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OCCIDENTAL GEOTHERMAL PLANT NO. 1 COMPLIANCE PLAN

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OCCIDENTAL GEOTHERMAL PLANT NO. 1 COMPLIANCE PLAN

PART I: Introduction and General Provisions

Section 25532 of the Public Resources Code provides that the California Energy Commission (CEC) shall establish a monitoring system to assure that any facility certified is constructed and operated in compliance with air and water quality, public health and safety, and other applicable regulations, guidelines, and conditions adopted or established by the Commission or specified in the written decision on the application. The following plan is formulated to satisfy that directive for the Occidental Geothermal Plant No. 1.

The Commission's jurisdiction extends only to the power plant and related facilities, including the transmission tapline to the point of interconnection with the power grid. The Commission's jurisdiction does not extend to the steam gathering or reinjection system, the well pads and access roads thereto, or the steam wells.

Significant features of the plan include:

- o Utilization of delegate agencies, where possible, to monitor specific elements of the compliance plan;
- o Compliance verification of each condition by a qualified professional;
- o Periodic compliance reports to be filed by Occidental;
- o An annual compliance report to be filed by Occidental; and
- o A dispute resolution procedure.

Delegate Agencies

The Warren-Alquist Act provides the CEC with exclusive siting authority for thermal power plants and related facilities. To the extent permitted by law, the CEC will delegate authority for compliance verification to various state and local agencies who have expertise in subject areas where specific requirements have been established as a condition of site certification. In the event that a delegate agency is unwilling or unable to participate in this program, the CEC will establish an alternative method of verification.

Verification of Compliance

Verification of compliance with the terms and conditions of certification shall be accomplished either by periodic compliance reports filed by Occidental, or by appropriate letters from delegate agencies verifying compliance, or by auditing project records, or by inspecting the power plant site and related facilities.

Periodic Compliance Reports

Information required by the compliance plan to be submitted by Occidental to the CEC shall be filed as periodic compliance reports. These reports shall be filed at least once each quarter, numbered consecutively, and contain as a minimum:

- o The current project construction or operating status;
- o A listing of compliance plan requirements scheduled during the reporting period, with a corresponding description of the status of the requirement, i.e., completed, not started, or in progress;
- o For those compliance plan requirements which Occidental had expected to satisfy during the reporting period but which were not satisfied, include a statement of how and when Occidental intends to satisfy the requirement;
- o A listing of any changes to the compliance plan which have resulted from negotiations between Occidental and the CEC or its delegate agencies; and
- o Notification of any filings made with other governmental agencies having permitting authority over any aspect of the project.

Annual Compliance Report

Occidental will submit an annual compliance report to the CEC which will contain the information required by the compliance plan to be filed on an annual basis. An explanation will be provided for any missing information, including an estimate as to when the information will be provided. The annual report shall summarize the primary compliance activities during the previous year.

Compliance Auditor

The CEC shall designate a Compliance Auditor for the Occidental Geothermal Plant No. 1. The auditor will be responsible for implementing the approved compliance plan after certification, for maintaining the compliance record files, and for initiating the dispute resolution procedure.

All correspondence pertaining to Occidental Geothermal Plant No. 1 compliance matters should be addressed as follows:

Compliance Auditor (81-AFC-1C)
California Energy Commission (MS-2000)
1111 Howe Avenue
Sacramento, CA 95825

Noncompliance

Any person or agency may file a complaint alleging noncompliance with the conditions of certification. Such a complaint will be subject to review by the CEC and can result in proceedings pursuant to Title 20, California Administrative Code Article 4, Sections 1230, et seq.

Enforcement

The Commission's legal authority to impose legal sanctions for noncompliance is specified in Title 20, CAC Sections 1230 et seq. and PRC Sections 25531(c), 25532, 25534, and 25900 et seq. Moreover, delegate agencies, as set forth in this document, are authorized to take any action allowed by law in accordance with the delegate agencies' statutory authority, regulations, and administrative procedures, to ensure compliance with the terms and conditions of certification and applicable laws, ordinances, and standards.

CEC may exercise all administrative measures authorized by applicable law in the event of noncompliance.

Compliance Record

Occidental will maintain for the life of the project, files of all "As Built" documents referenced in this report. Staff of the CEC and delegate agencies will, upon reasonable notification, be given access to the files.

The CEC will maintain as a public record:

- o All attestments to the fulfillment of legal requirements;
- o All periodic and annual compliance reports filed by Occidental;
- o All documents relative to complaints of noncompliance filed with the CEC; and
- o All documents relative to this compliance plan brought before the Commission.

Confidential Information

Any information which Occidental deems proprietary shall be submitted to the Executive Director pursuant to 20 Cal. Admin. Code Section 2505(d). Any information which is determined to be confidential shall be kept confidential as provided for in 20 Cal. Admin. Code Section 2501 et seq.

Dispute Resolution Procedure

The following mediation procedure is designed to resolve informally, when possible, disputes concerning interpretation of compliance with the requirements of the Occidental Geothermal Plant No. 1 Compliance Plan. Either Occidental, the CEC, or any other party may initiate this procedure when time is critical in resolving a problem or when the alleged noncompliance does not appear significant enough to warrant a more formal investigation and proceeding.

The procedure is not intended to be a substitute for or prerequisite to the more formal complaint and investigation procedure specified in Title 20, California Administrative Code Sections 1230 et seq. Nor may the procedure be used to change the terms and conditions of certification as approved by the California Energy Commission.

The procedure encourages all parties involved in a dispute to discuss the matter and to reach an agreement resolving the dispute. If a matter cannot be resolved, then the matter must be referred to the Commission for consideration.

- o Request for Informal Investigation--Any individual, group, or agency may request the CEC to conduct an informal investigation of an alleged non-compliance with the CEC's terms and conditions of certification for the Occidental Geothermal Plant No. 1. All requests for an informal investigation shall be made to the CEC Compliance Auditor by either telephone or letter.

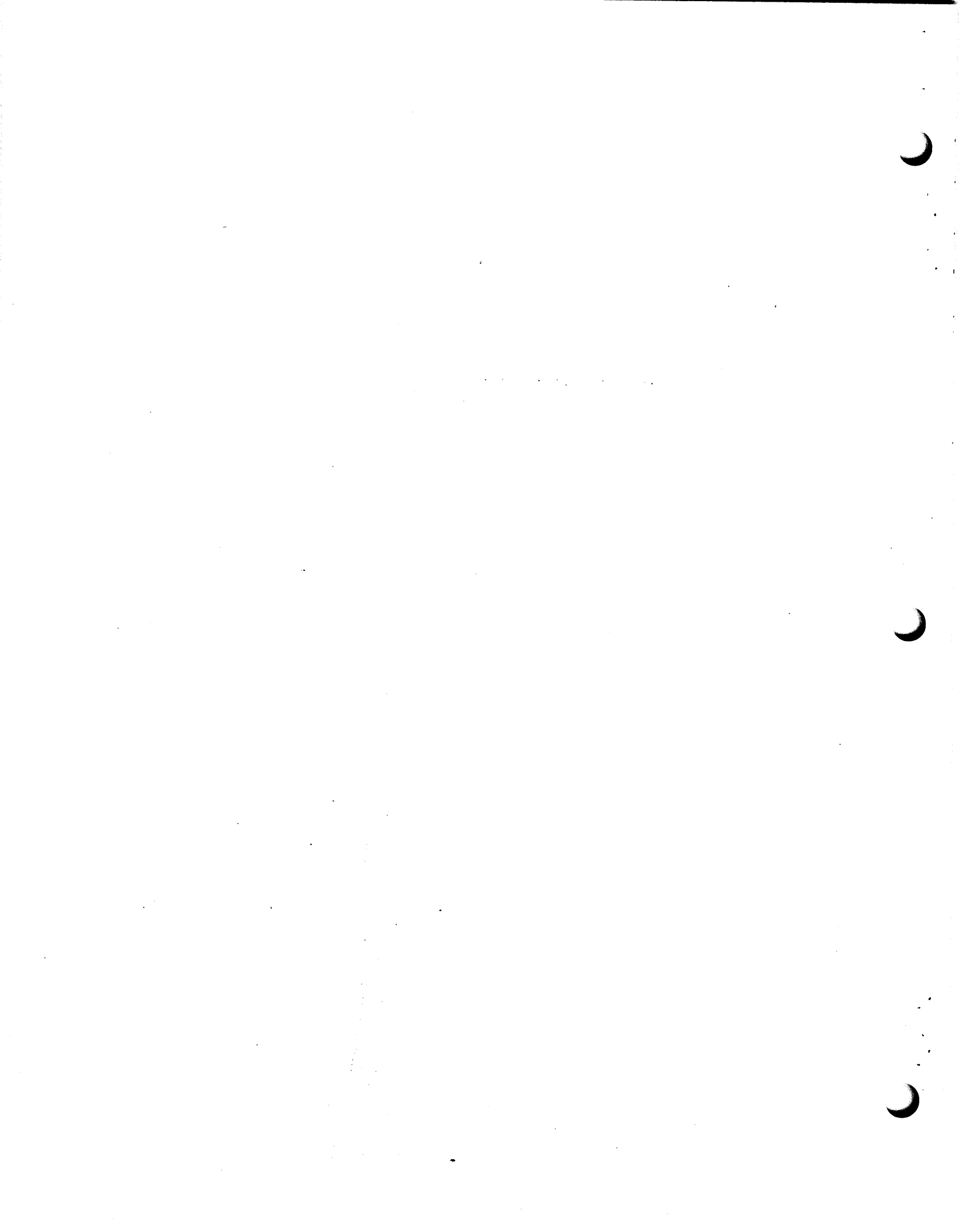
Upon receipt of a request for investigation, the compliance auditor shall promptly notify Occidental by telephone and subsequently by letter of the allegation. All known and relevant information of the alleged noncompliance shall be provided to Occidental and to the CEC staff. Occidental shall promptly investigate the matter and within seven working days shall provide a written report of the results of the investigation as well as all corrective measures undertaken to the compliance auditor and the person requesting such investigation. If the exigencies of the noncompliance demand otherwise, the compliance auditor may request Occidental to provide an initial report within 48 hours by telephone, followed by a written report filed within seven days.

- o Request for Informal Meeting--In the event that either the party requesting an investigation or the CEC staff is not satisfied with Occidental's report and investigation of the event, as well as the corrective measures undertaken, either may, by written request to the compliance auditor with a copy to Occidental, request a meeting with Occidental. Such request shall be made within 14 days of Occidental's filing of its written report as described above. Upon receipt of such a request, the compliance auditor shall:

1. Immediately schedule a meeting with the requesting party and Occidental to be held promptly at a mutually convenient time and place.
2. Secure the attendance of appropriate CEC staff and staff of any other agency with general jurisdiction and expertise in the subject area of concern.
3. Conduct such meeting in an informal and objective manner to encourage the voluntary settlement of any dispute in a manner which is fair and equitable to the interests of all parties.
4. Promptly after the conclusion of such meeting, prepare a memorandum which fairly and accurately sets forth the positions of all parties and any conclusions reached and distribute copies to all attendees.

- o Request for Commission Hearing--If either Occidental, CEC staff, or the party requesting an investigation is not satisfied with the results of said informal meeting, such party may, within ten working days, request in writing a hearing before the Committee of the Commission designated for the hearing of such matters. The Committee shall, upon receipt of a written request stating the basis of the dispute and the attempt at informal resolution thereof, grant a prompt hearing on the matter consistent with the requirements of noticing provisions and shall have authority to consider all relevant facts involved and make any appropriate orders consistent with its jurisdiction.

- o Appeal from Committee to Commission--Pursuant to 20 Cal. Admin. Code section 1215, Occidental, CEC staff, or the party requesting an investigation may request review of any committee order or decision.



Section 1. AIR QUALITY

A. Applicable Laws, Ordinances, Standards, and Practices

- o Lake County Air Pollution Control District Rules and Regulations, including but not limited to 411, 412, 421.2-A, 430, 510, and specifically 608 and associated emission limitation rules.
- o Clean Air Act and implementing federal regulations, and
- o California Health and Safety Code, Sections 40002 and 40701.

B. Requirements

- 1-1. The LCAPCD shall perform all duties and functions normally conducted by the APCD and shall have authority to issue a Permit to Operate, collect the permit fees, levy fines, order correction of operational or mechanical procedures or functions, and perform compliance tests. The established LCAPCD appeal procedures shall apply for all contested LCAPCD actions.

Verification: Occidental shall summarize in a periodic compliance report any interactions with the LCAPCD. Occidental shall immediately inform the CEC and ARB in writing of any formal appeals filed with the LCAPCD.

- 1-2. Occidental shall comply with the requirements specified in the Lake County Air Pollution Control District document entitled, "Determination of Compliance," dated July 28, 1981.

LCAPCD DOC Conditions, Dated July 28, 1981

Condition 1

Occidental shall install and operate the power plant and air emissions control system described in 80-AFC-1 in the manner necessary to limit H₂S emissions on a continuous basis from Oxy Geothermal Power Plant No. 1 to eight (8) pounds of H₂S per hour. This same emissions limitation shall apply during power plant outages, unless LCAPCD Rule 510 is complied with.

Condition 2

The hydrogen peroxide/catalyst, Stretford/surface condenser, drift eliminators, turbine bypass, dual generating units with shunt and multiple power source constituting the air emissions control system as proposed in 81-AFC-1 and amendments shall be the equipment used to satisfy the requirements of Condition 1. In the event that Occidental seeks to change the above equipment necessary to control H₂S emissions as proposed prior to operation, they shall request that the LCAPCD Hearing Board hold a public hearing to determine whether the alternate technology is capable of satisfying the requirements of Condition 1. The alternate technology may be used only if the LCAPCD Hearing Board and CEC determine that it is

capable of complying with Condition 1. All abatement systems shall be properly winterized and maintained to ensure proper and reliable functioning. Prior to construction, Occidental shall submit approved for construction drawings of the noncondensable gas and condensate H₂S abatement systems quantifying process flows and design capacities. If additional resource discoveries necessitate increased H₂S abatement capacity because of higher H₂S levels in the steam, such capacity shall be incorporated in the air emissions control system.

Condition 3

Occidental shall install, when practicable, continuous monitoring devices indicating total volume flow rates and H₂S concentrations at the following locations: (a) outlet of Stretford unit; and (b) in the treated condensate or in the circulating water upstream of the cooling tower. A log of such monitoring shall be maintained and made available to the LCAPCD staff upon request. The H₂S monitoring devices must have an accuracy of plus or minus 1 ppm, provide measurements at least every 15 minutes, and be readily accessible to LCAPCD staff. Flow rate measuring devices shall have accuracies of plus or minus 5 percent at 40 percent to 100 percent of the total flow rate, and calibrations must be performed at least quarterly. A Houston-Atlas or equivalent type instrument shall be acceptable for use in monitoring Stretford tail gas for H₂S. Calibration records shall be made available to LCAPCD staff upon request.

Alternatively a performance plan as specified in LCAPCD Rule 655 shall be developed to ensure operation in compliance with specified emissions limitations.

Condition 4

The power plant cooling towers shall utilize drift eliminators with a guaranteed drift rate of 0.001 percent or less and the Stretford cooling tower shall have a guaranteed drift rate of 0.002 percent or less.

Condition 5

Occidental shall provide safe access to sampling ports that enable representatives of the LCAPCD or ARB to collect samples from the treated condensate or the circulating water upstream of the cooling tower, cooling tower stacks, the noncondensable exit gas from the Stretford unit, and the direct off-gas vent.

Condition 6

At least 60 days prior to scheduled commercial operation of the second generating unit, Occidental shall submit to the LCAPCD for approval a detailed plan for testing the performance of the OXY Geothermal Plant No. 1's abatement system at normal full load operation. A copy of the plan shall also be sent to the ARB for comment. Normal full load for this purpose is defined as operating

at a minimum of 90 percent of the 1.6×10^6 lbs/hr steam flow capacity. This one time test shall incorporate tests for emissions from the cooling tower of components of potential concern in geothermal steam, including H_2S . The LCAPCO shall approve, disapprove, or modify the plan within 30 days of receipt from Occidental. Occidental shall complete the performance test approved by the LCAPCO within 90 days or as soon as possible following the date of commercial operation.

Condition 7

If a generic monitoring program for H_2S and/or other constituents of concern is initiated in The Geysers KGRA by responsible agencies (NSCAPCD, ARB, CEC, and LCAPCD), Occidental shall participate to the extent equitable with other parties in funding or causing to be performed such a program.

Condition 8

Occidental shall install and operate for one year in the Cunning Creek drainage a wet/dry deposition sampler and analyze a monthly composite of both wet and dry samples for soluble solids, boron, flouride, arsenic, silica, and mercury. The sampler utilized shall comply with or exceed the guidelines of the National Atmospheric Deposition Program.

Condition 9

Occidental shall perform biannual tests to determine the content of steam components as listed below upon written request of the LCAPCO and as required in the geothermal fluid transmission line permit. The continued need for such tests shall be reviewed after two years of operation. Copies of all tests shall be forwarded to the ARB and CEC. Such monitoring is not intended to be redundant.

STEAM CONDENSATE OR TOTAL STEAM

GAS PHASE

Ammonium (total)	Particulate mass in micrograms per kilogram of steam
Arsenic (total)	
Asbestos (total)	Arsenic from particulates above
Benzene	Lead from particulates above
Boron (total)	Cadmium from particulates above
Hydrogen Sulfide (total)	Sulfur from particulates above
Fluorides (total)	Mercury vapor
Mercury (total)	Total methane and nonmethane hydrocarbons

STEAM CONDENSATE OR TOTAL STEAM

GAS PHASE

Carbon dioxide (total)

Other nongases as indicated by condensate

Total dissolved solids

NESHAP pollutants as requested

Total suspended solids

Condition 10

Occidental shall file an application for a Permit to Operate with the LCAPCD within 90 days after the commercial operation date or as soon as possible thereafter and submit appropriate permit fees. The application shall include the results of the performance test referenced in Condition 6.

Condition 11

Occidental shall issue quarterly reports to the LCAPCO detailing a) hours of operation; (b) any periods of significant abatement equipment malfunction, reasons for malfunctions, and the corrective action; (c) types and amounts of chemicals used for condensate treatment; (d) periods of scheduled and unscheduled outages and the cause of the outages if known; (e) a summary of any irregularities that occurred with the continuous emission monitors, if used; and (f) if any, the dates and hours in which Oxy Geo #1 H₂S emission rate was in excess of the emissions limitations specified in Condition 1.

Condition 12

Occidental shall allow authorized representatives of the LCAPCD and ARB to enter the premises where the source is located, within one hour of notification, to inspect the plant for compliance with the conditions of this Determination of Compliance.

Condition 13

Occidental shall comply with all applicable federal, state, and local laws, standards, and ordinances in the operation of Oxy Geo #1.

Verification: Occidental shall annually request a letter from the Lake County Air Pollution Control District verifying the status of Occidental's compliance with the conditions of the Determination of Compliance. Occidental shall provide the CEC with a copy of this letter in the annual compliance report. In addition, Occidental shall provide [REDACTED]

- 1-3. Occidental shall obtain written approval from both LCAPCD and CEC before using any equipment other than the hydrogen peroxide/catalyst, Stretford/surface condenser and dual turbine/turbine bypass system, as proposed in the AFC to control H₂S emissions.

Verification: Occidental shall file a copy of the written approval from the LCAPCD with the CEC prior to beginning construction of any alternative H₂S emissions abatement system.

- 1-4. Occidental shall submit approved-for-construction drawings of the power plant secondary H₂S control system to the CEC only if requested by the CEC.

Verification: If requested, such drawings shall be submitted by Occidental to the CEC at least 30 days prior to commencing construction of the system.

- 1-5. DOC Conditions 3 and 6 require submittal of a detailed test plan for testing the performance of the Oxy Geothermal Plant #1 H₂S emissions abatement systems at normal full load operation. If continuous H₂S monitors are available, Occidental shall ensure that the detailed plan includes the following test parameters: (1) the test data shall reflect a minimum of 30 days (not necessarily consecutive days) operation at a minimum of 80 percent of the gross electricity generating capacity, and (2) in the event that at least 30 days of qualifying data could not be obtained during the 90-day test period specified in the Determination of Compliance, Occidental shall continue to collect test data until the required information has been obtained. (The application for a Permit to Operate shall be filed as specified in DOC Condition 10 and need only include the results of the performance test conducted during the initial 90 days of commercial operation.)

Verification: Occidental shall provide the CEC with a copy of the detailed plan submitted to the LCAPCD for review and approval and a copy of the plan as approved. In addition, if the test period extends beyond the initial 90 days after commercial operation, Occidental shall file a supplementary report with the CEC and the LCAPCD which reflects all the results of the performance test.

- 1-6. Occidental shall, if requested by the Lake County Air Pollution Control District, operate and maintain an on-site meteorological station capable of determining wind direction, wind speed, and temperature.

Verification: Occidental shall furnish such data in a form acceptable to the LCAPCD. The submittals shall be noted in periodic compliance reports filed with the CEC.



Section 2. PUBLIC HEALTH

A. Applicable Laws, Ordinances, Standards, and Practices

- o California Administrative Code Title 17, Section 30355.
- o California Health and Safety Code Section 25607.
- o Public Resources Code Section 25532.

B. Requirements

- 2-1. Occidental shall quarterly sample and analyze radon-222 concentrations in noncondensable gases entering the power plant in the incoming steam line, or vent off-gas line, or H₂S abatement off-gas line in accordance with the most recent California Department of Health Services, Radiologic Health Service (CDHS/RHS) requirements for radon-222 monitoring and reporting.

This radon-222 steam monitoring program will be conducted for at least the first three years of commercial operation. If monitoring results indicate that the radon-222 release from Oxy No. 1 is well within applicable standards, the monitoring program may be modified, reduced in scope, or eliminated, provided Occidental obtains the permission of CDHS/RHS. As new information and techniques become available, with concurrence of Occidental and CDHS/RHS, changes may be made to the program or the methods employed in monitoring radon-222.

Verification: During the first year of commercial operation, Occidental shall provide the CDHS/RHS with the results of the quarterly sampling within 30 days after sample collection. After the first year of commercial operation, Occidental shall provide the CDHS/RHS with an annual report summarizing the quarterly sampling results. The annual report will comply in format and content with the most recent CDHS/RHS reporting requirements.

- 2-2. If the radon-222 concentration exceeds 3.0 picocuries per liter (pCi/l) in the cooling tower exhaust, Occidental must inform the CDHS/RHS with a special report.

Verification: Occidental shall provide a written report to CDHS/RHS of sample results within 30 days of confirming an exceedance of 3.0 (pCi/l) radon-222 in the cooling tower exhaust.

- 2-3. If the radon-222 concentrations exceed 6.0 pCi/l in the cooling tower exhaust, Occidental shall notify the CDHS/RHS and the CEC by telegram or telephone upon confirmation of the sample result. Confirmation includes re-analyzing the sample by Occidental or another qualified laboratory. The confirmation procedures used shall be the same as the routine analysis, but may include sending samples to

CDHS/RHS or other qualified laboratories for analysis. Sample result confirmation must be accomplished in the quickest possible manner and should take less than five calendar days.

Verification: Occidental shall notify CDHS/RHS and the CEC within 24 hours of confirming the sample results. Occidental shall provide a special report to CDHS/RHS and the CEC outlining corrective actions taken.

- 2-4. Occidental shall develop and perform a quarterly steam analysis for ammonia, arsenic, mercury, boron, fluoride, silica, and benzene. The quarterly steam analysis program, developed in consultation with CDHS, shall commence within 45 days after commercial operation of Oxy No. 1 and shall run for 2 years. The analysis shall be conducted quarterly for the first year and semiannually for the second year.

Verification: Occidental shall submit a written report to CEC and CDHS within 30 days of the analysis.

- 2-5. Occidental shall participate in the SMUDGE0 #1 ambient air monitoring program or a generic ambient air monitoring program for establishing baseline ambient concentrations of mercury, arsenic, ammonia, vanadium, benzene, and silica at the Anderson Springs Recreation Center. The program shall be developed in consultation with California Air Resources Board (CARB), CDHS, and CEC.

Verification: Occidental shall provide CDHS and the CEC with a written report providing baseline ambient concentration measurements no later than the start of commercial operation.

- 2-6. The CEC shall arrange meetings with Occidental, CARB, CDHS, and other interested parties for determining significant ambient air concentration guidelines for use in the Oxy No. 1 monitoring program for mercury, arsenic, ammonia, vanadium, radon-222 and its daughters, and silica.

Verification: The CEC shall notify Occidental, CARB, CDHS, and other interested parties of a tentative meeting date, location, and agenda.

- 2-7. After one year of power plant operation, Occidental, CEC, LCAPCO, and other appropriate agencies shall evaluate the need for mass balance measurements and calculations for mercury and arsenic. This evaluation shall consider incoming steam quality data, ambient air quality monitoring results, and the accuracy of mass balance methods. If the foregoing evaluation indicates mass balance measurements are appropriate and if the state-of-the-art for mass balance calculations will allow statistically reliable results, Occidental shall conduct mass balance analysis for mercury and arsenic.

Verification: If a mass balance measurement program is found to be appropriate, Occidental shall submit a written report to CEC within 30 days after completing the measurements. The program results will be evaluated by CEC and CDHS to determine requirements, if any, for continuation of a mass balance measurement program.

- 2-8. For one year prior to and for one year after commencement of power plant operation, Occidental shall monitor quarterly in Gunning Creek downstream of the project area the constituents listed in the proposed Brown and Caldwell water quality monitoring program entitled, "Scope of Work for Baseline Water Quality Monitoring, Occidental Geothermal Leasehold, Lake County," (May 1981) plus benzene, vanadium, oil and grease, and the aqueous constituents in Table 2 of the program. Data from the first year's monitoring after commencement of operation shall be evaluated by Occidental, CEC, and other appropriate agencies, in relation to baseline data, and a decision will be made by the CEC as to the necessity of continuing monitoring for some or all the constituents.

Verification: Occidental shall forward to CEC and the Lake County Health Department copies of analyses performed.

- 2-9. Occidental shall design a plan for providing bottled water to the Anderson Springs community in the event of a water pollution incident related to the Occidental project. This plan shall include (1) the method for identifying and reporting water pollution incidents, (2) the method for providing bottled water to the Anderson Springs community, and (3) a provision for noticing the Anderson Springs residents. The notice shall describe:

- o The agency or person responsible for determining the need for providing bottled water or short-term notice in the event of a water pollution incident.
- o The method for determining need and notifying affected water consumers.
- o The way in which residents may obtain bottled water.
- o Provisions for consumers initiating the bottled water response if they first detect a contamination problem (particularly outside of normal working hours).

The plan shall be reviewed and approved by the CEC and Lake County Health Department.

Verification: Occidental shall submit a copy of the proposed plan to the CEC and Lake County Health Department no later than 60 days after certification.

- 2-10. Occidental shall implement the provisions of the approved plan to provide bottled water to the Anderson Springs community in the event of a water pollution incident related to the Occidental project,

until an alternative water supply system has been established for Anderson Springs.

Verification: Occidental shall immediately notify the CEC and the Lake County Health Department when the plan is implemented.

- 2-11. Occidental shall, in accordance with the terms negotiated between Occidental and Lake County, provide payment of up to \$100,000 to Lake County for its use to design and install a water supply system intended to mitigate immediate risks to public health in the event of a pollution incident in Gunning Creek. If within one year of certification, Occidental has not paid Lake County the amount negotiated above, then Occidental shall pay the Anderson Springs Community Services District (ASCSD) an amount, not to exceed \$100,000, determined by ASCSD to be necessary for designing and installing an intake and storage tank system, or at the district's discretion, as a contribution towards construction of a permanently enclosed system.

Verification: Occidental shall provide the CEC proof of payment to Lake County or the Anderson Springs Community Services District within 30 days of the payment.

Section 3. SOCIOECONOMICS, LAND USE, AND TRANSPORTATION

A. Applicable Laws, Ordinances, Standards, and Practices

- o Warren Alquist Act, Public Resources Code Section 25003, 25523, and 25528.
- o Lake County General Plan--Land Use Element.
- o Lake County Zoning Ordinance (Chapter 21, Lake County Ordinance Code)

B. Requirements

3-1. Occidental shall pay the sum of \$6,500 per student for the total number of students enrolled in the intervening school districts attributable to the project to be calculated as follows, less any sums paid in previous years:

- o If at least one parent of any student owns or is employed by a power plant developer or a power plant construction contractor or subcontractor and if such employment is primarily on the site of or primarily connected to the power plant; or if such parent owns or is employed by any other business firm and, within the course and scope of said employment, is primarily on the site of or primarily connected to the power plant; and if such power plant is Oxy Geothermal Project No. 1, then said sum of money shall be paid for each such student.
- o If at least one parent of any student owns or is employed by an off-site of multiple-site firm whose operations are primarily involved in providing services for construction and/or operation of geothermal power plants and if the Oxy Geothermal Project No. 1 is among the projects serviced by any such firm, the Applicant shall pay 5 percent of the specified sum for each such student.
 - Service for construction and/or operation of geothermal power plants includes, but is not limited to, the following: waste disposal, water supply, trucking and other transportation, heavy equipment operation, and equipment maintenance and repair.
 - The use of "primarily" in the survey shall mean "50 percent or more."
 - In the fourth and eighth years of the survey, the definition of "primarily" and the formula for the project's pro-rata share of the impacts of off-site or multiple-site firms shall be open to negotiation between the Applicant and the Lake County school districts if either party, in a written notice to the other, claims the definition or formula to be incorrect.

- o The money shall be paid by the Applicant within 60 days following the presentation to the Applicant of the annual survey results and shall be paid to the Lake County Superintendent of Schools on behalf of the intervening school districts according to their pro rata shares of the students identified in the survey.
- o Any disputes arising from these conditions may be submitted at the request of either party to the Commission under the Commission's Compliance and Monitoring dispute resolution procedures or an alternative dispute resolution procedure mutually agreed to by the parties and the Commission.

Verification: Occidental shall submit to the Commission an annual report for a period of 10 years from the date of certification of the AFC identifying:

- o The results of the Lake County Office of Education student survey showing the number of students attributable to the Occidental project.
- o The amount paid to the Lake County Superintendent of Schools to mitigate the impact.
- o Any disputes arising from condition 3-1.

- 3-2. Occidental shall participate, as part of the group of major road users, in the upgrading and improvement of Socrates Mine Road.

Verification: Occidental shall provide the CEC a copy of the signed agreement between the County of Lake and the other participants, including Occidental, for the upgrading and improvements to Socrates Mine Road.

- 3-3. Occidental, in order to mitigate potential conflicts between truck and school traffic, will make every effort to schedule truck trips so as to avoid school bus schedules.

Verification: Occidental will notify the CEC of its efforts, the results, and any agreements to schedule truck traffic so as to avoid school bus schedules.

Section 4. CULTURAL RESOURCES

A. Applicable Laws, Ordinances, Standards, and Practices

- o National Historic Preservation Act of 1966 and implementing Federal regulations (16 USC 470 et seq.; 36 CFR 800 et seq.).
- o Public Resources Code, Section 5097.9 et seq.

B. Requirements

- 4-1. Occidental shall designate a qualified geological or paleontological specialist who will be available prior to and during the site preparation and construction activities for the Occidental Geothermal Plant No. 1.

Verification: Occidental shall provide the CEC with the names and telephone numbers of the designated geological or paleontological specialist at least 30 days prior to the start of any construction activities.

- 4-2. If an excavation of more than four meters in depth is required in an area of Franciscan melange, a field check shall be made after the excavation by the designated geologist or paleontologist to determine whether any significant fossil bearing chert was uncovered. The designated specialist shall evaluate the extent and significance of the resource and propose mitigation measures necessary for its protection.

Verification: Occidental shall notify the CEC within 24 hours of the geological or paleontological specialist's resource evaluation if significant fossil resources are present. Should mitigation be required to protect the resource, representatives of Occidental, the CEC, and the Ukiah office of the BLM shall meet with the designated specialist within one working day of this notification to discuss proposed mitigation measures. Pending resolution of this matter, construction activity and excavation in the resource area will cease.

- 4-3. Occidental shall designate a qualified archaeological specialist who will be available prior to and during site preparation and construction activities for the Occidental Geothermal Plant No. 1.

Verification: Occidental shall provide the CEC with the name and telephone number of the designated archaeological specialist at least 30 days prior to the start of any construction activities.

- 4-4. To mitigate any possible adverse impacts upon the identified archaeological site, CA-LAK-711, Occidental shall comply with the following mitigation measure and such other measures as may be necessary in the judgment of Occidental's designated archaeological specialist:

- o Occidental will protect archaeological resource site CA-LAK-711 by a buffer zone established around its perimeter. As described in the Preliminary Development Plan (revised January 29, 1981), prepared by Veizades and Associates, San Francisco, California for Geysers Federal 5 and 6, Lease Serial Nos. CA 5636 and CA 5637, the buffer zone shall be a minimum of 200 feet (65 meters) in width. Where this width would interfere with existing developments (such as access roads or well pads) the buffer zone shall extend from the perimeter of the resource site to the near limits of the developed area.

Verification: Occidental shall submit to CEC a statement from the designated archaeological specialist verifying compliance with the mitigation measures for site CA-LAK-711. This statement shall be filed prior to the start of construction.

- 4-5. To mitigate any possible adverse impacts on previously unidentified historic or archaeological resources/sites which are discovered or unearthed during construction, work in the immediate area will be halted, and the archaeological specialist will be consulted to evaluate the resource. For archaeological resources, the archaeologist shall consult with appropriate Native Americans to determine the ethnographic significance of the resources.

Verification: Occidental shall notify the CEC within 24 hours of the resource discovery and the work stoppage. Representatives of Occidental and the CEC shall meet with the designated specialist within one working day of this notification to discuss the possible significance of the resources and the proposed mitigation measures. Pending resolution of this matter, construction activity in the resource area shall remain stopped.

Section 5. BIOLOGICAL RESOURCES

A. Applicable Laws, Ordinances, Standards, and Practices

- o Warren-Alquist Act (Public Resources Code §§ 25003 and 25523).
- o Federal Endangered Species Act of 1973 and implementing regulations.
- o Ecological Reserve Act of 1963 and implementing regulations (Fish and Game Code §§ 1580 through 1584).
- o California Species Preservation Act of 1970 (Fish and Game Code §§ 900 through 903).
- o California Endangered Species Act of 1970 (Fish and Game Code §§ 2050 through 2055).
- o Fully Protected Species Act (Fish and Game Code §§ 3511, 4700, and 1600 et seq.).
- o Geothermal Steam Act of 1970 and implementing federal regulations [30 USC 1001 - 1015 and CFR 270.34(k)].
- o Native Plant Protection Act (Fish and Game Code §§ 1580, 1755, 1756, and 1760 through 1763).

B. Requirements

- 5-1. Occidental shall have an appropriately trained biologist on site as needed to ensure that biological mitigation measures are properly implemented and to assure that inadvertent biological damage is avoided. If adverse biological impacts are imminent, work in the immediate area shall cease until corrective measures can be taken.

The designated biologist will advise the supervising construction engineer of details concerning required mitigation prior to need for implementation and shall supervise, as necessary, construction activities to ensure proper implementation of all compensation/mitigation measures. The supervising construction engineer will act, on the advice of the designated biologist, to correct, or temporarily halt, construction or construction practices which are not in conformance with the compensation/mitigation plan or the terms and conditions of AFC approval or which are necessary to protect biological resources until corrective action can be taken. If any specific mitigation measure or monitoring program is not implemented, is done incorrectly, or is determined to be ineffective, Occidental, in consultation with CEC and CDFG, will take action to correct the problem.

Verification: Prior to construction, Occidental shall provide the CEC and the California Department of Fish and Game Region 3 Office in Yountville with the name and telephone number of at least one

biologist who will be on site as needed to monitor construction activity. The designated biologist shall inform the CEC by telephone, as soon as possible, if he notices activities which may threaten biological resources and shall follow with a written report within 10 days to describe the problem and corrective actions taken.

Occidental shall submit a semiannual statement of progress to the CEC and the CDFG indicating the various phases of the mitigation/compensation program that have been completed and the progress of ongoing measures.

- 5-2. Occidental will implement the biological mitigation measures outlined in the AFC (pp. 5-62 through 5-67), Responses to Data Requests (dated March 20, 1981, and May 18, 1981), and other submittals from Occidental [Proposed Scope of Work for Aquatic Monitoring, dated May 18, 1981; Monitoring and Mitigation Plan, dated August 1981; and additions to proposed mitigation measures discussed at Issues Hearing of June 15, 1981 (Transcript pp. 311 - 328)].

These mitigation measures include the following:

- o Construction activities will be restricted to the area indicated on engineering drawings (No. 13876-EY-3A-C) and shall not be exceeded without approval of the CEC.
- o No disturbance shall be allowed in the serpentine barrens area. The biologist shall establish a buffer zone around the barrens. Fences shall be placed along the boundary of any activity that occurs near the buffer zone to serve as a warning to construction workers.
- o No mass-grading shall take place during the wet season (November - March) without the written approval of the Lake County Building Department.
- o Hydromulch and seeding of native shrubs will be completed in time to ensure that seeds sprout and become established prior to the rainy season.
- o The establishment of vegetation ground cover shall be promoted by regular irrigation until natural rainfall levels provide adequate moisture.
- o The hydromulch seed mixture used by the revegetation contractor shall be checked by a qualified biologist to confirm that hydromulch specifications are met. Percent seed composition for any commercial premixed seed mixtures will be checked by counting the relative proportions of seeds in a series of random samples.
- o No construction shall be allowed within 235 feet of Anderson Creek.

- o The plant site shall be bermed to control accidental spills.
- o Following each storm episode for the first winter, erosion control measures will be inspected to verify their effectiveness.
- o Erosion control measures which are damaged during storms shall be repaired as soon as possible, but in no case shall repair be delayed more than 10 days.
- o Wildlife habitat enhancement measures, including prescribed burns and snag protection, shall be implemented in accordance with the provisions of the Monitoring and Mitigation Plan, dated August 1981. These measures shall be continued on an annual rotational basis for the life of the power plant.

Verification: Occidental's biologist shall inform the CEC and the CDFG in writing no later than 10 days after completion of berm construction, construction of protective fences along the serpentine barrens, planting of native species and hydromulch of bare slopes, installation of mechanical erosion measures, and implementation of wildlife enhancement measures. The other provisions of this section need be reported only where violation of the requirement has occurred. In this case the CEC shall be informed as soon as possible by telephone and a written report shall be submitted within 10 days of the incident.

- 5-3. Occidental shall monitor for two years changes in the aquatic biota of Anderson and Gunning creeks either as a full participant in the Aquatic Resource Monitoring (ARM) program or, in the event ARM does not begin actual monitoring by December 31, 1981, through its own aquatic monitoring program, which shall be similar in cost and purpose to the ARM program.

Verification: Data from Aquatic Monitoring Stations shall be presented to the CEC and the CDFG in quarterly reports.

- 5-4. Occidental shall monitor drift effects on the vegetation surrounding the power plant. Monitoring shall be conducted for one year prior to operation, annually for the first three years of operation, and then at five-year intervals for the life of the power plant. Monitoring shall include large-scale (not smaller than 1:3000) false color infrared photographs (one stereo pair), taken in June, coupled with ground sampling at permanent study plots. Ground sampling will include examination by a qualified biologist for visible foliar injury and collection of foliar samples which will be analyzed for boron content at a qualified laboratory.

Verification: Occidental shall submit annual reports to the CEC in those years in which the monitoring takes place. These reports shall include copies of all laboratory analyses, field survey work, and a stereo pair (full color copy) of aerial photographs of the leasehold.

- 5-5. Occidental shall implement the following ringtail mitigation measures on its leasehold: begin clearing of vegetation by April 15 or wait until after July 1 in order to avoid disturbing denned ringtails during the birthing period, and protect undisturbed riparian areas by not constructing within such areas.

Verification: Occidental shall inform CEC 10 days prior to the start of vegetation clearing. CEC may, at its option, be present during clearing operations.

- 5-6. Occidental shall conduct a field study for one year using trapping and radio telemetry to document the population size and home range of ringtails on the leasehold and locate ringtails during construction. Construction activities shall avoid areas where animals are known to be present based on radio telemetry.

Occidental or its consultant shall conduct the field study in the following manner:

- o The period of study shall be for no more than two years, the first year to begin one month prior to the start of construction, the second year, depending on whether Occidental implements additional mitigation measures, to begin after the start of power plant operation.
- o All field methods, including trapping, animal handling, scat analysis, and use of radio telemetry, shall be patterned after those methods used in the Koch and Brody study.
- o The trapping effort shall be approximately 600 trap nights per quarter.

The CEC in consultation with the Department of Fish and Game shall approve all plans for the field study.

Verification: Occidental shall submit the names of contractors selected to conduct the study no later than February 15, 1982. A written study plan outlining all aspects of the ringtail field study shall be submitted to CEC no later than February 18, 1982. CEC may, at its option, be present during the field study. The field study shall begin no later than March 10, 1982, as shall be evidenced by written notice to CEC.

Occidental shall report, in writing to CEC, the results of this first segment of the field study by June 1982. Occidental shall submit a written report on the result of the field study by May 1983 and shall in the same communication describe the design of any further mitigation measures which will be employed.

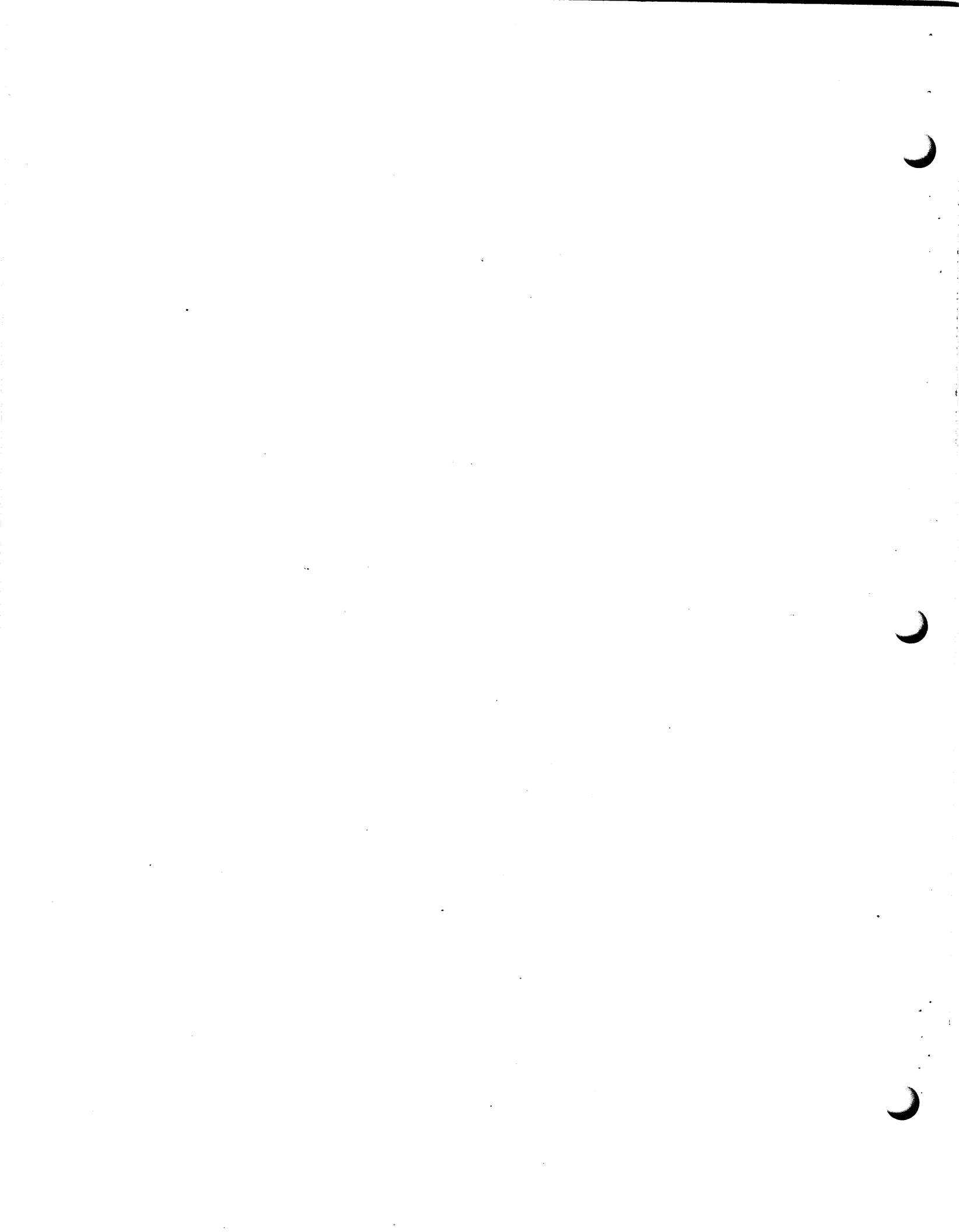
- 5-7. If after one year the field study fails to document the ringtail occurrence on the leasehold, Occidental shall have no further obligation with respect to mitigation measures for ringtails. If, on the other hand, the field study shows the occurrence of one or more

ringtail on the leasehold, Occidental shall, with the approval of CEC, implement as soon as possible after completion of the first year's study mitigation measures as follows:

- o Construction and maintenance of a reasonable number of den sites in areas away from the power plant site where ringtail are likely to occur. The CEC and the Department of Fish and Game, in consultation with the Applicant, shall determine the reasonable number of den sites based on data from the first-year field study.
- o Establishment on disturbed soils near riparian areas of additional native plants, e.g., wild berries, grapes, and roses, which are known to comprise part of the ringtail's diet; and
- o Other mitigation measures as agreed to by CEC and Occidental. Mitigation measures will be designed based upon review of data from the first year's study and in consultation with experts, including the Department of Fish and Game.

In addition to implementing the above measures, Occidental shall resume the field study for one year beginning after the start of power plant operation. The same field methodology as in the first-year study shall be used. The purpose of the second-year field study shall be to determine whether or not artificial den sites are being used and thus the need to continue maintaining these structures for the life of the power plant. In conducting the second-year field study, the Applicant shall note any increase or decrease in population size during the course of the study and note whether artificial den sites are being used by ringtails.

Verification: Occidental shall provide an on-site inspection tour for CEC and Fish and Game personnel to demonstrate the implementation of den sites and plantings of native food plants. Occidental shall provide a written report on the results of the second year of study to CEC not later than six (6) months following completion of the second-year field study.



Section 6. WATER QUALITY, HYDROLOGY, AND WATER RESOURCES

A. Applicable Laws, Ordinances, Standards, and Practices

- o 30 Code of Federal Regulations (CFR) Part 270 ("Geothermal Resource Operations on Public, Acquired and Withdrawn Lands")--Authority: Geothermal Steam Act enacted December 24, 1970 (84 Stat. 1366, 30 USC 1001-1025).
- o 30 CFR, Part 271 ("Geothermal Resource Unit Plan, Including Suggested Forms").
- o 40 CFR, Part 146 ("Underground Injection Control Program: Criteria and Standards").
- o 40 CFR, Part 252 ("Standards Applicable to Generation of Hazardous Waste").
- o 43 CFR, Part 3200 ("Geothermal Resource Leasing; General Authority").
- o Title 23, California Administrative Code (2150 et seq.), Chapter 3, Subchapter 3 (State Policy for Water Quality Control), and Division 7.5, Chapter 1. (Liquid Waste Haulers).
- o Title 23, California Administrative Code ("Porter-Cologne Water Quality Control Act"), Article 4 ("Waste Discharge Requirements") Section 13000 et seq.
- o Central Valley Regional Water Quality Control Board Order No. 79-228 ("Waste Discharge Requirements for Occidental Geothermal, Inc. and United States Bureau of Land Management USA Lease CA 5637, Lake County").
- o Water Quality Control Plan, Sacramento River Basin (5A).
- o County of Lake Use Permit 80-25, Occidental Geothermal Site "B."

B. Requirements

- 6-1. Occidental shall monitor stream flow and turbidity at 6-minute intervals and shall monitor suspended sediment when water stage or flow increases more than 25 percent above the average of the previous 5 days flow on Anderson Creek as measured at the first county highway bridge below the recreational pond in the community of Anderson Springs.

Verification: Occidental shall supply to the CEC monthly (month-by-days) and annual (month-by-days) summaries of streamflow (cubic feet/sec and acre-feet), turbidity (Jackson or Nephelometric Turbidity Units), and suspended sediment (milligrams per liter and tons per day). CEC shall also be allowed access to the original records to make further analyses as required.

- 6-2. Occidental shall comply with the waste discharge requirements of CVRWQCB Order No. 79-228.

Verification: The CVRWQCB will verify compliance with Order No. 79-228.

- 6-3. Occidental shall monitor baseline water quality on the Occidental leasehold in compliance with the data collection requirements of the Geothermal Steam Act of 1970 and in accordance with Scope of Work for Baseline Water Quality Monitoring, Occidental Geothermal Leasehold, Lake County, prepared by Brown and Caldwell as approved by the United States Geological Survey. Occidental shall supplement the Brown and Caldwell parameters for quarterly surface water quality sampling by the addition of analyses for arsenic, mercury, chromium, and oil and grease. Occidental shall also supplement analyses of geothermal fluids and gases with analyses for silica and mercury in the gaseous state.

Verification: Occidental shall forward to CEC copies of analyses performed and provided to the United States Geological Survey in a format which complies with the Geothermal Steam Act of 1970.

- 6-4. If Occidental employs a hydrogen peroxide secondary H₂S abatement system, Occidental shall ensure that the hydrogen peroxide and catalyst will be stored within the bermed area of the plant site. Any other chemicals which may be used in an alternative secondary abatement system shall be stored within the bermed area of the plant site.

Verification: The storage facilities for any chemicals stored for the secondary abatement system will be reflected in the final design plans and "as-built" drawings submitted to the Lake County CBO.

- 6-5. To prevent spills of Stretford process material from leaving the immediate vicinity, Occidental shall surround the H₂S abatement process area with an impermeable concrete barrier. Spilled Stretford process material shall be drained to a sump where it will be pumped to a chemical storage tank for reuse in the Stretford process or for disposal off site at an approved Class II-1 solid waste disposal site.

Verification: Occidental shall submit final design plans and "as-built" drawings to the Lake County CBO incorporating this design requirement.

- 6-6. To prevent spills of condensate and other materials from leaving the site, Occidental shall construct an impermeable concrete or asphaltic concrete retention barrier around the plant. Occidental shall also pave the site, except the switchyard, with two inches of asphaltic concrete and attain a permeability of at least 1×10^{-6} cm/sec. As a result of this construction, the paved area of the plant site will serve as a spill retention basin.

The proposed retention basin shall be designed to retain at least twice the maximum condensate spill expected to occur before plant personnel can correct the cause of the spill. In addition, the design shall accommodate the runoff from a 30-minute 100-year storm.

Storm water sumps shall be equipped with 100 gallon per minute pumps to return spilled material to the cooling tower basin for reinjection. Should a spill occur which exceeds the capacity of the pumps, Occidental plant personnel shall use portable pumps to remove excess materials.

Alarm systems will notify plant operators when a spill has occurred and when the catch basin pump has started. Occidental plant personnel shall respond to the alarms within 30 minutes and take measures necessary to correct the problem.

Verification: Occidental shall submit final design plans and "as-built" drawings to the Lake County CBO incorporating this design requirement for the 1×10^{-6} cm/sec permeability of the pad layer. In addition, the plant superintendent shall file a statement with the CVRWQCB and the CEC at the start of the operations verifying that plant personnel are trained and prepared to handle spills.

- 6-7. Occidental shall ensure that rainwater entering the Stretford process area will not enter surface water or groundwater. The rainwater shall be used in the Stretford process or pumped to the cooling tower overflow structure.

The steam condensate from the plant shall be used for cooling water, with any excess reinjected into the geothermal reservoir.

Verification: Occidental shall submit final design plans and "as-built" drawings to the Lake County CBO incorporating this design requirement.

- 6-8. To minimize the potential adverse impacts of storm runoff on the water quality of Anderson Creek, Occidental shall route plant site runoff to the cooling tower basin for subsequent injection into the geothermal reservoir. When the capacity of the return system is exceeded, the runoff will be released into Anderson Creek. Under such conditions, the impacts on water quality should be minimal due to pollutant material dilution from heavy rainfall.

If storm runoff is released from the power plant site, Occidental shall satisfy the intent of Basin Plan (5A) plus any applicable requirements of the CVRWQCB.

Verification: Occidental shall submit final design plans and "as-built" drawings to the Lake County CBO incorporating this design requirement. In addition, Occidental shall notify the CEC when the CVRWQCB has approved Oxy's plan.

- 6-9. Occidental shall dispose of domestic waste water by injection into the reinjection system. The waste will be treated in a packaged treatment plant to remove solids and discharged to the reinjection line at a point between the cooling tower basin and the reinjection well.

Verification: Occidental shall obtain an in-lieu sanitation permit in accordance with Lake County ordinance and shall provide final design plans and "as-built" drawings to the Lake County CBO incorporating this design requirement for the domestic waste disposal system.

- 6-10. Occidental shall utilize condensed steam for cooling water purposes; acquire an outside source for freshwater supplies, and utilize annually approximately 3.6 million gallons (12 acre-feet) of water for construction. Occidental shall not use water from Anderson or Gunning creeks, their tributaries, springs, observation wells, or exploratory drill holes in the area unless such water can be obtained without adversely impacting the biota or the drinking water supplies of local residents. Sources in the Anderson/Gunning creeks watersheds shall not be used without first obtaining approval from the Anderson Springs Water Company Manager, CEC, and the United States Geological Survey DCM for Geothermal in consultation with the Bureau of Land Management and Lake County Planning Department.

Verification: Prior to the start of construction of the power plant and the transmission line, Occidental shall provide the CEC with a periodic compliance report listing the sources of water for construction activities. Occidental shall submit subsequent reports to the CEC showing:

- (a) The source and amount of cooling tower basin start-up water,
- (b) The source, means (appropriation, purchase), and amount of freshwater supply for in-plant uses and irrigation, and
- (c) The source, amount, means, and schedule of use for the construction water supply for the power plant and the transmission line.

Section 7. GEOTECHNICAL/SEISMIC HAZARDS

A. Applicable Laws, Ordinances, Standards, and Practices

- o Business and Professions Code 7835.
- o Uniform Building Code, Chapters 29 and 70.
- o Good engineering practice.

B. Requirements

- 7-1. Occidental shall assign a qualified geotechnical engineer to monitor compliance with design intent in geotechnical matters, to provide consultation during the design and construction of the project, to make professional geotechnical judgments related to actual site design conditions, and to recommend field changes to the responsible civil engineer.

Verification: Occidental shall notify the CEC of the designated geotechnical engineer's name and telephone number at least 30 days prior to the start of construction activity.

- 7-2. Occidental shall assign to the project a certified engineering geologist who will be present as needed during all phases of site excavation and grading to evaluate site geologic conditions and geologic safety.

Verification: Occidental shall notify the CEC of the designated individual's name and telephone number at least 30 days prior to the start of construction activity.

- 7-3. Occidental shall submit the following documents to the Lake County CBO:

- o Two sets (each containing Element I and Element II) of the Report by Harding-Lawson Associates titled: "Geotechnical Investigation, Power Plant Site 1, Occidental Geothermal Inc., Lake County, California," 1981.
- o A Soils Grading Report.
- o A Geologic Grading Report prepared and signed by a certified engineering geologist.
- o Final Reports.

Verification: The final reports, including the Soils Grading Report and the Geologic Grading Report, will be submitted after completion of the rough grading. These reports will be deemed approved by the CBO unless Occidental is notified otherwise within 60 days of receipt of such reports by the CBO. A supplementary report will be submitted after completion of excavation of all foundations and finish grading.

- 7-4. If geologic conditions do not differ substantially from those conditions represented by the Harding-Lawson report, Occidental shall implement the report's recommended mitigation measures for adverse geologic conditions.

Verification: Occidental's certified engineering geologist shall verify compliance with the Harding-Lawson report's recommended mitigation measures.

- 7-5. Occidental shall immediately report to the Lake County CBO and the CEC any geologic conditions which deviate from those predicted in the Harding-Lawson report enough to warrant substantial changes in design of site earthwork, power plant facilities, or site viability.

Verification: Discovery of adverse site geologic conditions which will warrant only minor changes in facility design will be reflected in the "As-Built" grading plan and Geologic Grading Report. If, however, a geologic condition is discovered which is more adverse than that predicted in the Harding-Lawson report and which will require substantial change in design, Occidental's responsible civil engineer or geotechnical engineer will notify the Lake County CBO and the CEC of all such substantial design changes. Occidental shall cease earthwork and construction in the affected area, unless required for safety, pending approval by the Lake County CBO of the revised design. If the revised plans are not approved or disapproved by the CBO within five working days of receipt of the revised plans, the matter shall be considered under the provisions of the Dispute Resolution Procedures.

- 7-6. Occidental shall ensure that geologic records of site inspections, especially detailed logs of excavated surfaces, will be prepared during site preparation and submitted to the CEC upon request.

Verification: Occidental shall notify the CEC of the availability of geologic records of site inspections.

Section 8. SOILS

A. Applicable Laws, Ordinances, Standards, and Practices

- o 30 Code of Federal Regulations Section 270 et seq.
- o Lake County Use Permit UP80-25 Occidental Geothermal Site "B."
- o Uniform Building Code, 1979 edition, Chapter 70.

In addition, the following standards shall be used as guides in the final design of the power plant and related facilities:

- o Central Valley Regional Water Quality Control Plan for Basin 5A.
- o California Department of Conservation, "Model Erosion Control Ordinance" in Erosion and Sediment Control Handbook, EPA 440/3-78-003, pp. 3 - 12, May 1978.

B. Requirements

- 8-1. The Water Quality Control Plan (5A) adopted by the Central Valley Regional Water Quality Control Board contains water quality objectives for turbidity and sedimentation. In adopting waste discharge requirements for the power plant facility, the CVRWQCB will likely incorporate appropriate requirements pursuant to the Water Quality Control Plan (5A). In response to such requirements, Occidental shall ensure that the construction and operation of this geothermal power plant does not promote turbidity or sediment loadings in quantities so as to create a nuisance or adversely affect beneficial uses of surface streams on or adjacent to the leasehold.

Verification: Prior to the start of site construction, Occidental shall file a "Report of Waste Discharge" with the CVRWQCB. A copy of this report should be filed with the CEC and should include a statement identifying the methods to be utilized to comply with the above objectives and an updated construction schedule.

- 8-2. Occidental shall correct soil deficiencies in nitrogen, phosphorous, calcium, sulfur, molybdenum, and potassium by proper application of appropriate fertilizer(s) and/or soil amendment(s) on all revegetated cut and fill slopes.

Verification: Occidental shall provide the CEC a report identifying the cut and fill slopes and the type(s) of fertilizer(s) and/or soil amendment(s) used within 60 days of application.

- 8-3. In lieu of a sediment pond, Occidental shall implement the following erosion control measures on the fill slope of the power plant site: revegetate by using top soil, punched straw, seeding and jute netting; and place rip-rap at the toe of the fill slope and a sediment screen/retaining wall of staked straw bales in a continuous line beyond the rip-rap.

Verification: Occidental shall provide a letter to the CEC within 60 days of implementation of the erosion control measures.

- 8-4. Occidental shall inspect all cut and fill slopes for a period of three years to determine the effectiveness of mitigation measures. If soil loss is apparent, a slope erosion transect shall be made on the affected slopes from which to estimate the amount of soil loss.

Verification: Oxy shall provide an annual memorandum describing the condition of cut and fill slopes. If erosion transects have been conducted, Occidental shall identify the slopes on which the transects were conducted and provide an estimated soil loss in tons per acre.

- 8-5. Occidental shall establish fixed reference stations for photographing cut and fill slopes. The stations shall provide a full-face view of the power plant site fill slope.

Occidental shall take photographs of cut and fill slopes after erosion control measures are installed and after major rainstorms during the first water (October 1 through September 30) or until a grass cover is established.

Verification: Occidental shall supply the CEC with such photographs.

- 8-6. As an adequate method of monitoring the effectiveness of erosion control measures, Occidental shall take false color infrared aerial photographs of the leasehold in the spring and fall for the years 1983 through 1987.

Verification: Occidental shall provide the CEC with these photographs at a scale of 1:3,000 within 60 days of the flight.

Section 9. CIVIL ENGINEERING/AESTHETIC

A. Applicable Laws, Ordinances, Standards, and Practices

- o Uniform Building Code (1979);
- o Lake County Ordinance 970;
- o American Concrete Institute (ACI) Standard 318-77, "Building Code Requirements for Reinforced Concrete."

B. Requirements

9-1. Occidental will submit two sets of the final design grading plans, geotechnical investigation reports, specifications, and calculations to the Lake County Chief Building Official (CBO) for review at least 90 days prior to construction. Occidental's responsible civil engineer and Occidental's certified engineering geologist shall verify that the proposed grading plans, including accompanying reports, comply with the requirements set forth in the applicable laws, ordinances, and standards. Occidental will make in-lieu payments to Lake County equivalent to the fees listed in Chapter 70, Section 7007 of the UBC for review of the grading plans and calculations. The CBO shall check the plans, specifications, and calculations in accordance with the county's plan check procedures. If the plans do not comply with the UBC or pertinent laws, ordinances, or standards, the CBO shall notify Occidental's civil engineer within 30 days of submittal, identifying all discrepancies for correction. Within 60 days of the original submittal, Occidental shall submit revised plans rectifying all discrepancies. If the corrections are not acceptable and the requirements cannot be met, grading will not be allowed.

Verification: If the work described in the grading plans conforms to the requirements, the CBO shall return to Occidental one complete set of the submittals stamped and signed with his approval and shall issue an in-lieu grading permit. Occidental shall notify the CEC following receipt of the grading permit.

9-2. Occidental shall prepare and submit one copy each of the following to the Lake County CBO:

- o A summary of Soils Compaction Tests.
- o A Soils Grading Report signed by a civil engineer.
- o A Geologic Grading Report signed by a certified engineering geologist.
- o "As-Built" grading drawings. (Occidental's responsible civil engineer shall certify on the "As-Built" drawings that all site earthwork was done in accordance with the approved final grading plan, including subsequent change orders, and satisfies the design intent.)

- o "As-Built" drawings for the construction of civil and architectural work.
- o A final report and site approval signed by a civil engineer.
- o A monthly summary of construction progress.

Verification: All submittals listed above, except construction progress, shall be submitted by Occidental within 180 days after completion of site preparation. These will be deemed approved by the CBO unless Occidental is notified otherwise within 60 days of receipt of such plans and documents by the CBO. Construction progress reports shall be submitted monthly until the unit has started commercial operation.

- 9-3. Occidental shall comply with all the recommendations given in the 1981 report by Harding-Lawson Associates, "Elements I and II Geotechnical Investigation Power Plant Site 1," plus the supplement provided conditions are substantially similar to those reported in the Harding-Lawson report.

Verification: Occidental shall verify compliance by means of the grading reports submitted to the Lake County CBO.

- 9-4. Occidental shall ensure that appropriate erosion control mitigation measures are implemented when stabilizing the cut and fill slopes in plant site and related access roads. The CDFandG shall be allowed access to the construction site in order to advise Occidental on the mitigation measures.

Verification: Occidental's biologist and civil engineer shall provide the CEC with a statement in a periodic compliance report regarding the implemented mitigation measures.

- 9-5. The retaining walls at the northeast parts of the site shall be designed by a professional engineer, using accepted engineering practice, to withstand sliding or overturning from seismic-induced or other forces. The retaining walls shall be designed with a minimum static factor of safety of 2.0 and a minimum pseudo-static factor of safety of 1.3 when using an effective horizontal acceleration of 0.2g.

Verification: Occidental shall submit final design drawings and calculations signed by a registered civil engineer to the Lake County CBO for review in accordance with the county's plan check at least 30 days before construction of the walls. If the CBO finds that the final plans and calculations do not comply with the applicable laws, ordinances, standards, and conditions of certification, the CBO shall notify the Occidental civil engineer of the discrepancies within 10 days. Occidental will rectify the discrepancies and shall submit any revised plans or calculations

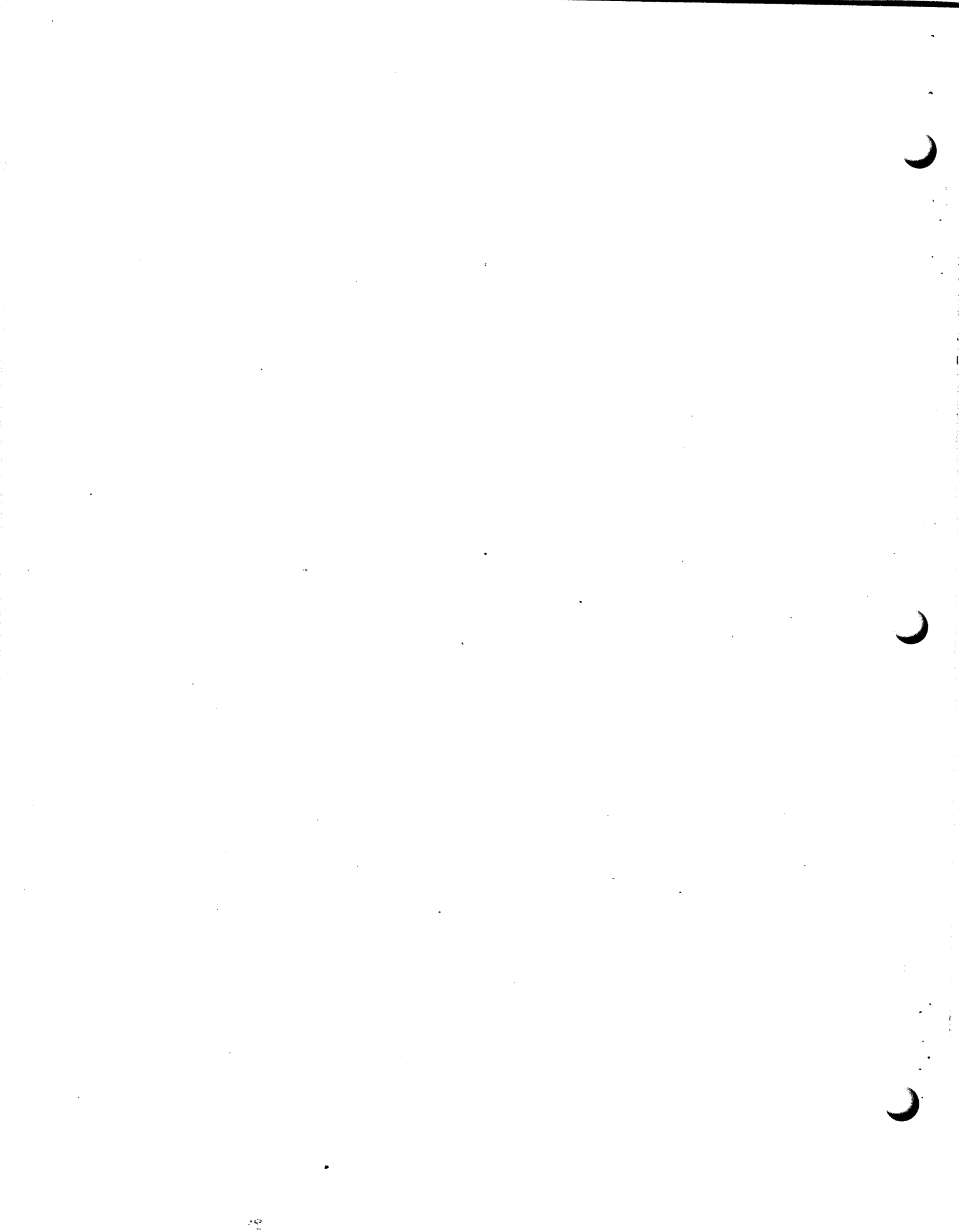
within 20 days of original submittal. If no further revisions are warranted, the CBO shall issue an in-lieu building permit for the retaining walls within 30 days of initial submittal. "As-Built" documents will be submitted to the CBO within 180 days following construction. Occidental shall notify the CEC following receipt of the building permit.

- 9-6. On-site inspections shall be performed in accordance with Chapter 3, Section 305 of the UBC.

Verification: Inspection shall be done by the Lake County CBO or his agent. Special and continuous inspections may be delegated by the CBO to Occidental as provided in Section 305, Chapter 3 of the UBC. If the inspector finds that the work is not being done in accordance with the approved plans, the discrepancies shall be reported immediately in writing to the CBO, the CEC, and Occidental's responsible civil engineer.

- 9-7. Occidental shall use colors and nonreflective materials for transmission line facilities and power plant structures that will minimize the contrast with the natural background.

Verification: Occidental shall identify, as part of the proposed design and construction plans, measures minimizing visual contrasts.



Section 10. STRUCTURAL ENGINEERING

A. Applicable Laws, Ordinances, Standards, and Practices

Law:

- o Title 8, California Administrative Code, adopting American Society of Mechanical Engineers' Boiler and Pressure Vessel Code (ASME BPV Code).
- o Title 24, California Administrative Code, adopting current edition of Uniform Building Code (UBC) as minimum legal building standards.
- o Chapter 7, Division 3, Business and Professions Code, requiring state registration to practice as a civil engineer or structural engineer in California.

Ordinances:

- o Lake County Ordinance 970.

Standards:

- o Uniform Building Code, 1979 Edition (UBC 79).
- o American Society of Mechanical Engineers' Boiler and Pressure Vessel Code.
- o American National Standards Institute (ANSI), "B 31.1 Power Piping Code."
- o ANSI, Building Code Requirements for Minimum Design Loads in Buildings and Other Structures" (ANSI A 58.1-1972).
- o American Concrete Institute (ACI), "Building Code Requirements for Reinforced Concrete" (ACI 318-77).
- o ACI, "Building Code Requirements for Structural Plain Concrete" (ACI 322-72).
- o ACI, "Commentary on Building Code Requirements for Reinforced Concrete" (ACI 318C-77).
- o American Institute of Steel Construction (AISC), "Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings" (AISC SDFESS 80).
- o AISC, "Commentary on the Specifications of the Design, Fabrication, and Erection of Structural Steel for Buildings" (AISC CSDFESS 78).
- o AISC, "Specification for Structural Joints Using ASTM, A325, or A490 Bolts," April 1978 (AISC SST 78).

- o AISC, "Code of Standard Practice for Steel Buildings and Bridges," September 1976 (AISC CSPSBB 76).
- o American Welding Society, "Structural Welding Code AWS D1.1-81" (AWS D1.1-81).
- o AWS, "Reinforcing Steel Welding Code" (AWS D12.1-75).
- o "National Design Specification for Stress-Grade Lumber and Fastenings, 1977" (NDS 77).
- o American Institute of Timber Construction, 1972, "Timber Construction Standards," AITC-100.
- o American Iron and Steel Institute (AISI), "Specification for the Design of Cold-Formed Steel Structural Members," 1968 (AISI SDCFSS).
- o Steel Joist Institute, "Standard Specifications and Load Tables" (SJI SSLT).
- o American Association of State Highway and Transportation Officials, "Standard Specifications for Highway Bridges," 1977 Edition (AASHTO Bridge 77).
- o Cooling Tower Institute, "CTI Code Tower, Standard Specifications for the Design of Cooling Towers with Douglas Fir Lumber," 1978 (CTI 114-78).

In addition, the following standards shall be used as guides in the final design of the power plant and related facilities.

1. Applied Technology Council, "Tentative Provisions for the Development of Seismic Regulations for Buildings" (NBS-SP-510; ATC-3-06).
2. Structural Engineers Association of California, "Recommended Lateral Force Requirements," 1975, recommendations and commentary.

B. Requirements

10-1. Occidental shall design and construct Occidental Geothermal Plant No. 1 and its related facilities to be in conformance with applicable laws, ordinances, standards, and practices and with the information, criteria, and methods set forth in the following documents:

- o Occidental Geothermal Plant No. 1 AFC, Sections 1.3.3, 1.3.4, and 1.3.5, and Appendix A.
- o Occidental Geothermal, Inc., (OGI) responses (dated April 30, 1981) to staff interrogatories and review comments.
- o Occidental Geothermal Plant No. 1--Workshop Summary--Structural Engineering, May 8, 1981.

In the case of discrepancies between the design criteria contained in the applicable laws, ordinances, standards, practices, or conditions of certification, Occidental will use the most conservative criteria in the final design of the facility.

For seismic loads, Occidental will use an equivalent lateral force (ELF) method of structural analysis with a base shear coefficient of $0.27 w$ for nonessential facilities and $0.4 w$ for essential (Category 1) facilities. Occidental will design the turbine-generator building and pedestal using a dynamic method of structural analysis.

For the dynamic analyses, Occidental will use the response spectra, with code allowable stresses, given in ATC-3-06 (Figure C1-9), normalized to $0.15 g$ (5 percent damped) for the functional basis earthquake and to $0.28 g$ (10 percent damped) for the extreme basis earthquake.

For the functional basis earthquake, Occidental will specify and use design stresses for the proposed wooden cooling tower structure in accordance with CTI 114-78. In addition, Occidental will emphasize UBC Section 2312(e) regarding appropriate assumptions of lateral force distribution. Occidental will design and construct bolted and/or welded anchorages on H_2O_2 , acid, caustic, and chelating agent tanks to withstand a force of $0.87 w$ using UBC formula 12.8. All other bolted or welded anchorages for Category 1 equipment will be designed and constructed for an equivalent lateral force of $0.4 w$ when located or anchored at ground level, increasing linearly to $0.8 w$ when located or anchored at a height of 30 feet.

Occidental shall design and construct tanks containing H_2O_2 , acid, caustic, and chelating agent, or the containment surrounding these tanks, to withstand a force of $0.87 w$.

Occidental will design piping, valves, and anchorages to withstand equivalent static loads (ESL) in accordance with ANSI B31.1. The ESL shall be as specified above for Category 1 equipment.

Verification: At least 90 days prior to the intended start of construction, Occidental will submit two sets each of final (i.e., bid) design plans specifications, and calculations for each structure or structure foundation to the Lake County CBO and the CEC. The final plans, calculations, specifications shall clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design. Occidental shall certify to the CBO and CEC that the final plans and specifications conform to the listed requirements. Occidental shall make in-lieu payments to Lake County equivalent to the fees set forth in Chapter 3, Section 303, of the UBC 1976 for review and to obtain an in-lieu building permit for each submittal. The CBO will review the plans.

If the CBO discovers nonconformance with the stated requirements, he will notify Occidental's responsible structural engineer within 60

days of the submittal date and will return that nonconforming portion of the plans to Occidental for correction. Occidental's responsible structural engineer will resubmit the corrected plans within 30 days of the return to Occidental of the nonconforming submittal. The CBO will return one complete set of submittals stamped and signed with his approval to Occidental within 60 days of submittal, provided the plans comply with the stated requirements.

"Certification" or "certify" as used herein means:

- a. All structural plans, calculations, and specifications shall be signed and stamped by the responsible structural engineer who shall have the authority to use the title "Structural Engineer" in California. All piping plans, calculations, and specifications shall be signed and stamped by the responsible mechanical engineer who shall have the authority to use the title "Mechanical Engineer" in California.
 - b. The structural plans, calculations, and specifications shall be accompanied by a letter signed and stamped by the responsible structural engineer certifying that the design conforms to the requirements listed herein. The piping plans, calculations, and specifications shall be accompanied by a letter signed and stamped by the responsible mechanical engineer certifying that the design conforms to the requirements listed herein.
- 10-2. Occidental shall prepare and submit one set of the following documents to the Lake County CBO within 120 days after completion of construction. These documents will be reviewed by the CBO, who shall notify Occidental of his approval of the documents within 60 days of receipt.
- o "As-built" drawings for the construction of structural and architectural work (changes approved by the CBO will be identified on the "as-built" drawings).
 - o Summary of concrete strength tests.
 - o Copies of concrete pour sign-off sheets.
 - o Bolt torque inspection reports.
 - o Field weld inspection sheets.

Verification: Occidental shall notify the CEC following the submittal of these documents to the Lake County CBO.

- 10-3. Occidental shall keep the Lake County CBO and the CEC informed regarding the status of construction.

Verification: Occidental shall submit a monthly construction progress report to the Lake County CBO and the CEC.

- 10-4. Occidental will file with the Lake County CBO and the CEC substantial design changes to the final plans as required by UBC Section 302. "Substantial changes" include all changes requiring an alteration in design concept and preparation of new design plans consistent with the AFC conditions of certification. Minor changes shall be reflected in the "as-built" drawings submitted after construction.

Verification: Occidental shall submit 2 sets of the revised drawings, specifications, and calculations to the Lake County CBO for review and will notify the CBO at least 15 days in advance of the intended filing. The CBO will review these plans on an expedited basis. The CBO will return 1 set of submittals stamped and signed with his approval to Occidental, provided the plans comply with the stated requirements, within 30 days.

- 10-5. Inspections shall be performed in accordance with Chapters 3 and 70 of the Uniform Building Code (1976 edition). The Lake County CBO may delegate responsibility for special and continuous inspections to Occidental as provided in Section 305, Chapter 3, of the UBC 1976. The CBO or its agent and the CEC may, upon reasonable notice, inspect the construction at any time.

Verification: Occidental shall notify the CEC if the Lake County CBO delegates responsibility for inspections to Occidental.

- 10-6. In the event that the Uniform Building Code (1979 edition) is not adopted prior to final plans approval by either the state under Title 24 CAC or by Lake County ordinance, Occidental shall demonstrate that the facility design conforms with the requirements of UBC 1976.

Verification: In the event that final plans have been submitted for review prior to the adoption of UBC 1979, Occidental shall file a statement by the responsible structural engineer verifying conformity of the submitted plans with UBC 1976.



Section 11. SOLID WASTE MANAGEMENT

A. Applicable Laws, Ordinances, Standards, and Practices

- o California Water Code, Section 13260.
- o Title 22, California Administrative Code, Division 4, Chapter 30.
- o Title 23, California Administrative Code, Chapter 3.
- o California Health and Safety Code, Division 20, Chapter 6.5.
- o Federal Resources Conservation and Recovery Act.

B. Requirements

- 11-1. Occidental shall ensure that any hazardous waste hauler employed has a certificate of registration from the California Department of Health Services (CDHS), Hazardous Materials Management Section.

Verification: Occidental shall keep a letter on file verifying that hazardous waste haulers have CDHS certificates of registration.

- 11-2. The only Stretford process waste is sulfur cake with some entrained process chemicals. Occidental shall ensure that the sulfur cake is properly stored in an appropriate container and removed periodically to be sold or disposed at a site approved for such wastes.

Any sludge which accumulates in the cooling tower will be removed as needed and hauled by a registered hazardous waste hauler to an approved disposal site.

Verification: Occidental shall submit final design plans and "As Built" drawings to the Lake County CBO incorporating these design features. In addition, Occidental shall each month submit completed hazardous waste manifests to CDHS in compliance with Section 66475 of Title 22, CAC.

- 11-3. Occidental shall require that hazardous wastes are taken to a facility permitted by CDHS to accept such wastes. (Occidental has indicated its intention to dispose of wastes generated at either the Middletown or Kelseyville approved sites.)

Verification: Occidental shall notify the CEC, CDHS, and Solid Waste Management Board of the selected disposal site. Any notice of change in disposal sites will be submitted as changes occur.

- 11-4. If a secondary treatment system is used to abate H₂S emissions, the plant may produce additional hazardous wastes. To ensure that these wastes are properly disposed, Occidental shall submit its secondary abatement waste disposal plans, if secondary abatement is required, to the CEC for review.

Verification: The plans shall be submitted as soon as Occidental determines secondary abatement is required, but not later than 120 days prior to operation of the secondary abatement system.

- 11-5. If hazardous wastes, including Stretford sulfur effluent, are stored on site for more than 60 days, Occidental shall obtain a determination from the CDHS that the requirements of a Hazardous Waste Facility Permit have been satisfied.

Verification: Occidental shall notify the CEC if it files an in-lieu application with CDHS for the operation of a Hazardous Waste Facility.

Section 12. SAFETY

A. Applicable Laws, Ordinances, Standards, and Procedures

- o Code of Federal Regulations, Title 49, Sections 173.302, 178.36, 178.37, and 173.249.
- o Title 8, California Administrative Code, Article 138.
- o Title 8, Section 5162, California Administrative Code.
- o Title 8, Section 5179, California Administrative Code.
- o Title 8, Section 5204, California Administrative Code.
- o Title 8, Chapter 4.1, California Administrative Code.
- o Title 8, California Administrative Code, Article 145.
- o Title 8, Group 16, California Administrative Code.
- o American Petroleum Institute (API) Standard 650.
- o ASME Pressure Vessel Code.
- o ATC 3.06, Section 8.3.
- o Title 8, Chapter 4.7, Groups 20 and 27, California Administrative Code.
- o Uniform Building Code (1976 edition), Chapters 5, 20, 32, 33.
- o National Fire Protection Association (NFPA) Standards: 10, 12, 12A, 13, 14, 16, 19B, 194, 196, 20, 24, 30, 70, 214, 26, 27, 198, 231A.
- o Public Resources Code, Section 4291.
- o Title 8, §§ 1509 and 3203 et seq., California Administrative Code.
- o Title 8, Section 5155, California Administrative Code.

B. Requirements

- 12-1. Occidental will arrange for a review by a registered fire protection engineer or Occidental's fire hazard adviser to assure that Oxy Geothermal #1 is designed and has been constructed to reasonable conformance with applicable fire safety codes and standards.

Verification: Occidental shall submit certification from a registered fire protection engineer or Occidental's fire hazard adviser in a periodic compliance report prior to commercial operation.

- 12-2. Occidental will consult with the California Department of Forestry and local entities for mutual assistance.

Verification: Occidental shall submit copies of correspondence for mutual assistance in a compliance report prior to construction.

- 12-3. Occidental shall comply with the handling procedures for hydrogen peroxide as specified in Title 8, CAC, Section 5204.

Verification: Occidental shall submit a letter, signed by the plant superintendent and verifying compliance, to CAL/OSHA after commercial operation.

- 12-4. Occidental shall comply with the storage procedures for hydrogen peroxide as specified in Title 8, CAC, Section 5179.

Verification: Occidental shall submit a letter, signed by a registered mechanical engineer and verifying compliance, to CAL/DOSH prior to commercial operation.

- 12-5. Occidental shall comply with the handling and transportation procedures for caustic materials as specified in 49 CFR, Section 173.249, and Title 8, CAC, Section 5162.

Verification: Occidental shall submit a letter, signed by the plant superintendent and verifying compliance, to CAL/DOSH after commercial operation.

- 12-6. Occidental shall comply with the handling and storage procedures for hydrogen gas as specified in Title 8, CAC, Article 138.

Verification: Occidental shall submit a letter, signed by the plant superintendent and verifying compliance, to CAL/DOSH prior to commercial operation.

- 12-7. Occidental shall ensure that the Stretford system pressure vessels are designed and fabricated in accordance with Title 8, CAC, Chapter 4.1, and that the anchors are designed using methods specified in ATC-3-06, Section 8.3.

Verification: Occidental shall submit a letter, signed by a registered mechanical engineer, verifying compliance to the CEC prior to commercial operation. In addition, Cal/DOSH shall verify compliance through an on-site inspection.

- 12-8. Occidental shall ensure that the Stretford system tanks are designed and fabricated in accordance with API Standard 650; Title 8, CAC, Chapter 4, and that the anchors are designed using methods specified in ATC-3-06, Section 8.3.

Verification: Occidental shall submit a letter, signed by a registered mechanical engineer, verifying compliance to the CEC prior to commercial operation. In addition, Cal/DOSH shall verify compliance through an on-site inspection.

- 12-9. Occidental shall ensure that the hydrogen peroxide tanks are designed and fabricated in accordance with MCA Chemical Safety Data

Sheet SD-53 and that the anchors are designed using methods specified in ATC-3-06, Section 8.3.

Verification: Occidental shall submit a letter, signed by a registered mechanical engineer, verifying compliance to the CEC prior to commercial operation. In addition, Cal/DOSH shall verify compliance through an on-site inspection.

- 12-10. Occidental shall ensure that certified code papers for the facility's pressure vessels are available for review.

Verification: Occidental shall notify Cal/DOSH and the CEC of the availability of the documents prior to commercial operation.

- 12-11. Occidental shall ensure that tanks for HAA and FeSO_4 are designed and fabricated in accordance to Title 8, Group 16, CAC, and that the anchors are designed using methods specified in ATC-3-06, Section 8.3.

Verification: Occidental shall submit a letter signed by a registered mechanical engineer verifying compliance to the CEC prior to commercial operation.

- 12-12. Occidental shall implement an accident prevention program in accordance with the provisions of Sections 3203 et seq. of Title 8, CAC. (These sections include chemical handling and storage and provisions for hazardous materials and airborne contaminant exposure based on Section 5155, Title 8, CAC.) Occidental shall request CAL/OSHA Consultation Service to review this accident prevention program.

Verification: Occidental shall obtain a letter from the CAL/OSHA Consultation Service verifying compliance with the requirements of Section 3203, Title 8, CAC. Notification of this verification shall be filed with the CEC prior to commencement of operation of Oxy Geothermal #1.

- 12-13. On-site worker safety inspections shall be conducted by the California Division of Occupational Safety and Health (CAL/DOSH) during construction and operation of the facility or when an employee complaint has been received. CAL/DOSH shall notify the CEC in writing in the event of a violation that could involve DOSH action affecting the construction or operation schedule.

Verification: Occidental shall note any CAL/DOSH inspections in its periodic compliance reports.



Section 13. TRANSMISSION LINE SAFETY AND NUISANCE

A. Applicable Laws, Ordinances, Standards, and Practices

- o 8 California Administrative Code, Section 5095 - 5099.
- o Sonoma County General Plan Noise Element (adopted January 1978).
- o Lake County Noise Element.
- o California Public Utilities Commission General Order 95.
- o 8 California Administrative Code, Article 85, Section 2940 et seq.; Article 87, Section 2950 et seq.; and General Construction Safety Orders, Title 8, Chapter 4, Subchapters 4 and 7.
- o 49 USCA 1348, 14 CFR, Part 77.
- o Federal Communications Commission Rules and Regulations, 47 CFR, Part 15.25.
- o Public Resources Code Sections 4292 - 4296, State and Private Land Fire Protection (Power Line Fire Prevention Field Guide, 1977).
- o Grounding criteria specified in the Transmission Line Safety and Nuisance interrogatory response #2, dated June 9, 1981.
- o Staff RI/TVI criteria per Joint Finding 7.

B. Requirements

- 13-1. Occidental shall file a "Notice of Construction or Alteration" form with the Federal Aviation Administration if it is anticipated that construction would result in a transmission line tower or any appurtenances being more than 200 feet in height above the ground level per the provisions of 14 CFR, Part 77.

Verification: Occidental shall notify the CEC of any such filing and shall forward a copy to the CEC upon request of the CEC.

- 13-2. Occidental shall construct, operate, and maintain the transmission lines in accordance with Title 14, California Administrative Code, Sections 1254 - 1256, and Public Resources Code, Sections 4292 - 4296.

Verification: Within 30 days after completion of construction, Occidental shall submit a statement from a responsible civil engineer to the California Department of Forestry and the CEC indicating that the transmission line has been constructed in accordance with applicable requirements. Occidental shall also inspect the transmission line annually to ensure that the line maintains required clearances. In the event that noncompliance is determined by the CDF, the CDF shall require Occidental to take measures necessary to correct the noncompliance. If Occidental's corrective measures are

unsatisfactory in the opinion of the CDF, the CDF shall inform the CEC and shall recommend a course of action.

- 13-3. Occidental shall ensure that, regardless of location or ownership, all ungrounded metallic fences longer than 150 feet within the right-of-way shall be grounded following the procedures outlined in the Transmission Line Safety and Nuisance interrogatory response #2, dated June 9, 1981.

Verification: Within 30 days after completion of transmission line construction, Occidental shall file a statement verifying compliance.

- 13-4. In the event of complaints regarding induced currents from vehicles, portable objects, large metallic roofs, fences, gutters, or other objects, Occidental shall investigate and take all reasonable measures at its own expense to correct the problem for valid complaints, provided that (a) the object is located outside the right-of-way, or (b) the object is within the right-of-way and existed prior to right-of-way acquisition.

For objects constructed, installed, or otherwise placed within the right-of-way after right-of-way acquisition, Occidental shall notify the owner of the object that it should be grounded. In this case, grounding is the responsibility of the property owner. Occidental shall advise the property owner of this responsibility in writing prior to signing the right-of-way agreement.

Verification: Occidental shall maintain a record of activities related to this paragraph. These records shall be made available to CEC staff upon request.

- 13-5. Occidental shall ensure that the design and construction of the transmission line satisfies or exceeds both the requirements of PUC General Order 95 and the terms and conditions of CEC certification. Occidental shall receive CEC approval prior to filing a request with the PUC for a waiver of any General Order 95 requirements. Occidental shall also receive CEC approval for any of the following significant changes in transmission line design.

- o Any change in conductor size from 795 kcmil,
- o Any tower configuration other than as proposed in the AFC,
- o Change to the number of circuits,
- o Change to the voltage level of line,
- o Changes in normal or emergency conductor capacity greater than 15 percent,
- o Change in termination point,

- o Change in route length, and
- o Changes to the route right-of-way width.

Verification: Within 30 days following completion of the transmission line, Occidental shall submit to the CEC a statement signed by a registered electrical engineer which verifies compliance with the requirements of PUC General Order 95 and with the terms and conditions of CEC certification. The statement shall note any waivers granted by the PUC for General Order 95 requirements.

- 13-6. On-site worker safety inspections may be conducted by the California Division of Occupational Safety and Health (CAL/DOSH) during construction and operation of the transmission line or when an employee complaint has been received. Occidental shall notify the CEC in writing in the event of a violation that could involve DOSH actions affecting the transmission line construction or operation schedule.

Verification: Occidental shall maintain records of CAL/DOSH inspections and shall make them available to CEC staff upon request.

- 13-7. Occidental shall make every reasonable effort to locate and correct, on a case-by-case basis, all causes of radio interference and television interference attributed to the transmission line facilities, including, if necessary, the modification of receivers and the furnishing and installation of antennas. In addition, Occidental shall take reasonable care to prevent the conductors from being scratched or abraded.

Verification: Occidental shall maintain records of complaints and corrective action and shall make these records available to CEC staff upon request.

- 13-8. Occidental shall report all public or employee injury and fatal accidents to the CEC.

Verification: Within 30 days of an employee injury or fatality, Occidental shall file a report with the CEC which includes (1) date accident occurred; (2) job title of injured employee or fatality; (3) description of injury; (4) description and cause of accident; (5) discussion of compliance with General Order 95 requirements and applicable DOSH regulations in vicinity of accident; and (6) a statement of corrective/preventive measures taken or to be taken.

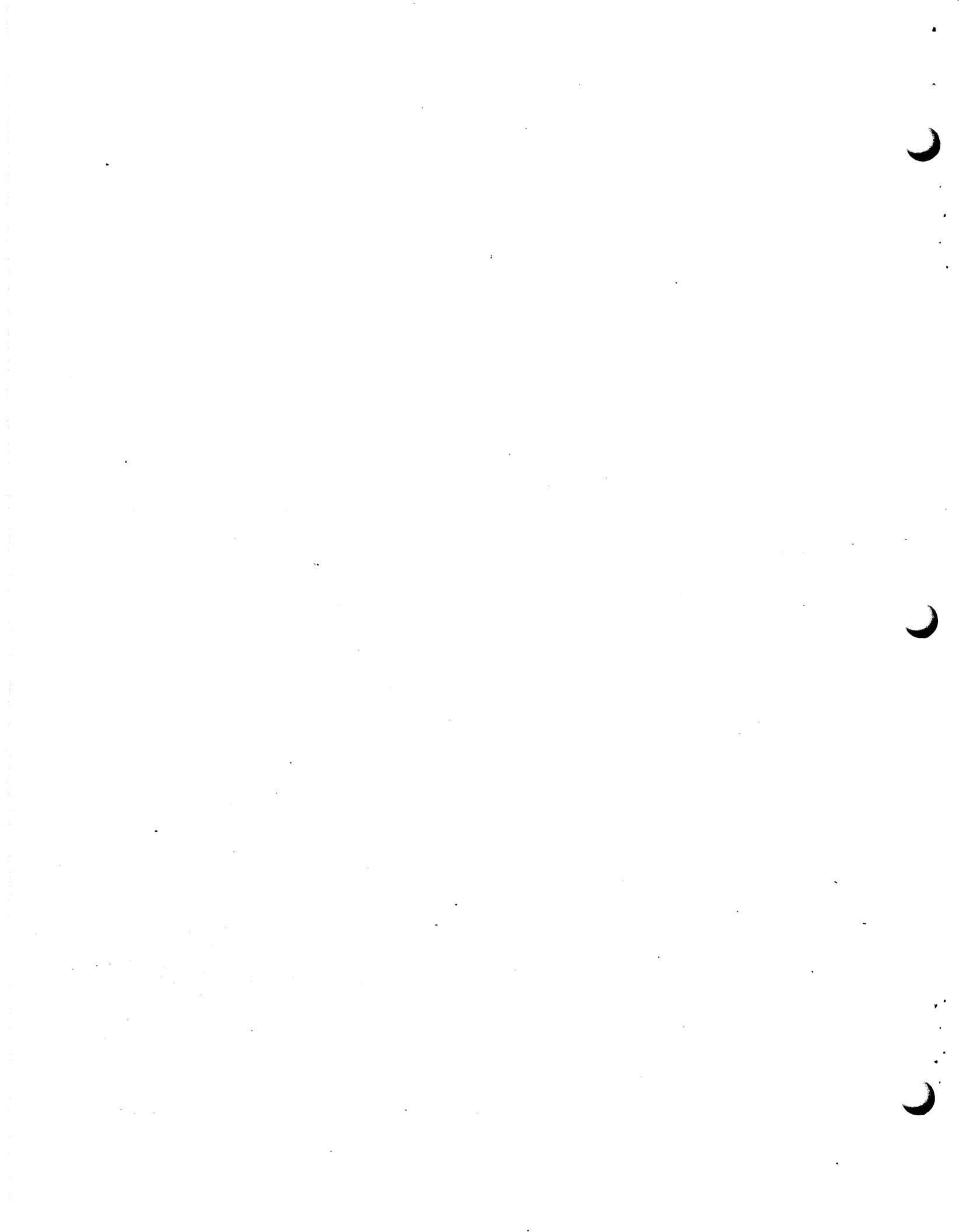


Section 14. Transmission Line Engineering

(Compliance requirements are included in Sections 9, 10, and 13.)



Section 15. Transmission Line Biological Resources
(Compliance requirements are included in Section 5.)



Section 16. Noise

A. Applicable Laws, Ordinances, Standards, and Practices

- o Occupational Health and Safety Act of 1970 (29 CFR 1910 et seq.).
- o Title 8, California Administrative Code, Article 105.
- o Noise Element of the Lake County General Plan.
- o Draft Lake County Noise Ordinance.

B. Requirements

- 16-1. Occidental shall comply with Draft Lake County Noise Ordinance Standards, which are 55 dBA for daytime hours (7 a.m. to 10 p.m.) and 45 dBA for nighttime hours (10 p.m. to 7 a.m.) for residences. In the event the Lake County Air Pollution Control District (LCAPCD) or Occidental receives public complaints of the noise due to construction, the LCAPCD and Occidental agree to promptly conduct an investigation to determine the extent of the problem. Occidental shall take reasonable measures to resolve the complaints.

Verification: Occidental shall develop and submit to the Lake County Air Pollution Control District (LCAPCD) a procedure for handling public complaints. The LCAPCD will notify Occidental and the CEC when the LCAPCD deems the Occidental plan acceptable.

- 16-2. Within 10 days of a request by the LCAPCD, Occidental shall conduct noise surveys at the sensitive receptors registering complaints and at the facility property line nearest the complaining receptors. Surveys shall be conducted for the period of the construction working day and, if possible, under circumstances similar to those when the complaints were perceived. The survey should be reported in terms of the L_x and L_{eq} levels ($x=10, 50, \text{ and } 90$). Occidental shall identify and implement feasible mitigation measures necessary to assure compliance with the county standards.

Verification: Occidental shall promptly forward to the LCAPCD the survey results, the mitigation measures applied to resolve the problem, and the results of these efforts. LCAPCD shall advise the CEC of any continuing noncompliance conditions.

- 16-3. Within 90 days after the plant reaches its rated power generation capacity and construction is complete, Occidental shall conduct a noise survey at 500 feet from the generating station or at a point acceptable to Occidental, CEC, and the LCAPCD. The survey will cover a 24-hour period with results reported in terms of L_x ($x = 10, 50, \text{ and } 90$), L_{eq} , and L_{dn} levels.

Occidental shall prepare a report of the survey that will be used to determine the plant's conformance with county standards. In the

event that county standards are being exceeded, the report shall also contain a mitigation plan and a schedule to correct the noncompliance.

No additional noise surveys of off-site operational noise are required unless the public registers complaints or the noise from the project is suspected of increasing due to a change in the operation of the facility.

Verification: Within 30 days of the noise survey Occidental shall submit its report to the LCAPCD.

- 16-4. Within 180 days after the start of commercial operation, Occidental shall prepare a noise survey report for the noise-hazardous areas in the facility. The survey shall be conducted by a qualified person in accordance with the provisions of Title 8 CAC, Article 105. The survey results will be used to determine the magnitude of employee noise exposure. If employee complaints of excessive noise arise during the life of the project, CAL/DOSH, Department of Industrial Relations, shall make a compliance determination.

Verification: Occidental shall notify CAL/DOSH and the CEC of the availability of the report.