Reserved.

Sec. 7-8-21. - Definitions (R).

Redrilling shall mean the deepening of an existing oilwell or otherwise drilling beyond the extremities of the existing well casing. The provisions of this code relating to drilling shall be equally applicable to redrilling.

(Ord. No. 2613, § 2, 8-2-72)

Sec. 7-8-22. - Definitions (S).

Seismic petroleum prospecting: Prospecting for oil by means of drilling holes into the ground, placing an explosive charge therein and detonating such charge, thereby exciting an energy or sound wave through the earth, the results of which are recorded and read by seismograph equipment placed at various locations on the surface of the earth. Seismic petroleum prospecting is prohibited in the following areas:

(a) The area within one-quarter mile of the boundary of O'Neill Park and Irvine Park.

(b) The area within one mile landward of the line of Upper Newport Bay as established and adjudicated by Superior Court Case No. 20436.

(c) The area within one mile landward of the coastline measured from mean lower low water datum as established by the U.S. Coast and Geodetic Survey from the easterly jetty of the harbor entrance at Newport Beach to the San Diego County line.

Shot hole: The hole drilled in seismic petroleum prospecting.

Source of ignition means any flame, arc, spark or heated object or surface capable of igniting flammable liquids, gases or vapors.

Structure is that which is built or constructed; a tank, edifice or building of any kind.

Suspended operations is the approved, temporary suspension of drilling or redrilling operations pending a resumption of operations or abandonment.

(Ord. No. 2613, § 2, 8-2-72; Ord. No. 3385, § 3, 5-17-83)

Sec. 7-8-23. - Definitions (T).

Tank is a container, covered or uncovered, used in conjunction with the drilling or production of an oil well, for holding or storing liquids at or near atmospheric pressure.

(Ord. No. 2613, § 2, 8-2-72)

Secs. 7-8-24, 7-8-25. - Reserved.

Sec. 7-8-26. - Definitions (W).

Well or *oil well* is a well or hole drilled into the earth for the purpose of exploring for or extracting from the earth oil, gas or other hydrocarbon substances, or a well or hole in the earth by means of and through which oil, gas and other hydrocarbon substances are extracted, produced or capable of being produced from the earth, or a well or hole for the purpose of secondary recovery or disposal thereof. "Well" does not include "shot hole."

Well servicing is remedial or maintenance work performed within any existing well which does not involve drilling or redrilling.

(Ord. No. 2613, § 2, 8-2-72)

Secs. 7-8-27—7-8-29. - Reserved.

Sec. 7-8-30. - Permits.

(a) A permit from the Director shall be obtained:

(1) For drilling or redrilling operations in connection with the exploration for or the production of petroleum, or for the purpose of secondary recovery.

(2) To erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish any structure.

(b) No permit shall be required for well servicing or maintenance of or for any structure for which a building permit is not required.

(Code 1961, § 77.014; Ord. No. 3385, § 4, 5-17-83)

Sec. 7-8-31. - Permit procedure.

The applicant shall file an application in writing for a permit on a form furnished for that purpose by the Environmental Management Agency. The application shall be accompanied by:

(a) A complete legal description of the property.

(b) A fully informative plot plan showing the location of the well, the location of which has been staked on the ground, appurtenant structures and their relation to any existing hospital, sanitarium, church, rest home, airport, school and dwelling within the radius required by this code.

(c) Plans and engineering specifications of structures, drilling derricks, drilling masts, tanks and high pressure systems regulated by this code. Applicant need not file plans and engineering specifications of standard derricks, masts and tanks when such plans and specifications are already on file in the office of the Director.

(d) A corporate surety bond in conformity with provisions of section 7-8-32

(e) A verified statement signed by the applicant certifying that he is duly authorized by operator to make and file the application and that he has read the application and the same is true and correct.

(f) An acknowledged statement in writing subscribed by the owner of the surface rights of the drill site and by the owner of any private land over which access is had to the drill site granting to the County of Orange the right to enter upon the drill site and such private land for the purpose of inspection and restoring the premises in the event the applicant should fail to do so.

(g) A statement as to the means by which liquid spills will be removed from diked area or catchment basins.

(h) Such other pertinent information as may be required by the Director.

(i) A drilling permit may be amended insofar as it relates to the drill site area and a drill site may be modified as to size and shape by filing with the Director of a modified plot plan if the modified drill site conforms to the applicable provisions of this code and of section 7-9-52 of this title, but not otherwise.

(Code 1961, § 77.015; Ord. No. 3385, § 5, 5-17-83)

Sec. 7-8-32. - Bonds.

(a) *Existing wells.* A bond in the form required by this section shall be filed for each existing well within thirty (30) days following the effective date of this code.

(b) *New wells.* A bond in the form required by this section shall accompany every application for the drilling or redrilling of any oil well for which a bond is not on file.

(c) *Bond forms.* Bonds shall be on a form approved by the County Counsel and shall be filed with the Environmental Management Agency.

(1) Single bonds: Corporate surety bonds in the penal sum of five thousand dollars ($5,000.00). The bond shall be executed by the operator as principal and by the authorized surety company as surety and conditioned that the principal named in the bond shall faithfully comply with all the provisions of this code in drilling or redrilling and maintaining all production facilities as required by this code until properly abandoned in conformity with the provisions hereof. The bond shall secure the County of Orange against all costs, charges and expenses incurred by it by reason of the failure of the principal to fully comply with the provisions of this code. The bond shall include the correct name or number of the well and such other information as may be necessary to readily identify the oil well.

(2) Blanket bonds: Any operator may, in lieu of filing a single bond for each well as required by the foregoing subsections (a) and (b) of this section, file a bond in the amount of twenty-five thousand dollars ($25,000.00) to cover all of his said operations conducted within the County of Orange. A rider to said bond shall be filed with the Director showing the correct name or number of the well and such other information as may be necessary to readily identify the oil well for each well covered by the bond.

(d) *Default in performance of conditions; notice to be given.*

(1) Whenever the Director finds that a default has occurred in the performance of any requirement or condition of these regulations, written notice thereof shall be given to the principal and to the surety on the bond.

(2) Such notice shall specify the work to be done, the estimated cost thereof and the period of time deemed by the Director to be reasonably necessary for the completion of such work.

(3) After receipt of such notice, the surety shall within the time therein specified either cause or require work to be performed, or failing therein, shall pay over to the Director the estimated cost of doing the work as set forth in the notice, plus an additional sum equal to twenty-five (25) percent of said estimated cost. Upon receipt of such moneys, the Director shall proceed by such

mode as he deems convenient to cause the required work to be performed and completed, but no liability shall be incurred therein other than for the expenditure of said sum in hand. In the event that the well has not been properly abandoned under the regulations of the Division of Oil and Gas, such additional moneys may be demanded from the surety as is necessary to restore the drill site in conformity with the regulations of this code.

(e) *Exoneration.* Any bond issued in compliance with these regulations shall be terminated and canceled and the surety be relieved of all obligations thereunder when the well has been properly abandoned in conformity with all regulations of the Division of Oil and Gas and notice to that effect has been received by the Environmental Management Agency.

(f) *Substitution.* A substitute bond may be filed in lieu of any bond on file hereunder and the Director shall accept and file the same if it is qualified and in proper form and substance and the bond for which it is substituted shall be exonerated but only if the Director finds that all of the conditions of last mentioned bond have been satisfied and that no default exist as to the performance upon which the bond is conditioned.

(Code 1961, § 77.016; Ord. No. 3385, § 6, 5-17-83)

Sec. 7-8-33. - Permit fees.

(a) *Drilling or redrilling permit fees.* A fee for each drilling permit or redrilling permit shall be paid to the Director as established by resolution of the Board of Supervisors.

Where drilling, redrilling, construction or other work for which a permit is required by this code is started or proceeded with prior to obtaining said permit, the fees hereunder specified shall be doubled, but the payment of such double fee shall not relieve any persons, firms, corporations or employees from fully complying with the requirements of this code or the execution of the work, nor from any other penalties prescribed herein.

(b) *Plan-checking fees.* A plan-checking fee shall not be charged for the derrick or its appurtenances. A plan-checking fee shall be charged for all permanent buildings, production tanks, washing tanks, skim ponds and such other structures not directly connected with the derrick itself. A plan-checking fee shall be charged for oil well cellars designed to accommodate more than one oil well. Said plan-checking fee shall be established by resolution of the Board of Supervisors.

(c) *Annual inspection fees.* The Director shall inspect annually and at such other times as he deems necessary, each producing oil well and suspended oil well regulated by this code for the purpose of ascertaining whether the well is being operated or maintained in conformity with the minimum standards of this code. To meet the expense of such inspection, the operator shall pay to the Environmental Management Agency an annual inspection fee as established by resolution of the Board of Supervisors. The year for which each fee is applicable runs from July first to June thirtieth. The fees shall be based upon the total number of wells existing (whether producing or not) on July first. The fees shall be due prior to July first of the year to which they pertain. No additional fee shall be charged for additional inspections which may be required during the year. The Director shall keep a permanent, accurate account of all annual inspection fees collected and received under this code, the name of the operator for whose account the same were paid, the date and amount thereof, together with the well name and designation and the general location of the well. A report of the Director's annual inspection findings shall be furnished the operator.

(d) *Building permit fees.* A building permit fee, as established by resolution of the Board of Supervisors of this County shall be charged for the erection or construction or relocation of any permanent building, tank or other structures hereinabove included and such fee shall be based on the total valuation of the structure when completed.

(e) No permit issued hereunder shall be valid unless utilization of the privileges granted thereby be commenced within one hundred eighty (180) days from and after the date of issuance of the permit and diligently and progressively prosecuted thereafter.

(Code 1961, § 77.017; Ord. No. 3385, § 7, 5-17-83)

Sec. 7-8-34. - Drilling and operating.

(a) *Location of oil wells.*

(1) No oil well shall be drilled within the following distances measured from the centerline of any local street or any highway shown on the Master Plan of Arterial Highways, as amended:

Major highways	210 feet
Primary highways	200 feet
Secondary highways	190 feet
Local streets	180 feet, except

that in the case of a local street, the right-of-way of which is more than sixty (60) feet in width, the distance shall be one hundred fifty (150) feet plus one-half of the existing right-of-way of which is more than sixty (60) feet in width, the Director may determine that because of the degree of slope or other feature of the topography, a lesser distance than one-half of the right-of-way in addition to the one hundred fifty (150) feet is reasonable to insure the safety of the traveling public in conformity with the purpose and intent of this provision, in which case the distance thus set by the Director shall prevail.

No oil well shall be drilled within one hundred fifty (150) feet of the nearest rail of a railway which carries passengers for hire.

(2) No oil well shall be drilled within one hundred fifty (150) .feet of any building used for human occupancy, nor shall any such buildings be erected within one hundred fifty (150) feet of any oil well not abandoned, except buildings incidental to the operation of the well. No oil well shall be drilled within one hundred fifty (150) feet from the outer boundary line.

(3) No oil well shall be drilled within three hundred (300) feet of any building used as a place of public assemblage, institution or schools; nor shall any such building be erected within three hundred (300) feet of any oil well not abandoned.

(4) No oil well shall be drilled within the following areas which are hereby declared scenic and recreational areas:

a. The area within one-quarter mile of the boundary of O'Neill Park and of Irvine Park;

b. The area within one mile landward of the line of Upper Newport Bay as established and adjudicated by Superior Court Case No. 20436;

c. The area within one mile landward of the coastline measured from mean low water datum as established by the U.S. Coast and Geodetic Survey from the easterly jetty of the harbor entrance at Newport Beach to the San Diego County line.

(5) Permitted, subject to conditions.

a. Within any district not designated with (O) on the Orange County Zoning Map and not above described as a scenic and recreational area, the use of land for the drilling and production of oil, gas and other hydrocarbon substances, is permitted upon the hereinafter described "primary conditions," if at the time of the application for a permit to drill there exists either:

1. Twenty-five (25) or more dwellings within one thousand three hundred twenty (1,320) feet of the proposed location of the well; or

2. Six (6) or more dwellings within six hundred sixty (660) feet of the proposed location of the well; or

3. Any legally established structure used for housing of mentally or physically ill or aged persons having five (5) or more beds, is within six hundred sixty (660) feet of the proposed location of the well; or

4. In the determination of conditions applicable outside of the (O) Districts, improvements and oil wells located within (O) Districts shall not be considered.

b. Within any district not designated with (O) on the Orange County Zoning Map and not above described as a scenic and recreational area, the use of land for the drilling and production of oil, gas and other hydrocarbon substances is permitted upon the hereinafter described "secondary conditions," if at the time of the application for a permit to drill neither 1. nor 2. nor 3., as described in subsection (a) above exists. In the determination of conditions applicable outside of the (O) Districts, improvements and oil wells located within (O) Districts shall not be considered.

c. The word "dwelling" as used in this section means any building or structure which has for its primary purpose human residence.

d. Primary conditions.

1. For site selection and preparation.

A. Drill site location: No drill site shall be located closer than one thousand three hundred twenty (1,320) feet from any drill site other than a drill site located in an (O) District. For the purpose of this article, the drill site for an oil well existing on May 28, 1958, shall be deemed to be all of the area within one hundred (100) feet from the center of the oil well.

B. Drill site area: No drill site shall contain more than two and one-half (2½) acres or be of such size or shape that it cannot be contained within a square three hundred thirty (330) feet by three hundred thirty (330) feet.

C. Number of wells: The number of wells which may be drilled shall not exceed one (1) well to each five (5) acres in the leased area.

D. Distance from dwelling: No oil well shall be drilled within one hundred seventy-five (175) feet of any dwelling.

E. Hours of operation: All work in preparation of the site for drilling shall be conducted only between the hours of 7:00 a.m. and 7:00 p.m.

F. Roads and excavations: Roads and other excavations shall be planned, constructed and maintained so as to provide stability of fill, minimize disfigurement of the landscape, maintain natural drainage and minimize erosion.

G. Cut and fill slopes: No slope of cut or fill shall have a gradient steeper than one foot rise in one foot horizontal measurement. Where by reason of the soil condition, the condition of the terrain or size or length of the cut required it is impractical to provide such gradient, the Superintendent of Building and Safety may grant an exception to such requirement provided he first finds that compliance with said requirement is impractical and that the integrity of the neighborhood will be maintained if such exception is granted.

H. Slope planting: All excavation slopes, both cut and fill, shall be planted and maintained with grasses, plants or shrubs during drilling and production operations, but only to an extent reasonably comparable with the general status of undisturbed surfaces in the vicinity.

I. Fencing:

aa. Drilling. Prior to the commencement of drilling operations, the drill site shall be enclosed by an eight-foot-high solid fence to reduce sound.

bb. Production. Upon completion of the drilling operation, the drill site shall be enclosed by a solid redwood fence or a solid masonry wall eight (8) feet high on all sides, except those sides on which exists a natural or artificial barrier of equal or greater solidity and height. Solid redwood board gates shall be installed and be equipped with keyed locks and shall be kept locked at all times when unattended. Any and all supporting members of the fence shall be on the interior of said fence. Such fence or wall shall be in lieu of any other fencing requirements.

J. Pipelines: All off-site pipelines serving the drill site shall be buried underground.

K. Parking: Parking for all vehicles including those of employees shall be provided on the drill site. Such parking areas shall be surfaced and maintained to prevent dust and mud.

L. Sanitary facilities: Sanitary facilities shall be provided at the drill site and shall be in accordance with Standards of the Orange County Health Department.

2. For drilling. Drilling operations shall be subject to the following limitations:

A. Soundproofing:

aa. When drilling operations are limited to the hours of 7:00 a.m. to 7:00 p.m., with no operation on Sunday, only minimum soundproofing, as determined by the Director of Building and Safety, shall be required.

bb. When drilling operations are to be conducted continuously, the derrick and all machinery shall be enclosed in soundproofing material or otherwise made soundproof to the satisfaction of the Director of Building and Safety.

B. Lights: All lights shall be directed or shielded so as to confine direct rays to the drill site.

C. Delivery of equipment: The delivery or removal of equipment or material from the drill site shall be limited to the hours between 7:00 a.m. and 7:00 p.m., except in case of emergency.

D. Drill pipe storage: No drill pipe shall be racked and made up except between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday, except within the derrick when soundproofed as specified in bb. above.

E. Power sources: All power sources shall be electric motors or muffled internal-combustion engines.

F. Maintenance: The drill site and all facilities shall be maintained in a neat, clean and orderly condition.

3. For production operation.

A. Underground installation: All wellhead equipment shall be installed in cellars and no portion of such equipment shall be or project above the surface of the surrounding ground.

B. Motive power soundproofing: Motive power for production operations shall be completely enclosed in a building or buildings insulated with sound-deadening materials. Such buildings shall be of residential appearance and no portion thereof shall exceed sixteen (16) feet in height.

C. Motive power location: Motive power for production operations shall be located on a drill site.

D. Height of installation: Except as otherwise herein specifically permitted, no permanent installations at the drill site shall be or project more than eight (8) feet above the surface of the surrounding ground.

E. Storage of equipment: There shall be no storage of material, equipment, machinery or vehicle which is not for immediate use or servicing of an installation on the drill site.

F. Maintenance: The drill site and all permanent installations shall be maintained in a neat, clean and orderly condition.

G. Storage tank location: Storage tanks shall be located on a drill site.

H. Storage tank capacity: Storage tank capacity at the drill site shall not exceed a total aggregate of two thousand (2,000) barrels exclusive of processing equipment.

I. All surfaces of permanent installations within the drill site shall be painted flat dark green or flat brown.

J. Removal of oil: Oil produced at the drill site shall be removed therefrom by an underground pipeline or pipeline at all times more than one hundred eighty (180) days from and after the date the first well in the drill site is completed.

K. Refineries: No refinery, dehydrating or absorption plant of any kind shall be constructed, established or maintained on the drill site or within the outer boundary line.

L. Gas burning: Natural gas shall not be vented to the atmosphere nor burned by open flare.

M. Well servicing: No well servicing shall be done except between the hours of 7:00 a.m. to 7:00 p.m. except in case of emergency.

N. Signs: No sign which is visible from outside of the drill site shall be caused, permitted or allowed to be or remain any place on the drill site except: (a) Such signs as are required by law, (b) warning signs, (c) no trespassing signs.

O. Landscaping: Shrubs shall be planted and maintained along the exterior of the fence or wall enclosing the drill site to relieve its monotonous appearance. This requirement shall not be construed to limit or prohibit additional site beautification by landscaping or other planting.

P. Off-site pipelines: Within thirty (30) days from and after completion of the drilling of the first well on a drill site, the work of burying all off-site pipelines shall be commenced and completed within a reasonable time thereafter.

e. Secondary conditions:

1. For site selection and preparation.

A. Drill site location: No drill site shall be located closer than one thousand three hundred twenty (1,320) feet from any other drill site. For the purpose of this article the drill site, for an oil well existing on the effective date of Ordinance No. 1096 shall be deemed to be all of the area within one hundred (100) feet from the center of the oil well.

B. Drill site area: No drill site shall contain more than two and one-half (2½) acres or be of such size or shape that it cannot be contained within a square three hundred thirty (330) feet by three hundred thirty (330) feet.

C. Roads and excavations: Roads and other excavations shall be planned, constructed and maintained so as to provide stability of fill, minimize disfigurement of the landscape, maintain natural drainage and minimize erosion.

D. Cut and fill slopes: No slope of cut or fill shall have a gradient steeper than one foot rise in one foot horizontal measurement. Where by reason of the soil condition of the terrain or size or length of the cut required it is impractical to provide such gradient, the Superintendent of Building and Safety may grant an exception to such requirement provided he first finds that compliance with said requirement is impractical and that the integrity of the neighborhood will be maintained if such exception is granted.

E. Slope planting: All excavation slopes, both cut and fill, shall be planted and maintained with grasses, plants or shrubs during drilling and production operations, but only to an extent reasonably comparable with the general status of undisturbed surfaces in the vicinity.

F. Off-street parking: An off-street parking area containing not less than five (5) parking spaces, each of which shall be at least ten (10) feet by twenty (20) feet, shall be provided for each well being drilled and shall be surfaced and maintained in accordance with the requirements of the Orange County Oil Code.

G. Sanitary facilities: Sanitary facilities shall be provided at the drill site and shall be in accordance with standards of the Orange County Health Department.

2. For drilling.

A. Lights: All lights shall be directed or shielded so as to confine direct rays to the drill site.

B. Power sources: All power sources shall be electric motors or muffled internal-combustion engines.

3. For production operations.

A. Motive power locations: Motive power for production operations shall be located on a drill site.

B. Height of pumping equipment: No walking beam type pumping equipment shall project more than ten (10) feet at its highest point of rise above the surrounding ground levels.

C. Storage tank location: Storage tanks shall be located on the drill site.

D. Height of storage tanks: No oil storage tank shall exceed eighteen (18) feet in height above the ground level.

E. Height of wash tanks: No wash tank shall exceed twenty-four (24) feet in height nor exceed eight (8) feet in diameter.

F. Fencing: Within thirty (30) days from completion of the first well on a drill site, such site shall be enclosed by a solid redwood fence or solid masonry wall eight (8) feet high on all sides, except those sides on which exists a natural or artificial barrier of equal or greater solidity and height. Solid redwood board gates shall be installed and be equipped with keyed locks and shall be kept locked at all times when unattended. Such fence or wall shall be in lieu of any other fencing requirements.

(6) The Director may suspend any provision of subsection (a) in whole or in part, or impose less restrictive requirements if such provisions or requirements are rendered unnecessary or unreasonable by the then existing special features, such as: Topography, nature of the use and occupancy of and the proximity to buildings on adjoining property, the height, character and structure of such buildings, the type and character of oil field development and may impose additional safety requirements rendered necessary because of such special features.

(Code 1961, § 77.018; Ord. No. 2613, § 1, 8-2-72; Ord. No. 3385, § 8, 5-17-83; Ord. No. 99-3, § 1, 1-26-99)

Secs. 7-8-35—7-8-39. - Reserved.

Sec. 7-8-40. - Abandonment procedure.

It shall be the responsibility of the Director to determine that the drill site and all facilities pertinent thereto have been restored to their original condition as nearly as practicable in conformity with the regulations of this code including the following requirements:

(a) *Standard.*

(1) It shall be the responsibility of the operator to comply with the abandonment provision of this code and he shall furnish the Director the approval of the Division of Oil and Gas, Department of Natural Resources, confirming compliance with all abandonment proceedings under the state laws.

It shall be the responsibility of the operator to comply with the abandonment provision of this code and he shall furnish the Director with a) a copy of the approval of Division of Oil and Gas, Department of Natural Resources, confirming compliance with all abandonment proceedings under the State law, and b) a notice of intention to abandon under the provisions of this section and stating the date such work will be commenced. Abandonment may then be commenced on or subsequent to the date so stated.

Abandonment shall be approved by the Director after restoration of the drill site and the subsurface thereof has been accomplished in conformity with the following requirements:

a. The derrick and all appurtenant equipment thereto shall be removed from the drill site.

b. All tanks, towers and other surface installations shall be removed from the drill site.

c. All concrete, pipe, wood and other foreign materials shall be removed from the drill site to a depth of six (6) feet below grade, unless part of a multi-well cellar then being used in connection with any other well for which a permit has been issued.

d. The oil well casing shall be cut off at a point six (6) feet below the drill site grade at the cellar, but in no case below sea level. Nothing shall be placed in the hole above the point of cutoff until the cutoff has been inspected by the Director and by him found to be in compliance with all applicable provisions of law.

e. The top twenty-five (25) feet of the remaining casing shall be filled with a cement plug to prevent gas fumes from escaping.

f. A steel cap of not less than the same thickness as the well casing shall be tack welded to the casing in a minimum of four (4) places.

g. All holes and depressions shall be filled and packed with native earth. All oil, waste oil, refuse or waste material shall be removed from the drill site.

(b) *Conversion to water well.* A well may be converted to a domestic or agricultural water well upon the approval of the Director after:

(1) A request in writing by the landowner has been made to the Director.

(2) An original or certified copy of the approved conversion permit from the Division of Oil and Gas has been furnished the Director.

(3) All the provisions of abandonment in the preceding subsection have been complied with except that those appurtenances necessary in the opinion of the Director for the operation of a water well may be retained.

(Code 1961, § 77.019; Ord. No. 2613, § 1, 8-2-72; Ord. No. 3385, § 9, 5-17-83)

Sec. 7-8-41. - Called inspections.

Except as provided in subsection (b) hereof no drilling, redrilling, work or construction shall be done beyond the point indicated in each successive inspection without first obtaining the written approval of the Director.

(a) *Site preparation.*

(1) The well location shall be clearly marked by a stake or other suitable means and identified as the "well location."

(2) The drill site shall be prepared as required in these regulations and shall be of such size so as to provide for the safe erection of the mast or derrick and all appurtenant structures thereto as indicated on the approved plot plan.

(3) Any private road used for ingress and egress of equipment to the drill site shall be prepared as required by these regulations.

(4) The proposed well shall be located in conformity with these regulations as to the distances from streets, outer boundaries, public buildings and dwellings.

(b) *Commencement of drilling.* The Director shall be called and notified when the drilling derrick or mast has been erected in conformity with these regulations and all necessary equipment pertinent to the drilling operations thereof has been installed and is on the site. Drilling may proceed prior to inspection of the derrick or mast, provided that its design has been previously

approved by the Director. It will be the obligation of the Director to inspect such facilities as to their conformity with these regulations as soon as reasonably practicable.

(c) *Release of drilling crew.* The Director shall be notified immediately in writing when the drilling crew is released and it shall then be his duty to inspect.

(d) *Completion of drilling.* Upon completion of drilling operations, an inspection request shall be called for.

(e) *Abandonment.* An inspection shall be made subsequent to the approval of the abandonment notice and the Director shall certify that the well has been abandoned in conformity with all regulations to a depth of six (6) feet below grade.

(Code 1961, § 77.0110; Ord. No. 3385, § 10, 5-17-83)

Sec. 7-8-42. - Notices required.

(a) *Service of notice.* Every operator of any oil well shall designate an agent who is a resident of the State of California, upon whom all orders and notices provided in this code may be served in person, or by registered or certified mail. Every operator so designating such agent shall within ten (10) days notify the Director, in writing, of any change in such agent or such mailing address unless operations within the County are discontinued. Service by registered or certified mail, or in person on the agent so designated, shall constitute service for all purposes of this code.

(b) *Transfer of operator.* The operator shall notify the Director, in writing of the sale, assignment, transfer, conveyance or exchange by said operator of wells, property and equipment within ten (10) days after such sale, assignment, transfer, conveyance or exchange. The notice shall contain the following:

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

(2) The name and location of the well.

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

(4) The date when possession was relinquished by the former operator.

(5) A description of the properties and equipment transferred. Every person who acquires any well, property or equipment, whether by purchase, transfer, assignment, conveyance, exchange or otherwise shall within ten (10) days after acquiring such well, property or equipment notify the Director, in writing, of his ownership. The notice shall contain the following:

a. The name and address of the person from whom such well and property was acquired.

b. The name and location of the well.

c. The date of acquisition.

d. A description of the properties and equipment transferred.

e. Reserved.

f. The person designated for service of notice and his address.

(c) *Suspension of drilling and redrilling operations.* The operator of any well shall notify the Director, in writing, of any temporary suspension of operations, pending a resumption of operations or abandonment. The Director, for good cause, may approve temporary suspension of operations. Such notice shall be filed with the Director within thirty (30) days from and after release of drilling

crew. Failure of the Director to act within ten (10) days shall constitute approval thereof. The operator shall notify the Director, in writing, upon resumption of operations giving the date thereof.

(d) *Change in drilling contractor.* The operator, before changing drilling or redrilling contractors, shall file with the Director a written notice of the change, giving the name of the original contractor and the name of the proposed contractor, and such information as was originally required to meet the design and structural requirements of this code. Such notice shall be attached to and become a part of the original oil drilling or redrilling permit.

(Code 1961, § 77.0111; Ord. No. 3385, § 11, 5-17-83)

Sec. 7-8-43. - Storage facilities.

(a) *Storage capacity.* Maximum tank capacity for producing oil well: If oil or other liquid storage facilities are established incidental to a producing well on a drill site, such storage facilities shall not exceed a total of two thousand (2,000) barrels per well.

(b) *Design and construction of tanks.* All tanks shall be constructed in detailed conformity with the current A.P.I. Standards applicable thereto.

(c) *Foundations and supports.* Tanks shall rest directly on the ground or on foundations, supports or pilings of concrete, masonry, steel, crushed rock or wood. Exposed pilings or steel supports shall be protected by fire-resistive materials to provide a fire-resistance rating of not less than two (2) hours. Stairs, platforms and walkways shall be of metal, concrete or wood.

(d) *Spacing between tanks.*

(1) No tank for the storage of any flammable liquid shall be located closer than three (3) feet of any other such tank.

(2) For tanks above fifty thousand (50,000) gallons individual capacity for the storage of any flammable liquid, except crude petroleum, the distance between such tanks shall not be less than one-half the diameter of the smaller tank.

(3) Tanks for the storage of crude petroleum having capacities not exceeding one hundred twenty-six thousand (126,000) gallons (3,000 barrels) shall not be less than three (3) feet apart. Tanks having a capacity in excess of one hundred twenty-six thousand (126,000) gallons (3,000 barrels) shall be not less than the diameter of the smaller tank apart.

(4) The minimum separation between a liquefied petroleum gas container and any other tanks for the storage of any flammable liquids shall be twenty (20) feet. Suitable means shall be taken to prevent the accumulation of flammable liquids under adjacent liquefied petroleum gas containers such as by diking, diversion curbs or grading. When flammable liquid storage tanks are diked, the liquefied petroleum gas containers shall be outside the diked area and at least ten (10) feet away from the center line of the dikes. The foregoing provision shall not apply when liquefied petroleum gas containers of one hundred twenty-five (125) gallons or less capacity are installed adjacent to Class III flammable liquid storage tanks of two hundred seventy-five (275) gallons or less capacity.

(e) *Location of tanks.* Minimum distance between any outside aboveground tanks to the nearest building or line of adjoining property which may be built upon:

(1) Flammable liquids other than those having boilover characteristics similar to crude petroleum:

Capacity of Tanks	Class of	Minimum

	Flammable Liquid	Distance
0 to 275 gals.	III	0 feet
276 to 750 gals.	III	5 feet
0 to 750 gals.	I and II	10 feet
721 to 12,000 gals.	III	10 feet
751 to 12,000 gals.	I and II	15 feet
12,001 to 24,000 gals.	I, II and III	15 feet
24,001 to 30,000 gals.	I, II and III	20 feet
30,001 to 50,000 gals.	I, II and III	25 feet

(2) Crude petroleum and other liquids having boilover characteristics similar to crude petroleum and flammable liquid tanks with capacity in excess of fifty thousand (50,000) gallons:

Crude Petroleum and Tanks with Capacities in Excess of 50,000 Gallons

Tanks with capacities in excess of fifty thousand (50,000) gallons and all tanks for the storage of crude petroleum shall be located in accordance with the following provisions (applicable to gastight tanks including conservation type tanks constructed in compliance with these or equivalent standards):

Storage Facilities

Product Stored		Tank Protection	Distance From Line of Adjoining Property Which May Be Built Upon Shall Be Not Less Than
Refined petroleum products or other flammable liquids not subject to boilover	Group A tanks	1) An approved permanently attached extinguishing system or 2) An approved floating	Greatest dimension of diameter or height of tank, except that such distance need not exceed 120 feet

		roof	
	Group B tanks	Not equipped with either of the above	1½ times the greatest dimension of diameter or height of tank except that such distance need not exceed 175 feet
Crude petroleum*	Group C tanks	1) An approved permanently attached extinguishing system or 2) An approved floating roof	2 times the greatest dimension of diameter or height of tank except that such distance shall not be less than 20 feet and need not exceed 175 feet
	Group D tanks	Not equipped with either of the above	3 times the greatest dimension of diameter or height of tank except that such distance shall not be less than 20 feet and need not exceed 300 feet

a. *Group A tanks.* Any gastight tank* constructed in compliance with these or equivalent standards and equipped either with:

   1. An approved permanently attached extinguishing system; or

   2. An approved floating roof, which is to be used only for the storage of refined petroleum products or other flammable liquids not subject to boilover, shall be so located that the distance from the line of adjoining property which may be built upon shall be not less than the greatest dimension of diameter or height of the tank, except that such distance need not exceed one hundred twenty (120) feet.

b. *Group B tanks.* Any gastight tank* constructed in compliance with these or equivalent standards but not equipped either with:

   1. An approved permanently attached extinguishing system; or

   2. An approved floating roof, which is to be used only for the storage of refined petroleum products or other flammable liquids not subject to boilover, shall be so located that the distance from the line of adjoining property which may be built upon shall be not less than one and one-half (1½) times the greatest dimension of diameter or height of the tank, except that such distance need not exceed one hundred seventy-five (175) feet.

c. *Group C tanks.* Any gastight tank* constructed in compliance with these or equivalent standards and equipped either with:

   1. An approved permanently attached extinguishing system; or

   2. An approved floating roof, which is to be used for the storage of crude petroleum, shall be so located that the distance from the line of adjoining property which may be built upon shall be not less than twice the greatest dimension of diameter or height of the tank except

that such distance shall be not less than twenty (20) feet and need not exceed one hundred seventy-five (175) feet.

d. *Group D tanks.* Any gastight tank* constructed in compliance with these or equivalent standards and not equipped either with:

1. An approved permanently attached extinguishing system; or

2. An approved floating roof, which is to be used for the storage of crude petroleum, shall be so located that the distance from the line of adjoining property which may be built upon shall be not less than three (3) times the greatest dimension of diameter or height of the tank except that such distance shall not be less than twenty (20) feet and need not exceed three hundred fifty (350) feet.

Note: The term "approved attached extinguishing system," as used in the foregoing description, may be interpreted to apply to:

1. A fixed foam or other recognized extinguishing system embodying a supply of the extinguishing medium; or

2. A system employing a pipeline for conveying foam from a point outside the dike to the tank; or

3. Portable overshot devices for applying foam over the rim of the tank. Where reliance is placed on a pipeline for conveying foam, the pipeline shall be so installed and attached as to be an integral part of the tank. Where reliance is placed on a portable overshot device, the practicability of its use shall be demonstrated before approval. Approved foam-generating equipment of sufficient capacity should be available on the property, by response of a municipal or other public fire department, or otherwise readily available, and there should be on hand or otherwise readily available a sufficient supply of foam-producing materials as specified in the National Fire Protection Association Standards for Foam Extinguishing Systems, No. 11.

4. Buildings essential to the operation of the storage facilities (building location): No building used for human occupancy, except buildings essential to the operation of the storage facilities, shall be erected within the distances set out in the tables above, from such storage tanks.

*The term gastight tank includes so-called conservation type tanks.

(f) *Diverse ownership.* Where tank location of diverse ownership have a common boundary, the Director may, with the written consent of the owners, waive the required distances from the common property line and substitute the space between tanks as provided in this section.

(g) *Dikes, diversion walls and catchment basins.*

(1) Required: Tanks used for the storage of crude petroleum and other flammable liquids having similar boilover characteristics shall be diked, or provided with approved diversion walls and catchment basins, or combinations thereof.

(2) Location: No catchment basin or diked impounding area shall be located closer to the outer boundary line, or to any building designed for human occupancy than the diameter or height (whichever is greater) of the largest tank served by such basin or area, nor shall any building designed for human occupancy be erected or placed closer than such distance to any catchment basin or diked impounding area.

(3) Capacity: The net capacity of a catchment basin, diked impounding basin or any combination thereof shall be equal to the capacity of the largest tank, plus ten (10) percent of the aggregate

capacity of all other tanks served. In computing the required capacity of a catchment basin, diked impounding basin or combination thereof:

a. The volume of the largest tank up to the height of the dike shall be considered as part of the available capacity of a diked impounding basin.

b. No part of the volume of tanks other than the largest tank shall be considered as part of the available capacity.

c. The capacity of a separate catchment basin may be used to reduce the required capacity of a diked impounding basin provided drainage sufficient to prevent overflow of the dike and effective control of flow are provided.

d. The capacity of a single separate catchment basin may be applied to reduce the required capacity of each of the diked impounding basins draining into it.

(4) Construction: Dikes shall be of earth, concrete or solid masonry designed to be liquid-tight and shall be maintained. Where piping passes through dikes, provision shall be made for movement without damage to the dike and to minimize leaks under emergency conditions. Earthen dikes shall be built and maintained at a minimum height of two (2) feet, have sloping sides consistent with the angle of repose of the material used and be not less than two (2) feet wide at the top. The distance between the inside toe of any dike and the shell of the tank shall be not less than five (5) feet for tanks not more than thirty (30) feet in diameter and ten (10) feet for tanks in excess of thirty (30) feet in diameter.

a. Spill dikes: Where tanks within a common diked impounding basin may cause mutual exposure from spills, spill dikes shall be provided between tanks of ten thousand (10,000) barrels or greater individual capacity. Groups of tanks of less than ten thousand (10,000) barrels individual capacity and not in excess of fifteen thousand (15,000) barrels aggregate capacity may be enclosed within a single spill dike. The height of such spill dike shall not exceed fifty (50) percent of the height of the main or perimeter dikes.

b. Drainage: Drainage shall be provided at a consistent slope of not less than one percent away from tanks and fittings to a sump, drain box or other safe means of disposal located within the diked impounding area and at the greatest possible distance from the shell of the tank. Traps with not less than six (6) inches of liquid seal shall be provided between the sumps, drain boxes or sewer openings within any impounding area and the sewers or drains intended for the disposal of spills. A valve, operable from outside the dike, shall be provided in the dike drain system and shall normally be kept closed.

c. Disposal: Approved provisions shall be made for disposing of water and of oil retained by dikes, impounding or catchment basins.

(h) *Suspension of requirements.* In particular installations, some or all of the requirements of subsections (d), (e) and (g) of this section governing storage facilities may be suspended, in whole or in part, or less restrictive requirements may be imposed pending further order of the Director, where such requirements are rendered unnecessary or unreasonable by reason of the then existing special features such as: Topography, nature of occupancy and proximity to buildings on adjoining property, the height and character of construction of such buildings, capacity and construction of the proposed tanks and the character of liquids to be stored, the degree of private fire protection to be provided and the facilities of the Fire Department to cope with flammable liquid fires.

(i) *Skim ponds.* Any open, accessible, surface or subsurface installation used for the disposal of permitted waste liquids shall be fenced in accordance with the preceding fencing provision.

(j) *Loading by truck from production tank sites.* Location: Tank vehicle loading racks, loading platforms or movable loading spouts or arms dispensing flammable liquids shall be separated from tanks, warehouses, other buildings, public streets and nearest line of property that may be built upon by a

clear distance of not less than twenty-five (25) feet, measured from the nearest position of any fill stem. Buildings for pumps or for shelter of loading personnel may be part of the loading rack or platform. No person shall load or unload, or permit the loading or unloading of a tank vehicle unless such vehicle is located outside of any public street right-of-way.

Loading and unloading operations: During the loading or unloading of a tank vehicle, a qualified person shall be at the loading or unloading controls. Provision shall be made for the safe disposal of oils released by overflow and from loading spouts or lines.

(k) *Maintenance of tanks.* All tank tops which are accessible by means of a ladder, stairs or otherwise shall be maintained in a safe manner. Such tops unless constructed and maintained in compliance with the applicable A.P.I. Standards shall be made of a substantial material with no openings in excess of four (4) inches in any dimension except for gauging hatches and similar openings which can be secured.

(Code 1961, § 77.0112; Ord. No. 2613 § 1, 8-2-72; Ord. No. 3385, § 12, 5-17-83)

Sec. 7-8-44. - High pressure pipe systems.

All piping systems to be operated at a pressure in excess of twenty (20) per cent of the minimum yield strength of the material with which the pipe is fabricated shall be designed, constructed, operated and maintained in accordance with the provisions of A.N.S.I. Standards B 31.

(Code 1961, § 77.0113; Ord. No. 2613, § 1, 8-2-72)

Secs. 7-8-45—7-8-49. - Reserved.

Sec. 7-8-50. - Fire prevention; sources of ignition.

(a) *Electrical equipment.* All electrical equipment shall be installed and maintained in accordance with the requirements of the National Electrical Code as amended and adopted by the County of Orange.

(b) *Internal-combustion engines, storage tanks, fired equipment and open flames.* No internal-combustion engine, storage tanks, boiler-fired equipment or open flames except welding supervised by the production foreman, drilling foreman, drilling engineer, drilling supervisors or safety supervisors shall be located closer than twenty-five (25) feet to a producing well nor closer than one hundred (100) feet to a drilling well. Internal-combustion engines (and their fuel tanks) used in the drilling, production and servicing of oil wells are exempt from the above provisions. During drilling operations on a drill site of two (2) acres or less in area where two (2) or more wells are drilled and drilling and production equipment are located on such sites, the provisions in this subsection relating to distances of storage tanks may be altered at the discretion of the Director after consideration of the special features such as: Topographical conditions; nature of occupancy and proximity to buildings on adjoining property and height and character of construction of such buildings; capacity and construction of proposed tanks and character of liquids to be stored; degree of private fire protection to be provided, and facilities of the fire department to cope with flammable liquid fires.

(c) *Muffling exhaust.* The engines used in connection with the drilling of any oil well or in any production equipment of any oil well shall be equipped with an exhaust muffler to prevent excessive or unusual noise. Means shall be provided on all engines used during drilling operations to prevent the escape of flames, sparks, ignited carbon and soot.

(d) *Flammable waste gases and vapors.* Flammable waste gases or vapors escaping from a production drill site shall be burned or controlled to prevent hazardous concentrations reaching sources of ignition or otherwise endangering the area.

(1) Flares. Approved means of ignition shall be provided whenever hydro-carbon gases are released to the air through flares.

(2) Venting. Gases or vapors not burned may be discharged to the atmosphere at not less than twenty (20) feet vertically above grade and not less than twenty-five (25) feet horizontally from any source of ignition and at locations that do not create a hazard to the general area.

(e) *Waste control of drill site.*

(1) No person shall permit or cause to be permitted the discharge of any liquid containing crude petroleum or its products into or upon any street, public highway, drainage canal or ditch, storm drain or flood-control channel.

(2) No person shall permit or cause to be permitted any oil, waste oil, refuse or waste material to be on the surface of the ground, under, around or near any oil well, pump, boiler, oil storage tank or building except within an oil sump, tank, catchment basin or skimming pond. No new sumps or ponds shall be created without the written approval of the Director of the Environmental Management Agency.

(3) All land within twenty-five (25) feet of any oil well, flammable liquid tank or other appurtenance to any such well shall be at all times kept free and clear of dry weeds, grass, rubbish or other combustible debris. When this distance is not sufficient to provide reasonable fire safety, a greater distance may be required which shall not exceed the height of the derrick or greatest dimension of the tank.

(f) *Smoking.* No person shall smoke nor cause, permit or allow another person to smoke within fifty (50) feet of any well, tank location or any area contaminated by oil or waste gas.

(g) *Fire control equipment.* A minimum of two (2) fire extinguishers shall be maintained at all oil well locations where drilling, servicing or repair work is being conducted. Each such extinguisher shall have a minimum classification of 20B as set forth in National Fire Protection Association No. 10, "Standard for the Installation of Portable Fire Extinguishers."

(Code 1961, § 77.0114; Ord. No. 2613, § 1, 8-2-72; Ord. No. 3385, § 13, 5-17-83)

Sec. 7-8-51. - Enforcement.

It shall be the duty of the Director to enforce the provisions of the code. If at any time the Director finds any operator is violating any of the provisions of this code, he may order immediate compliance. If immediate compliance is not obtained, the Director shall order immediate cessation of operations. The operator shall immediately comply with the order of the Director to cease and shall not resume any operations until written approval of the Director is had.

(Code 1961, § 77.0115; Ord. No. 3385, § 14, 5-17-83)

Sec. 7-8-52. - Appeals.

(a) The Board of Supervisors shall have and exercise the power to hear and determine appeals where it is alleged there is error or abuse of discretion in any order, requirement, decision or determination made by the Director in the administration or enforcement of any of the provisions of this Code.

(b) An appeal shall be in writing and shall be filed in triplicate in the office of the Director. An appeal from any order, requirement, decision or determination by the Director must set forth specifically wherein it is claimed there was an error or abuse of discretion by his action or where the decision is not supported by the evidence in the matter.

(c) Any appeal not filed within ten (10) days from and after the date of the order, requirement, decision or determination complained of shall be dismissed by the Board of Supervisors.

(d) Within five (5) days from and after the filing of the appeal, the Director shall transmit to the Board of Supervisors all papers involved in the proceedings and two (2) copies of the appeal. In addition, he may make and transmit to the Board of Supervisors such supplementary report as he may deem necessary to present clearly the facts and circumstances of the case.

(e) Upon receipt of the record, the Board of Supervisors shall set the matter for hearing and give notice by mail of the time, place and purpose thereof to appellant and to the Director and any other party at interest who has requested in writing to be so notified and no other notice need by given.

(f) Upon the date for the hearing, the Board of Supervisors shall hear the appeal, unless for cause the Board of Supervisors shall on that date continue the matter. No notice of continuance need be given if the order therefor be announced at the time for which the hearing was set.

(g) Upon the hearing of such appeal, the Board of Supervisors may affirm, change or modify the ruling, decision or determination appealed from or in lieu thereof may make such other or additional determination as it shall deem proper in the premises subject to the same limitations as are placed upon the Director by this code and by other provisions of law.

(Code 1961, § 77.0116; Ord. No. 3385, § 15, 5-17-83)

Sec. 7-8-53. - Violations and penalties.

Any person, firm, corporation violating any of the provisions of this Code shall be deemed guilty of a misdemeanor, and each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this Code is committed, continued, or permitted, and upon conviction of any such violation such person shall be punished by a fine of not more than five hundred dollars ($500) or by imprisonment for not more than six (6) months, or by such fine and imprisonment.

(Code 1961, § 77.0117; Ord. No. 3385, § 16, 5-17-83)

(Prior to completing Part I, refer to regulations and instructions page 5.)

SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN

PART I
GENERAL INFORMATION

1. Name of facility Banning Ranch - West Newport Field
2. Type of facility Onshore Producing Facility
3. Location of facility 1080 W. 17th Street, Costa Mesa
   Orange County, California
   bordering the city of Newport Beach

4. Name and address of owner or operator:
   Name West Newport Oil Company
   Address P.O. Box 1487
   Newport Beach, CA 92659

5. Designated person accountable for oil spill prevention at facility:

   Name and title Rick Swaringen and Richard Jenkins, supervisiors

6. Facility experienced a reportable oil spill event during the twelve months prior to Jan. 10, 1974 (effective date of 40 CFR. Part 112). (if YES, complete Attachment #1.) No

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MANAGEMENT APPROVAL

This SPCC Plan will be implemented as herein described.

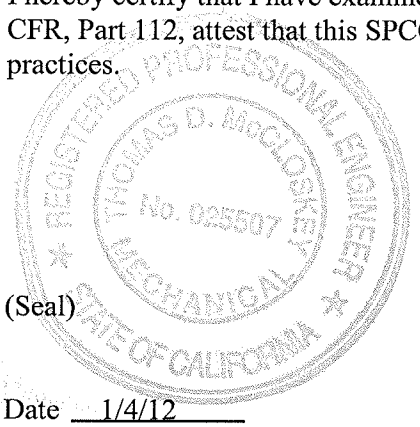
Signature _____

Name J. R. Stair

Title Vice President

CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR, Part 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices.



(Seal)

Thomas Downs McCloskey

Printed Name of Registered Professional Engineer

Thomas Downs McCloskey

Signature of registered Professional Engineer

Date 1/4/12

Registration No. M025507 State CA

Part I
General Information

7. Potential Spills - Prediction and Control :

Source	Type of Failure	Product	Quantity (Bbls)	Rate - Bbls/hr	Direction of Flow	Secondary Containment
Tank Farm 2 - 1000 Bbl tanks 1 - truck loading rack	Leak or Rupture	Crude Oil	1,000	15	West	Concrete Block Wall
Diesel Tanks	Leak or Rupture	Diesel Fuel	240	240	Southwest	Earthen Berm
Wastewater Tanks – Tank Farm Area Sumps, Separator	Leak or Rupture	Wastewater, < 100 ppm oil	500	250	West	Concrete Block Wall
Wastewater Tank – Sewer Connection	Leak or Rupture	Wastewater, < 100 ppm oil	100	150	West	Earthen Berm
Oil Production Wells and Pipelines	Leak or Rupture	Oil/Water mixture, 98% water	1,000	300	Southwest	Well Cellars, Ditches, Settling Ponds, Earthen Berms
City of Newport Beach Wastewater Pipeline	Leak or Rupture	Wastewater, < 100 ppm oil	500	75	West	Earthen Berm

Name of Facility Banning Ranch - West Newport Field

Operator West Newport Oil Company

Part I
GENERAL INFORMATION

Discussion :

- The Banning Ranch portion of the West Newport Field is manned 24 hours per day, seven days per week, 52 weeks per year.
- The secondary containment listed in the preceding table is sufficient to control 100% of the stored products.
- Individual wells all have concrete well cellars and are inspected daily for mechanical integrity. Oil which accumulates in the well cellars is removed by vacuum trucks as necessary. Vacuum trucks are maintained on site.
- Production pipelines have gate, block , and check valves for fluid emergency shut off. Direction of flow (run off) is west to southwest through natural drainage channels to the Santa Ana River. There are several settling ponds or ditches along the drainage course where potential spills could be collected and removed. An earthen berm running from the northwest property corner, south along the western border, and then angling southeast to the Tank Farm spill containment is maintained. This berm provides additional containment for over 90% of the field's producing operations.
- Well numbers 22R, 29R, 37R2, 448 and 410 are isolated from potential spills by earthen berms which encircle the producing sites.
- An earthen berm provides secondary containment for the City of Newport Beach wastewater pipeline and is routinely maintained. Well numbers 76R, 148, and 416 lie within the City wastewater pipeline containment berm. Any drain valves in this berm are kept closed except when collected rainwater is to be released.
- There are backhoes, dump trucks, and skip loaders on site for cleanup activity if necessary. This equipment can be used to create temporary dikes and contain potential spills.
- Pipeline right-of-ways should be kept clear to facilitate inspection and repair.
- The wastewater is characterized as an iron sulfide contaminated brine with oil generally present at concentrations less than 100 ppm. The majority of wastewater produced is injected back into the main producing reservoir.
- There is an established permit to dispose of excess wastewater into the local sewer system.

Part I
General Information

8. Containment or diversionary structures or equipment to prevent oil from reaching navigable waters are practicable. Yes
9. Inspections and Records
   A. The required inspections follow written procedures. Yes

   B. The written procedures and a record of inspections, signed by the appropriate supervisor or inspector, are attached. Yes

   Discussion : see Attachment A
   Attachment B
   Attachment #3

10. Personnel Training and Spill Prevention Procedures

   A. Personnel are properly instructed in the following:
      1) operation and maintenance of equipment to prevent oil discharges
      Yes

      2) applicable pollution control laws, rules, and regulations
      Yes

The production supervisor will review the operation and maintenance of equipment to prevent oil spills. Applicable laws, rules and regulations and oil spill reporting requirements will be reviewed semi-annually with field personnel.

   B. Scheduled prevention briefings for the operating personnel are conducted frequently enough to assure adequate understanding of the SPCC Plan. Yes

The production supervisor will review the SPCC Plan quarterly with each filed operator. These briefings should include a discussion of known spill events or failures, malfunctioning components and recently developed precautionary measures. Each tour will record noteworthy events in the operating log book.

Name of Facility Banning Ranch - West Newport Field
Operator West Newport Oil Company

PART II. ALTERNATE B
DESIGN AND OPERATING INFORMATION - ONSHORE OIL PRODUCTION FACILITY

A. Facility Drainage

1. Drainage from diked storage areas is controlled as follows:
   - Manually operated valves are sealed in a closed position and are rarely opened to drain rainwater.
   - Rainwater which collects in the tank farm can be pumped into the wastewater system.
   - During periods of prolonged, heavy rain, containment rainwater may be released into natural drainage paths.

2. The procedure for supervising the drainage of rainwater from secondary containment into natural drainage courses is as follows (a record of inspection and drainage events is to be maintained on a form similar to Attachment #3):
   - The field operator will visually inspect the condition of the water for the presence of oil before releasing the water.
   - Drain valves will be kept closed except when necessary to drain rainwater.
   - A record shall be maintained of each such event (see Attachment #3).

3. Field drainage ditches, cellars, or other such potential oil traps are inspected at regularly scheduled intervals for accumulations of oil. Yes

   During each shift (8 hour tour), the filed operator will visually inspect for accumulations of oil on roads, ditches, and other production facilities. Accumulated oil will be picked up by a vacuum truck or disposed of by approved methods as required. Necessary repairs and/or troubleshooting efforts will be made as soon as possible.

B. Bulk Storage Tanks

1. All oil storage tanks are bolted steel, 10 or 12 gauge steel. Tanks are equipped with equalizing lines for failsafe operation and Varic liquid level indicators for quick gauging. The diesel storage tank is welded with 1" thick steel walls. The tank is piped with a guided, lift off flange on top for failsafe operation. The wastewater system tanks are fiberglass to prevent excessive corrosion.
2. The design, construction material, and volume of the secondary containment for tanks is as follows:

Product	Construction	Volume, Bbls
Crude Oil and Wastewater, Tank Farm	Concrete Block Wall	50,000
Diesel Tank	Earthen Berm	1,200
Wastewater	Earthen Berm	5,000

PART II. ALTERNATE B
DESIGN AND OPERATING INFORMATION - ONSHORE OIL PRODUCTION FACILITY

3. Visual examination will be made daily for leaks at chimes and flanges and for the condition of the foundations for tank support. The tanks shall be examined semi-annually by the production supervisor and his observations shall be recorded.

C. Facility Transfer Operations

1. Above ground valve and pipelines are examined and recorded quarterly. Wellhead production equipment are examined daily. Wastewater production and disposal equipment are examined daily. Wastewater system is examined weekly and any oil accumulation is skimmed by a vacuum truck as required. The field is constantly under inspection as routine operations are conducted.
2. Records of pipeline maintenance repairs and leaks are kept and used in a maintenance and replacement program. Scale and corrosion inhibitors are injected into key production and wastewater lines. Where applicable, plastic or fiberglass piping systems are used.
3. A leak detection program and guidelines have been established.
4. Wastewater streams/vessels are skimmed for oil accumulations. Skimmed volumes are reprocessed.
5. Accumulated solids from separation vessels and other blowdown is disposed offsite to a regulated third party disposal site.

D. Oil Drilling and Workover Facilities

1. A blowout preventer (BOP) assembly and well control system is istalled before drilling below any casing string and, as required during workover operations. Yes
2. This BOP assembly is capable of controlling any expected wellhead pressure. Yes
3. Casing and BOP installations conform to state regulations. Yes

Name of Facility Banning Ranch - West Newport Field
Operator West Newport Oil Company

Agencies to Report Oil Spills

1.	National Response Center	800 – 424 – 8802 www.nrc.uscg.mil
2.	U.S. Coast Guard	673 – 0420
3.	State of California Office of Emergency Services	800 – 852 – 7550
4.	Division of Oil and Gas	714 – 816 – 6847
5.	Fish and Game Department	310 – 590 – 5132
6.	City of Newport Beach	640 – 2151
7.	Clean Coastal Waters	310 – 432 – 1415

Attachment A

West Newport Oil Company
Field Inspection Report

Date	Area Inspected	Findings	Inspector

Name of Facility Banning Ranch - West Newport Field

Operator West Newport Oil Company

Attachment B

West Newport Oil Company
Daily Inspection and Procedures

1. Visual inspection of wellhead and cellars.
2. Visual inspection of pipelines for leaks.
3. Visual inspection of tank farm areas for leaks.
4. Visual inspection of diesel storage tanks.
5. Visual inspection of wastewater tanks for oil accumulation and leaks.
6. Operators can use smell and sound for leak detection during daily inspections.

Name of Facility Banning Ranch - West Newport Field

Operator West Newport Oil Company

SPCC Plan Attachment #3

West Newport Oil Company
Facility Bulk Storage Tanks – Drainage System

Inspection Procedure :

- Operating conditions of the valves and pipelines will be checked semi-annually.
- Visual inspections of the rainwater for pollutants will be made before each drainage.

Record of drainage, bypassing, inspection, and oil removal from secondary containment:

Date of Drainage	Date of Bypassing		Date of Inspection	Oil Removed	Operator's Signature
	Open	Closed			

Name of Facility Banning Ranch - West Newport Field

Operator West Newport Oil Company