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CALIF ENERGY COMMISSION
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August 4, 2006

VIA E-MAIL CMEYER@ENERGY.STATE.CA.US
AND HAND DELIVERY

Christopher Meyer
Compliance Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Petition to Amend Final Decision to Re-Fire Plant
Bottle Rock Power Plant
79-AFC- 4

Dear Mr. Meyer,

Enclosed, please find one original and 14 copies of Bottle Rock Power LLC's **Petition to Amend the Final Decision to Re-Fire Plant** ("Petition to Amend") for the Bottle Rock Power Plant ("BRPP"). Bottle Rock Power, LLC ("BRP") is committed to restoring this important and valuable renewable energy resource to full operation in an environmentally sound and safe manner.

BRPP is solidly built and excellently located. With modern management and the modest but valuable improvements proposed in the Petition to Amend, BRPP should operate reliably and safely. Further, with the improvements proposed in the Petition to Amend, BRPP will have even less noticeable environmental effects. The beneficial changes proposed for BRPP range from lowered noise emissions during transient and reduced truck trips to and from the plant to improved quality and reliability of the hydrogen sulfide abatement system.

As California deals with rising oil and natural gas prices and looks to sources of clean, reliable, renewable energy for the future, geothermal power plants such as Bottle Rock Power Plant will be incredibly important. Renewed operation of BRPP is also an important part of the efforts funded, in part, by a California Energy Commission grant to explore side boring technology at the steam fields serving the plant, technology that could provide benefits for other geothermal projects.

Oregon
Washington
California
Utah
Idaho

BRP looks forward to working cooperatively with the California Energy Commission and bringing BRPP on line. Last week, BRP submitted a Petition to Amend the Final Decision to recognize the change in ownership type of BRPP from a California corporation to a Delaware LLC. BRP submitted this separately because of the different issues, but welcomes a parallel treatment of both petitions for efficiency purposes.

As always, if you have any questions regarding this Petition to Amend, please do not hesitate to contact me at (916) 447-0700.

Very truly yours,

John McKinsey

John A. McKinsey

CALIF ENERGY COMMISSION
79-AFC-4
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STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	**Docket No. 79-AFC-4**
	)	
	)	
BOTTLE ROCK GEOTHERMAL POWER PLANT	)	**PETITION TO AMEND FINAL DECISION TO RE-FIRE PLANT**
	)	
BOTTLE ROCK POWER CORPORATION	)	
	)	
	)	

I. PURPOSE

Bottle Rock Power, LLC ("BRP") submits this petition as the project owner of Bottle Rock Power Plant, 79-AFC-4 ("BRPP"), seeking changes to the final decision for the Application for Certification of BRPP ("Final Decision") to allow the operation of the facility. Pursuant to Title 20, California Code of Regulations, section 1769, BRP requests that the California Energy Commission ("CEC") approve this petition, thus modifying the Final Decision accordingly to allow operation of BRPP.

II. SUMMARY

Operation of BRPP would begin after more than 15 years of suspension. Few physical changes would occur to the facility, few conditions of certification ("COC" or "COCs") require modification, and numerous conditions require activation from suspended status. While BRPP itself will retain its permitted 55 MW capacity, initial output is expected to be approximately 20 MW based on steam availability from the steamfield. Physical changes at the plant are minor and/or beneficial. The proposed changes to the Final Decision will not present any regulatory compliance issues nor any significant adverse effects on the environment. For these reasons, this Petition to Amend should be approved by the CEC.

III. BACKGROUND

A. Project History

The California Department of Water Resources (DWR) initially planned to build three 55-megawatt (MW) geothermal power plant facilities in the Mayacama Mountains on the northern portion of the Known Geothermal Resources Area (KGRA) in Lake and Sonoma Counties of California (an area commonly referred to as "The Geysers") to supply electricity to the State Water Project. DWR submitted a Notice of Intention ("NOI") for a 55 MW geothermal power

plant located entirely within Lake County, California. The NOI was approved on July 26, 1979. DWR followed with the Application for Certification ("AFC") for BRPP in July of 1979 and the CEC issued the Final Decision for BRPP on November 5, 1980. Construction of BRPP was completed in March 1985, making BRPP the first facility built.

Since the end of 1990, BRPP has not generated electricity. In 1991, DWR shut down the facility and placed it in a mothballed condition. The CEC approved Order 93-0426-02 on April 26, 1993, which amended the Final Decision to grant the status of suspended operations and which modified and reduced environmental monitoring requirements for a three-year period. (*See Exhibit A*) Suspended Status was extended two more times for periods of five years each. (*Id., Orders 97-1203-1(a)* and *05-0511-03*).

On April 25, 2001, Bottle Rock Power Corporation purchased the facility from DWR and on May 30, 2001, the CEC approved transfer of ownership.[1] (See *Exhibit A*, *Order 01-0530-070.*) Since then, BRP has assumed responsibility for all aspects affecting the current and future status of BRPP.

B. Facility Description

BRPP is located within a leasehold of approximately 350 acres known as the Francisco Lease on High Valley Road near the town of Cobb in Lake County, California. The Coleman family partnership owns the leasehold in fee simple. BRP holds the transferable leasehold interest by means of assignment and owns title to all surface improvements and appurtenances on and the easements leading to the leasehold.

BRPP consists of one 55 MW geothermal turbine-generator manufactured by the Fuji Electric Corporation, an Ecol-Aire condenser system, a Research-Cottrell counter flow cooling tower with five cells, a Peabody-designed Stretford system to abate hydrogen sulfide, and a developed steam field. The steam field, which is not regulated or covered by the BRPP AFC and Final Decision, consists of 14 production wells including two re-injection wells.

BRPP was mothballed in a manner that allows restoration of the facility to operational status. Work is underway to return the steam field to operation and maintenance is ongoing to prepare the power plant facility for operation.

C. Needed Changes to Final Decision to Allow Operation

Since acquiring BRPP in 2001, BRP's objective has been to operate the facility. Currently, BRPP is in "Suspended Status" meaning that it operates under a reduced environmental monitoring program. The Final Decision and related subsequent CEC orders (collectively referred to herein as the "Final Decision") must be modified to allow operation of BRPP.

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[1] The Bottle Rock Power Corporation and Bottle Rock Power LLC, have merged. Ownership of Bottle Rock Power Plant does not change by the merger. BRP previously submitted a Petition to Amend the Final Decision to change ownership type on Friday, July 28, 2006. Throughout this Petition, the project owner is referred to as BRP.

Thus, many COCs issued in the Final Decision are suspended. Returning BRPP to operation will require that these COCs be restored to an active status and, in some instances, modified to reflect current regulatory approaches. In addition, the Suspended Status of BRPP will need to change. This Petition requests the CEC for approval of a change in status that will allow the facility to re-start and commence commercial operation. Fortunately, any physical changes to take place at BRPP will be minimal and primarily effect equipment improvement. Thus, any environmental effects related to these changes are minimal. The changes and any environmental effects are thoroughly examined in Section IV, below.

D. Activities Occurring at BRPP to Allow Operation

BRP is refurbishing the power plant and re-opening the wells that comprise the steamfield. Most of this work does not involve changes to the project description and falls under normal maintenance activities to restore the plant to operation. There are, however, a few needed changes to the plant, although these changes are not significant in terms of regulatory compliance or environmental impacts. All physical changes involve improvements that are beneficial in character, and do not effect the original footprint of the plant.

1. Steamfield Re-Opening

All steam production wells were temporarily suspended by installing a bridge plug at some depth in each well. This was accomplished under the auspices and approval of the California Department of Oil, Gas, and Geothermal Resources ("CDOGGR"). Each steam well has an air permit issued by the Lake County Air Quality Management District ("LCAQMD"). Removal of the plugs requires the re-opening and workover of the wells to allow the resumption of steam production. Both CDOGGR and LCAQMD are overseeing the re-opening of the steamfield. The steamfield is not regulated by the CEC and thus no approvals or authority is required from the CEC for this work.

The steam piping system, outside of the plant itself, remains under the jurisdiction of the Lake County Community Development Department (Amended Use Permit 85-27) and LCAQMD. Improvements are planned for the steam transmission line to make it more reliable, safer, and better able to deliver steam of a quality suitable for use in a steam turbine. The LCAQMD air permits, however, treat several components inside the plant as being part of the "steam transmission line." As a result, the air permit for the steam transmission line regulates some equipment under CEC jurisdiction and some equipment regulated by Lake County as part of the steamfield. All work or changes being considered for plant equipment are arguably under CEC jurisdiction is presented, explained, and analyzed in this Petition to Amend.

2. Steam Plant Refurbishment

The steam plant will be refurbished. Improvements are planned for several systems and equipment. A small improvement, the addition of distributive control system, will be to the steam plant to improve efficiency and reliability. No changes will be made to increase the capacity or output of the steam plant.

a. Turbine-Generator Set Restoration

The turbine-generator will be restored to the extent possible pursuant to original design criteria and nameplate rating. No significant modifications to the steam path through the turbine will be made. Every effort will be made to replace those components of the steam turbine that need replacement with components compatible with original manufacturer designs.

The Fuji Electric Corporation low pressure steam turbine rotor used at BRPP is designed and manufactured with dual phases, each with seven stages of blades. Each stage or row of blades is larger than the preceding stage. The first few rows of blades are relatively short in length and are the first to contact the incoming steam. As such, these blades can be adversely affected by exposure to water entrained in the steam or to the chemical composition of the steam. Inspection of the turbine rotor removed from the turbine case housing revealed that the first four stages of blades on each phase need to be replaced.

Given the manufacture date of the rotor (1982), the replacement blades for the first four stages of each phase will include those available and compatible with this rotor. Blades for the first four stages are identical air foil as the original. The larger blades of stages five through seven of the rotor will be refurbished to work with the four rows of new replacement blades.

The steam turbine's rating or capacity is not being increased. Thus, the replacement of the first four stages to the steam turbine rotor does not constitute a change; it is considered normal maintenance on a geothermal steam turbine rotor.

b. Condenser System Refurbishment

The three main components of the condenser system, the main condenser, the inter condenser, and the after condenser, will be inspected, maintained, and cleaned. No significant repairs are likely. After re-firing the facility, all condensers are expected to perform pursuant to the original design criteria.

The condenser system's nozzles work in tandem with the steam jets to create the vacuum required to remove the non-condensable gases from the condenser system and eject the gases to the Stretford system. Auxiliary steam passes through the nozzles and jets and provides the motive force that creates the requisite vacuum to maintain the power cycle.

Although the condensers are in good repair, an initial visual inspection indicates the nozzles and the jets likely need replacement due to non-compliance with original design criteria. This inspection presented signs of wear and the presence of foreign material tightly bonded to each individual jet and nozzle set. The nozzles for the steam jet ejectors and the steam jets have been removed to facilitate a detailed engineering inspection to determine if there is any retained value. It is anticipated that the nozzles and ejectors will be re-installed and used as a back-up system.

In the alternative, utilization of a vacuum pump as the primary provider of the requisite power cycle vacuum is being pursued. This alternative possesses operational advantages in that the

vacuum pump does not require steam to provide motive force to create and maintain the vacuum for the power cycle. The use of the pump also allows the plant to start with significantly less, and possibly no steam, venting to the atmosphere, as is typical with steam jets. Additionally, the use of the vacuum pump will enhance the performance of the Stretford system by providing a higher feed pressure and sustained flow of the non-condensable gas stream to the Stretford abatement equipment. These advantages lessen the potential for environmental effects during operation by reducing or eliminating H_2S emissions during start up and allowing the Stretford to operate with optimum efficiency while abating H_2S.

The enhanced flow of the non-condensable gas stream provided by the pump will not adversely affect the end-of-pipe result of the sweet gas (very low concentration of H_2S) that exhausts from the Stretford polishing tower. It will be the same or slightly better than that produced by the steam jet ejectors. Because the vacuum pump has direct contact with the non-condensable gas stream, it requires a modified permit from LCAQMD. This permit modification process for the pump has been initiated with the LCAQMD.

c. Installation of Distributive Control System

A detailed inspection of the Fuji designed control panel for the turbine-generator set revealed that key components of the control system have been removed. Many chart and events recorders are technically outdated and, therefore, replacement parts are no longer available. The entire control system is at least 25 years old and needs to be compatible with current technology mandated by reliability standards and/or interconnection requirements. In view of the cost and time to improvise solutions to utilize the current system, BRP determined it is more reasonable to design a new distributive control system ("DCS") for the turbine-generator set that uses currently available technology.

The design and installation of a new DCS will not adversely change or affect the steam utilization-power generation process. No adverse environmental impacts are likely, as the power cycle will stay the same while the plant will be made capable of being operated more safely, efficiently, and reliably.

d. Cooling Tower Refurbishment

The cooling tower will be maintained, refurbished, and repaired to operate as originally designed. No design modifications will be made to the cooling tower. The tower mechanicals (fan motors, blades, drive shafts, and gear boxes) will be refurbished. The dilapidated wooden tower deck will be replaced with new fiberglass deck material. The nozzles and laterals will be repaired or replaced as necessary, and the drift eliminators will be replaced.

The cooling tower will provide the requisite cooling capacity for the plant at the generation load anticipated with the re-start of operations. The refurbished cooling tower will remain consistent with the conditions contained in the Final Decision and the applicable permit conditions contained in the LCAQMD-issued permits. Thus, these repairs do not present potential significant impacts for consideration.

e. Balance of Plant

The balance of the plant, with the exception of changes noted below, will continue to correspond with the original configuration. There will be general maintenance, refurbishment, and replacement where necessary. There will be no modification to the plant's footprint. No new building construction or construction of any electric transmission line is planned. Existing roadways will be maintained, and no new roads will be created. The noise abatement devices used during initial operation of the plant equipment will continue to be used for the re-start of plant operations and thereafter. The plant yard will continue to have sufficient perimeter berms and will be re-surfaced to establish the impenetrability integrity.

(1) Steam piping system changes

Several improvements are planned for the steam supply system. First, a 36-inch main steam isolation valve will be added before the steam strainer just prior to entering the building. Second, the steam stacking device will be refurbished and improved. The steam stacking system will be controlled by the DCS and the chemical injection rate will be controlled with precision to match the steam flow.

The steam washing system will be re-designed to insert oxygen free water from the hotwell into the steamline in a fog-like condition. The old steam washing system was likely a significant cause of the damage to the steam turbine. This new system will do a much better job of removing boron, ammonia and fine particles from the steam before it enters the steam turbine. To demonstrate acceptability of steam quality, BRP will install a new 2" sample valve and penetration downstream of the Burgess Manning main steam packer separator vessel.

The changes to the steam supply system also require corresponding changes in the LCAQMD air permit for the Steam Transmission Line. An application addressing these changes has been submitted to the LCAQMD, a copy of which is provided at *Exhibit E*. The changes to the steam supply system are beneficial in nature and will not cause an increase in adverse effects. As such, the changes should be approved by the CEC.

(2) Hydrogen Sulfide abatement system changes

The Stretford hydrogen sulfide (H_2S) abatement system will continue to meet or exceed original performance expectations and comply with air quality mass emission standards. The system should achieve the 99 percent maximum abatement efficiency rate established in the Final Decision (Part One B 1, pg. 9). Nevertheless, a thorough engineering review is being conducted to identify subtle changes to enhance the reliability and overall performance of the integrated Stretford system without any significant modifications. Some enhancements of the primary equipment are planned. The primary equipment, such as the Stretford solution venturi, polishing tower, delay tank, and various other tanks will be maintained, refurbished, and/or enhanced and, subsequently, tested to demonstrate readiness for operation.

Control of the Stretford system will be through the DCS. Automated compatibility is necessary to operate pursuant to original design where possible, while enhancing the Stretford system's ability to perform at the efficiency rate required in the Final Decision. Other improvements planned for the Stretford System include adding a new skim line and installing air spargers in the oxidizer tanks.

The operation of the secondary hydrogen sulfide abatement system will also be improved by eliminating the use of hydrogen peroxide and adding the use of an iron chelate. In order to facilitate the use of the industry standard iron chelate, a new hot condensate pipeline will be installed to deliver condensate into the bottom or the cooling tower basin. Dispersing condensate in the cooling tower basin avoids having the hot condensate rain spray down from the top of the cooling tower. This avoids stripping of H_2S from the tower rain and releasing it into the environment. The new length of pipeline will be installed under the surfaced yard and run approximately 25' to the cooling tower basin. Once in the cooling tower basin, the pipeline will terminate in a 10' sparger to distribute the hot condensate with iron chelate into the basin. The trenching required for this short length of pipeline will be entirely in previously disturbed soil underneath the currently paved yard area. Therefore, this length of pipeline presents no significant soils, cultural or water quality impact issues.

(3) Addition of in-line mercury filter to sour gasline.

An inline mercury vapor filter utilizing activated carbon will be installed upstream of the Stretford System on the sour gasline. This filter will remove mercury vapor ensuring no mercury will form mercuric sulfide, which would present potential contamination of the internal surfaces of the Stretford equipment and exposure risks. It will also ensure no mercury contamination of the sulfur produced by the Stretford process.

(4) Exterior lighting reductions and improvements.

Exterior lighting will be modified to minimize the impact of lighting upon the surrounding area. The 360-degree exterior lighting on the outside will be replaced with inward facing lighting to minimize glare and other negative visual effects from lighting on adjacent property owners.

f. Summary of plant changes and related effects

There will be minimal environmental effects caused by work on the steam plant. Most work is being accomplished under existing permit authority. As described in the Air Quality Analysis, *Exhibit E,* some of the changes require modifications to air permits issued by LCAQMD. These changes are in progress and LCAQMD is treating them as enhancements to the plant. The actual changes described above are beneficial in nature and do not increase any adverse environmental affects that might be caused by the operation of BRPP. As a result, the changes to the steam plant and its related systems do not have the potential for significant adverse environmental effects.

IV. ANALYSIS OF PROPOSED CHANGES AND RELATED EFFECTS

The proposed changes to the Conditions of Certification ("COC") and project description are analyzed below. Several discipline areas are examined in more complete detail in several exhibits. Exhibit E provides Change Applications submitted to the Lake County Air Quality Management District. Exhibit F examines potential effects of the changes to the project on biological species and also examines changes to the regulation of biological species since the Final Decision was issued. Exhibit G examines potential traffic and transportation effects. Exhibit H considers possible cultural resources issues and Exhibit I addresses noise effects.

A. Needed Changes to Final Decision to Allow Operation

Since acquiring BRPP in 2001, BRP's objective has been to operate the facility. Currently, BRPP is in "Suspended Status" meaning that it operates under a reduced environmental monitoring program. Many COCs issued in the Final Decision are suspended and do not currently require compliance. Thus, the Final Decision must be changed to allow operation of BRPP. Returning BRPP to operation will require that suspended COCs be restored to active status and/or modified, if necessary, to reflect current regulatory approaches. A few minor project description changes will need to be approved as well. BRP, therefore, petitions the CEC for approval of a change in status that will allow the facility to re-start and commence commercial operation.[2] Several Exhibits to this petition provide expanded detail about the changes to the plant or to the COCs in the areas of Air Quality, Water Quality, Biological Resources, Traffic and Transportation, and Cultural Resources.

1. Project Description Changes

As discussed above, there are several changes to the design or operation of the plant that are beneficial in nature, but are changes nonetheless. The changes occurring at or around the plant site are listed in *Exhibit D* and described in Section III, above. The following are plant changes that fall under the jurisdiction of the CEC and should be formally agreed to and adopted as changes to the Final Decision:

a. Installing vacuum pumps to maintain vacuum in condenser versus reliance upon steam injectors;
b. Installing a distributive control system for plant;
c. Adding a new skim line in Stretford H_2S abatement system ;
d. Adding mercury vapor filter upstream of Stretford H_2S abatement system;
e. Adding air spargers to the oxidizer tanks in the Stretford H2S abatement system;
f. Changing the operation and design of the secondary H_2S abatement system;

[2] Previously, BRPP was not operated "commercially," meaning that electricity produced by BRPP has never been sold to an end user or to a distributor such as Pacific Gas and Electric. Instead, BRPP electricity was used by DWR to meet its own needs. This distinction is not relevant to this Petition to Amend, but is relevant for a separate, but concurrent, Renewable Portfolio Standard AFC previously submitted for BRPP.

g. Adding a second main steam line isolation valve;
h. Installing variable speed, automating steam stacking system;
i. Installing new design in steam washing system;
j. Adding steam sampling point downstream of Burgess Manning main steam separator; and,
k. Installing exterior lighting abatement improvements.

2. Changes to Conditions of Certification

Currently suspended conditions will need to be activated. *Exhibit* C provides a comprehensive chart detailing the status of the conditions and the effect that these proposed changes will have on them. *Exhibit D* provides the new language for all proposed changes to COCs in underline and strikethrough format.

B. Information Required by Section 1769(a)(1)

1. Complete description of the proposed modifications (including new language for any conditions that will be affected) - *Section 1769(A) (1)(A)*

Section IV. A, above, lists the project description and COC changes requested for the commencement of commercial operations at BRPP. Section III, above, provides a description of the physical project changes occurring. *Exhibit E* provides additional details regarding the changes related to Air Quality.

The physical changes at BRPP are *de minimis*, yet, positive in nature, and require primarily recognition of the new, correct project description. This petition also seeks changes to the COCs that involve activating suspended conditions and modernization of other conditions. The proposed changes to conditions are provided in the COCs Chart in *Exhibit C*, and in the Proposed Conditions Language found in *Exhibit D*. In the case of Air Quality, Biological Resources, Traffic and Transportation, and Cultural Resources, exhibits specific to those topics further explore the effects of the renewed operation of BRPP on those COCs. In the case of Air Quality, the proposed changes to the relevant LCAQMD permits are also explained.

Taking these changes into consideration in their entirety, it is clear that the re-start of the existing BRPP involves little, if any, discussion of environmental effects not originally analyzed for and permitted by the Final Decision. The main task at hand is ensuring that the COCs are properly activated and updated and that the positive or neutral effects of these changes are properly verified. It is critical that the current, final state of the COCs is clearly delineated allowing full and proper compliance by BRP in the future.

2. Necessity for the proposed modification - *Section 1769(a) (1)(B)*

BRPP is an electricity generating facility powered by geothermal steam. Geothermal energy is a renewable resource. This is particularly validated by the successful steam reservoir recharge

programs in use at The Geysers since 1997. The re-firing of BRPP has special significance in view of the enactment of the Renewable Portfolio Standard (RPS) by the California State Legislature (Senate Bill 1078) in 2003. Re-firing of the plant will contribute to achieving California's RPS goal for renewable electric energy. That goal requires all major California investor owned utilities (IOU's) to buy one percent or more each year so that at least 20 percent of total electric supply portfolio is made up of renewable generation by 2017.

Using renewable geothermal steam to power an electricity generating plant replaces fossil-fueled generating capacity. Taking advantage of such renewable resources is sound environmental policy. The re-firing of the BRPP will enhance environmental quality because using renewable green energy, such as geothermal steam, will supplant those emissions associated with fossil-fueled electricity generation.

BRPP is already built, but has been suspended from operation for more than 15 years. All environmental permits are current and require only administrative changes such as the changes sought in this petition, to allow operation of BRPP once again. In view of the current energy setting in California, it is necessary and prudent to restore operations at BRPP.

3. **If the modification is based upon information that was known by the petitioner during the certification proceeding, an explanation why the issue was not raised at that time** - ***Section 1769(a) (1)(C)***

The information that now affects the purpose of this petition could not have been foreseen or known at the time of the original certification proceeding. DWR was the originating petitioner of that proceeding and intended to operate BRPP with no intention of shutting down and placing the facility in a suspended status. Nevertheless, DWR suspended operations nearly six years after commencing operation and ultimately determined to sell the facility to BRP based upon belief that BRP would refurbish and operate the plant. The CEC approved the transfer of ownership of BRPP on May 30, 2001. (See *Exhibit A*, *Order 01-0530-0.*)

BRP anticipated it would file a petition to re-fire the plant within six to nine months after the transfer of ownership. Filing the petition to restart the plant and steamfield was delayed due to the influence of the California energy crisis and related factors, which affected the ultimate financing of the project. These factors impeded the capability of BRP to submit the re-power petition until now.

4. **If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, an explanation of why the change should be permitted** - ***Section 1769(a) (1)(D)***

This petition is based upon new information relevant to the Final Decision. The subsequent shutdown, suspended operational status, and sale of the facility changed the underlying assumptions incorporated in the Final Decision. Moreover, Orders 93-0426-02, 97-1203-1(a), 01-0530-07, and 05-0511-03 were approved by the CEC in view of changing circumstances not anticipated during the original proceedings.

DWR could not reasonably have foreseen these events at the time the Final Decision was approved in 1980. These events constitute new information and affect a change in the assumptions incorporated into that Final Decision. Therefore, BRP's Petition should be approved.

5. An analysis of the impacts the modification may have on the environment and proposed measures to mitigate any significant adverse impacts - *Section 1769(A) (1)(E)*

a. Summary of Impacts Upon Environmental Resources

The Final Environmental Impact Report (FEIR) for the Bottle Rock Geothermal Project was prepared and completed pursuant to the statutory requirements of the California Environmental Quality Act (CEQA) and the guidelines of relevant and applicable statutes and regulations. The FEIR was approved by the CEC on October 14, 1980. The findings of the FEIR were incorporated into the Final Decision on November 5, 1980. These findings were and are intended to mitigate any adverse environmental impacts. This Petition to Amend the Final Decision requests changes to the project description, which are improvements to BRPP and that result in benefits. This Petition to Amend also seeks appropriate changes to the COCs to reflect an operational status of BRPP, and where needed, to reflect modern requirements. Finally, this Petition to Amend seeks approval to commence operations at BRPP. This final change, however, does not reflect new or unanalyzed impacts. Except where the project description is or COCs are changing, the return of BRPP to operational status does not present new impacts that require assessment.

A compliance monitoring system was established, as directed by the Final Decision, to assure that the Project operated in compliance with air and water quality, public health and safety, and other identified categories pursuant to the applicable regulations, conditions, and guidelines. The CEC found this monitoring program sufficient to satisfy requirements that assure full compliance. When ownership of BRPP was transferred, the responsibility for full compliance with the terms and conditions contained in the Final Decision also transferred to BRP. BRP has maintained the environmental compliance monitoring program since the transfer of ownership in 2001, pursuant to the terms and conditions of CEC Orders 93-0426-02, 97-1203-1(a), and 05-0511-03. There have been no environmental incidents during this extended period of suspended operation.

Because the changes to the project description are beneficial in nature, and because changes to the COCs are being made, where necessary, to make them current, the re-firing of BRPP will have no new adverse environmental impact beyond that permitted in the Final Decision. There is no experiential or reasonable basis to anticipate any new adverse environmental impacts not already addressed in the FEIR and the Final Decision.

b. Air Quality

Geothermal power plants at The Geysers in general emit H_2S and particulate matter (PM) from the cooling tower. Small quantities of ammonia, arsenic, boron, mercury vapor, radon, and other compounds are contained in and transported by the geothermal steam. Most of these elements and their compounds are deposited on the internal surfaces of the operating equipment that come into contact with the steam or the non-condensable gases. Occasions will occur when some elements or compounds, such as mercury vapor and radon, can be emitted to the atmosphere in very low concentrations. The most problematic compound emitted is H_2S, which is an odor nuisance that has a threshold of 30 parts per billion (ppb). This concentration corresponds to the State ambient air quality standard for H_2S. Air quality effects associated with the steam plant are regulated at BRPP by LCAQMD and the CEC. Steamfield operations are regulated by the LCAQMD and the California Department of Oil Gas and Geothermal Resources. Permits for the plant, steam transmission line, and steam wells have not expired or lapsed at any time since the project was initially operated. BRP has maintained and continues to maintain all applicable permits for the plant and the steam wells since it purchased BRPP. All permits are current and enforceable.

Several improvements are planned for the H_2S abatement systems. Applications to modify the air permits for the steam transmission line and plant have been submitted to the LCAQMD, copies of which are included in *Exhibit E*. These plant changes are described above in Section III and are also assessed below.

(1) Routine Operations

Abatement of H_2S at BRPP is primarily accomplished by the Stretford abatement system. The Stretford system is permitted by the LCAQMD as an integral part of the plant. The sweet gas that results from the Stretford system process must comply with the conditions specified in the permit. The Stretford must comply with 99 percent abatement efficiency for removing H_2S from the non-condensible gas stream. A continuous H_2S monitor on the sweet gas stream examines the Stretford's performance. This monitor must meet with the approval of the LCAQMD to assure compliance with approved detector principles and permit conditions. Ultimately, the sweet gas is piped to the cooling tower where it is diluted by millions of pounds per hour of air before it is emitted from the cooling tower.

The proposed changes to the Stretford system detailed above in Section III include adding a new skimline and installing air spargers in the oxidizer tanks. These changes are entirely beneficial and will improve Stretford system performance. Therefore, no significant adverse environmental effects will be caused.

The behavior of the non-condensible gases allows some of the H_2S to be absorbed by the steam condensate. When this occurs, the secondary abatement system is utilized by injecting certain chemicals in the proper portions into the condensate just downstream of the main condenser hotwell to abate the H_2S to an acceptable level. This reaction occurs in the hot condensate and is

ultimately discharged into the cooling tower basin where the abated condensate and cooling tower water mingle and continue while the condensate and cooling water commingle, but before the fluid is transported to the top of the tower from where it rains down through the tower for cooling. No hazardous materials or wastes are produced by the secondary abatement system. Hence, the Stretford and secondary abatement systems must work in concert with each other, since any H_2S that is not abated will be emitted from the cooling tower and into the air environment. Those remaining unabated emissions of H_2S must be less than or equal to the permitted standard.

As described in Section III above, this operation reflects a change from past design and operation. Hydrogen peroxide ("H_2O_2") will be replaced with iron chelate and the routing of the hot condensate is changed to improve abatement reaction time and to eliminate H_2S-rich condensate from going to the top of the tower. This prevents stripping of the H_2S for release into the environment. This reaction product remains in solution and will be reinjected. Therefore, no significant adverse environmental effects will be caused.

The cooling tower stacks are the official point source for H_2S emissions. The maximum permitted H_2S mass emission limit for the plant is five pounds per hour measured while exiting from the cooling tower stacks. This limit accounts for the combined H_2S emissions from all plant sources including fugitive emissions and complies with LCAQMD rules. Several improvements or repairs are proposed for the cooling tower. This includes replacing the wooden surface with fiberglass on top of the tower and replacement of the drift eliminators. None of these changes are design changes, and the original specifications will be maintained. Therefore, no significant adverse environmental effects will be caused.

As an integral part of routine plant operations, BRPP uses a steam washing system to remove any debris entrained in the incoming steam prior to the steam reaching the turbine. This washing process is identified as desuperheating the steam in the plant permit. These names identify the exact same process used for different purposes. BRP proposes to replace the existing steam washing system, as it is likely the original system was the cause of the damage imposed upon the turbine rotor. An application has been submitted to the LCAQMD to change the steam washing system and is provided in *Exhibit E*. These changes are to this system are entirely beneficial and therefore, no significant adverse environmental effects will be caused.

(2) Plant Outages

There are occurrences when BRPP will be out-of-service for some reason. There are devices at the plant designed to abate H_2S or cause it to be abated if the plant should be forced out of service. The facility is equipped with a turbine bypass system, which allows the incoming steam to bypass the turbine and condense in the condensing system and route the non-condensable gases to the Stretford system where the H_2S is abated to comply with the permitted mass emission limit.

The plant is also equipped with a steam stacking muffler. The muffler is used as a default abatement device where the incoming steam is routed away from the plant and directly to the muffler. Chemicals are fed into the steam line far enough upstream of the stacking muffler to

abate the H_2S while the steam is in route to the stacking muffler. The muffler is designed to reduce or muffle the sound impact created by the large mass flow of steam through a small opening. These abatement devices remain an integral part of the plant abatement scheme to assure there is no adverse impact on ambient air quality and the environment. The only proposed change to this system, as described in Section III above, is to install electric motor-driven, variable-speed pumps. This change is entirely beneficial and therefore, no significant adverse environmental effects will be caused.

(3) Diesel Engine Operations

BRPP has one stationary diesel engine-generator set, which is used as an emergency power supply. The fuel for this engine is stored onsite in a double walled steel tank. The engine was not previously permitted through the LCAQMD because it was not required to be in the past. Today, a stationary diesel engine must be permitted by LCAQMD. BRP's application for the proper permit to operate the diesel engine is pending.

The engine is exercised monthly for a period of time, but total operating time will not be allowed to exceed maximum, current stationary operating time allotments allowed for diesel engines.

There are no changes to the design or emission characteristics of the diesel engine. The new permitting requirements will impose maximum operation time limits, which might be the equivalent of a beneficial change because previously the diesel engine was allowed to run as much as needed.

(4) Summary of Air Quality Impacts

The changes to the various air quality related systems at the plant are beneficial and positive in nature and thus, do not involve the potential for significant adverse environmental effects. In fact, the most probable effect of the actual changes at BRPP related to air quality will be an enhancement.

c. Water Quality and Water Resources

Potential water quality impacts identified in the Final Decision were spills, drifts, and disposal. Existing COCs, WR 6-1 through WR 6-6, provide required compliance and mitigation. Considered comprehensive, these conditions create a compliance regime where all collected surface and accumulated storm water is reinjected into the steam reservoir using injection wells. This provides a zero liquid discharge system for BRPP. Compounds contained in the cooling tower drift and oil leaked onto the ground from vehicles and machinery can affect water quality when captured via storm runoff. As a key factor, all accumulated storm runoff will be diverted to the re-injection system for disposal into the steam reservoir. Also, graded surfaces at the facility will be maintained such that all drainage will flow to permitted sumps and prevent percolation of any potential contaminant into surface waters and the groundwater basin. These actions are key elements that prevent adverse environmental impacts to water quality and water resources.

As required by WR 6-3, to prevent spills, discharges or unauthorized releases of H_2S abatement materials or condensate, the use of berms and basins, as well as use of a coating for the plant yard with an impenetrable material will collectively act as sufficient mitigation to prevent adverse environmental impacts. In addition, there is a berm that, as a continuum, surrounds the yard. A third berm also encompasses the Stretford system. Basins exist for the cooling tower and blowdown injection sump, as well as the chemical mixing area for the Stretford. Containment structures also surround the other abatement chemical storage facilities. Small asphalt berms that surround the plant yard will be repaired and an impenetrable coating will re-surface the entire yard. This provides the containment capacity to prevent a spill, discharge, or unauthorized release and facilitate proper management of the event.

Proper management and disposal both on and off-site of hazardous wastes is a regulatory requisite. Complete management of all hazardous wastes will comply fully with all applicable laws, ordinances, regulations, and statutes to ensure no adverse impacts to water quality and water resources or the environment at large.

d. Soils

BRPP was properly graded and surfaced to prevent soil erosion at the facility. Maintenance and management of the existing grading and surfaces will continue to prevent soil erosion. No new cut or fill activities will occur. Soil erosion and associated loss of watershed and biological habitat should not occur and, thus, no adverse impacts are anticipated with the re-firing and operating of the facility.

e. Waste Management

The primary solid material produced by plant operation will be elemental sulfur. Sulfur is the co-product formed from abating H_2S by means of the Stretford system. The Stretford sulfur will be managed as filter cake so that it is in a suitable form for marketability. To assure that the produced sulfur is marketable and need not be managed as a hazardous waste, two potential contaminants will be removed before the sulfur can be transported to market.

An in-line mercury filter, or scrubber, will be installed on the sour gas line upstream of the Stretford system. The scrubber will use activated charcoal to remove the mercury from the sour non-condensible gas stream so that when the elemental sulfur is formed by the Stretford process it will not be contaminated with sufficient mercury to require that the sulfur be managed as a hazardous waste. Mercury scrubbers are in common use at other power plants at The Geysers, and the scrubbers have established an outstanding record for effectiveness and efficiency with regard to removing mercury. Application has been made to the LCAQMD to implement these changes, a copy of which is provided at *Exhibit E.* These changes are beneficial in nature and should also be approved by the CEC.

Liquid hazardous wastes in any significant volume are not typical at power plants at The Geysers. This does not include condensate or storm water runoff. Those non- hazardous liquid wastes were dealt with in the water quality section. Special operations may produce various amounts of liquid waste such as equipment oil changes. Waste oil will be transported and

recycled by a proper oil recycler. Periodically, laboratory wastes need to be transported for disposal by the proper transporter and recycler. Likewise, spent solvents from routine maintenance activities will be managed similarly. All liquid waste streams will be properly stored onsite not to exceed the requisite storage time period before transport for disposal or recycling. No adverse impacts to the environment related to these waste streams are anticipated.

f. Biological Resources

FEIR findings determined that no significant impacts on wildlife or vegetation would occur by operation of BRPP. The Final Decision implemented COCs that require certain monitoring or restrict activities in certain ways to ensure no significant adverse environmental impacts occur. BRPP is not and will not be operated differently than was approved by the Final Decision. As a result, no changes should be needed for any COCs for biological resources. Several conditions that were suspended need to be activated. Further, in an abundance of caution, BRP conducted a review of the COCs and changes to legal requirements that have occurred since operation of BRPP began. This analysis is provided in *Exhibit F.* As explained therein, no new issues were identified to require COC changes or impact analyses. No physical changes are being made to habitat or soil, and as a result, there should be no significant adverse effects on biological resources as a result of the re-firing of BRPP.

BRPP's Annual Compliance Monitoring Report for 2005 addressed biological monitoring for impacts on such things as the wildlife water basin/guzzler use and the nest box utilization. No adverse impacts to biological resources were reported during 2005 when well field activity increased significantly. The Annual Compliance Report addresses other key compliance parameters, such as air and water quality, erosion monitoring, and hazardous material storage, to determine what adverse impacts, if any, have occurred at Bottle Rock during the past calendar year. No adverse impacts in these areas were reported.

The Bottle Rock tie line and the heavier tower have been in continuous use since the plant started operation in 1985. Even during suspended operational status, electricity has been back fed into the power plant via the tie line and continues to do so. Recently, PG&E performed the required annual maintenance on the tie line and heavier tower. There were no reports of any nesting birds or any other excursions by any other animals. A BRP employee recently inspected the line and tower with the specific purpose of observing whether there were any nests on the line or in the tower. None were observed. Such observations by PG&E and BRP personnel indicate that the energized tie line discourages birds from roosting or nesting on the line or in the tower structure. The energized tie line and its heavier tower pose no adverse environmental impact as a result of re-firing and operating the plant.

No new roads will be constructed or re-constructed. Existing roads will convert to be maintained for serviceability. These continuing maintenance activities have had and will continue to have minimal adverse impacts upon biological habitat. In addition, no new construction is planned.

As a result of the foregoing, it is clear that this Petition to Amend does not seek changes that have the potential to cause significant adverse impacts to biological resources.

g. Cultural Resources

Exhibit H evaluates an impact analysis and comparison of activities presented during the original construction of the facility to those activities required to re-start BRPP. The analysis determines that no impacts to cultural resources are likely because no disturbance of soil will occur except in a small segment of the cut, graded and paced yard area.

Since suspension of operations, only one COC has remained active, protecting one of five sensitive sites located on the leasehold. BRP is requesting by this Petition that the four suspended conditions be reactivated.

h. Traffic and Transportation

Exhibit G provides an analysis of the potential for congestion, vehicle safety, and parking issues or impacts from the both the general operation of BRPP and because of the changes proposed by this Petition to Amend the Final decision. There is no likelihood of such impacts or issues for many reasons:

- BRPP was designed and permitted to avoid significant impacts during its construction or operation.
- Renewed operation of BRPP will not differ adversely from past operational practices.
- Refurbishment and re-starting of BRPP will only require vehicle and truck traffic levels several magnitudes less than required for construction of BRPP.
- The conversion from hydrogen peroxide to iron chelate for secondary abatement of hydrogen sulfide will greatly reduce required deliveries of chemicals.
- The private access road, High Valley Road, is a well maintained road with appropriate speed limits and sufficient design for safety.
- High Valley Road connects to Bottle Rock Road with sufficient clearances and access.
- Bottle Rock Road has a low level of use.
- The contrast in total traffic to and from BRPP between the recent past and the coming future is unnoticeable.

For these reasons, significant adverse effects to traffic and transportation resources are not expected from approval of this Petition to Amend the Final Decision.

i. Noise

BRP proposes to re-fire BRPP with some changes to its operation and project description. The changes, however, are all positive or beneficial with regard to noise. The use of vacuum pumps instead of the steam jet ejectors will eliminate noise from steam expanding through the steam jet ejectors, as well as any noise related to the vent from the top of the turbine building, which will now be eliminated. Operationally, the project will emit less noise during the day and during the night. Transportation-related noise and some plant noise will be focused on day time hours. BRP will also conduct a new noise survey once the power plant is operating at 17 megawatts of capacity.

These changes will ensure that operation of BRPP will produce less noise than it did when it previously operated. The original decision to permit BRPP will otherwise remain unchanged and, hence, there is no reason not to approve the changes outlined in the Petition that allows BRPP to re-fire to operate.

j. Summary of Environmental Effects of Changes

As the foregoing demonstrates, the changes to the project description for or operation of BRPP do not have the potential to cause significant adverse effects on the environment. All changes to the project description are beneficial in nature. The Final Decision, with proposed COC activation or modification as described above, continues to ensure that the operation of BRPP will not significantly harm the environment.

6. Impacts of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards - Section 1769(A) (1)(F)

The re-firing and operation of BRPP will not affect its ability to comply with all applicable LORS or Conditions of Certification contained in the Final Decision. BRP has committed the requisite resources to support and implement comprehensive compliance with all that is required of operating a power plant in the State of California. BRP's compliance record, has demonstrated an ability to comply with all requirements of the Final Decision and Purchase Agreement, as well as applicable LORS. The changes to the project description actually enhance the ability of BRPP to comply with LORS.

7. How the changes will affect the public - *Section 1769(A) (1)(G)*

The re-firing and operation of BRPP will not have any significant adverse impacts on the public. BRP must comply with all conditions contained in the Final Decision and the respective permits. Many of these conditions were the direct result of comments and concerns voiced by members of the public most likely to be affected by the operation of the plant. The purpose of BRP's compliance monitoring program, as originally developed jointly by the CEC and the original applicant, is to maintain the monitoring program for public benefit.

Furthermore, the immediate public benefits from the re-firing and operation of the plant include the full maintenance of the security gate, the maintenance of the private access road used by the local residents, and the employment of many local citizens. A daily presence further minimizes the potential for adverse impacts that can affect the public.

BRP is a participating member of The Geysers Air Monitoring Program (GAMP). GAMP closely monitors the ambient air quality of the area surrounding The Geysers within Lake County to assure the public at large of full compliance with the ambient air quality standard for H_2S. GAMP is a consortium of industry, agency, and public members that oversee GAMP so as to foster public confidence in the data collected and evaluated to show the impact of plant operations on ambient air quality. GAMP has provided and continues to provide data for the

public benefit that demonstrates Lake County has achieved attainment status with air quality standards for fifteen consecutive years. Lake County is the only California County to achieve such distinction.

Lighting abatement by the plant will also benefit the public by minimizing the impact and sustain an acceptable level of tranquility.

Re-firing and operation of the plant will stimulate some level of public concern for seismic-related issues. The Geysers is a seismically active area and has been so before the advent of geothermal electricity producing development. BRP recognizes that certain activities contribute to increased seismic activity at The Geysers. BRP is a participating member of the Seismic Monitoring Activity Committee (SMAC) that is a consortium of operators, regulators, and public members who work together to address the seismic issue at The Geysers and provides a forum through which to keep the public informed about this important issue.

BRP also anticipates that the CEC will appropriately provide public involvement in the consideration of this Petition to Amend.

8. Property owners potentially affected by the changes - *Section 1769(A) (1)(H)*

The actual, physical location of the property is as follows:

Latitude North:	38° 49' 54.56"
Longitude West:	22° 45' 52.09"
Township: 11 North;	Range: 8 West
Benchmark & Meridian:	Mount Diablo Meridian
Sections 5 and 6	
7385 High Valley Road	
Cobb, California 95426	

The property owner that owns the underlying leasehold has the potential to be affected by the proposed approval of the petition to certify re-powering the project. That property owner, a family partnership, has demonstrated strong support for the re-firing and operation of the plant.

The applicable contact information for the partnership is provided as follows:

Property Owner	**Mailing Address**
V. V. & J. Coleman Partnership	256 Autumn Eve Street
C/o Dianne Hill	Henderson, NV 89074-7105

Additionally there are several homes on the access road to the plant site that could be affected and several homes within a few miles of the plant that could be affected. Contact information for these owners is provided in *Exhibit J.*

9. Potential effect on nearby property owners, the public, and the parties in the application proceedings - *Section 1769(A) (1)(I)*

There are property owners who own parcels adjacent to or nearby the leasehold. The approval of this Petition to Amend should not have a significant adverse impact on these owners. The nearest residence is approximately 500 yards from the plant's turbine building. This residence is primarily a retreat or vacation home, which is used sparingly. There are a number of residences occupied full time. However, there have been no environmental events reported or recorded by any of these property owners as a result of plant activities nor have these property owners informed BRP that they have experienced any other adverse impact from the increased daily activity at the facility.

BRP holds easements for the access road to the facility by assignment from DWR. The easement includes necessary traffic for the operation and maintenance of the power plant. There has been a significant increase in access road traffic to and from the plant. The local speed limit of 15 miles per hour is strictly enforced, and the penalty for violation is significant. The nearby property owners have registered no complaints about the volume of traffic nor have they complained of any violation of the speed limit. Deposition of roadside debris does not occur because employees and contractors are forewarned that such action will not be tolerated. There have been no complaints from local property owners expressing concern about roadside debris.

Odor, lighting, traffic and noise issues that can affect local property owners and the public and the mitigation practices thereof were addressed in the Final Decision. Refurbishing BRPP will not have an adverse effect on property owners, residents, or parties to the proceeding. Approval of the Petition to Amend will not establish a new use or expand an existing one. Rather, the petition seeks to return BRPP to operation in a manner well within the current permitted environmental envelope.

V. CONCLUSION

BRPP is already built, but has been suspended from operation for more than 15 years. The Final Decision must be modified to reactivate suspended Conditions of Certification, thus allowing operations to resume at BRPP. In view of the energy conditions and policies in California, it is necessary and prudent to re-fire the Bottle Rock Power Plant. By utilizing geothermal energy, BRPP provides renewable energy that furthers California's goals of reducing the use of dependence on fossil fuels. Further, because BRPP is an already existing and permitted project, returning it to operation is far more efficient and timely than constructing a new power plant to provide the same amount of electrical power.

Periodic and regular monitoring of air quality, water quality and resources, biological resources, hazardous materials, and other relevant parameters, was accomplished through out plant operations and has continued to be accomplished during the entire period of suspended operations check space. No adverse impact to the environment, property owners, or public has been reported at any time during actual or suspended operations.

The monitoring program for the operating plant, as defined in the Final Decision, will be fully re-implemented and the results of monitoring the plant's operating impacts will be reported in the requisite Annual Compliance Monitoring Report that will be submitted to the CEC and other stakeholder agencies.

This Petition to Amend will restore suspended Conditions of Certification, approve specific project description improvements, and update and modify Conditions of Certification to allow renewed safe and compliant operations at BRPP. The information presented in this Petition has shown that these changes will not result in significant adverse effects to the environment and will allow BRPP to operate in accordance will all applicable laws, ordinances, regulations, and standards.

Dated: August 4, 2006

STOEL RIVES, LLP

By: John A McKinsey

John A. McKinsey
Attorneys for Bottle Rock Power, LLC

LIST OF EXHIBITS

A. Past CEC Orders
B. List of Physical Project Changes
C. Condition of Certification Chart
D. Proposed New Condition Language
E. Air Quality Analysis
F. Biological Resources Analysis
G. Traffic and Transportation Analysis
H. Cultural Resources Analysis
I. Noise Analysis
J. List of Potentially Affected Property Owners

EXHIBIT A

EXHIBIT A
DOCUMENT 1 OF 3

STATE OF CALIFORNIA—THE RESOURCES AGENCY
PETE WILSON, Governor
CALIFORNIA ENERGY COMMISSION
5 NINTH STREET
SACRAMENTO, CA 95814-5512

ORDER NO. 93-0426-02

STATE OF CALIFORNIA
Energy Resources Conservation
and Development Commission

DOCKET

DATE: _____

RECD. _____

In the Matter of:	)	Docket No. 79-AFC-3
	)	(P800-80-013)
Department of Water Resources Bottle Rock Geothermal Power Plant	)	Order Approving Modified and Reduced Environmental Monitoring During the Suspension of Operations

The Department of Water Resources (DWR) has submitted a request to the California Energy Commission (CEC) to temporarily amend the environmental monitoring requirements in the November 5, 1980 Commission Decision for the DWR Bottle Rock Geothermal Power Plant (Bottle Rock). The amendment will temporarily reduce and/or modify the environmental monitoring requirements contained in the Conditions of Certification (Conditions).

The Bottle Rock facility, certified with an expected generating capacity of 55 megawatts, has rarely attained an output of 40 megawatts during nearly six years of operation. Therefore, DWR has decided to suspend all operations, up to five years, to determine whether it is economically feasible to resume operations.

STAFF RECOMMENDATION

Staff has analyzed the amendment request and based on its analysis, recommends that the Commission adopt this order. No potential new or additional unmitigated significant impacts are anticipated as a result of the reduced and/or modified environmental monitoring requirements.

Based upon staff's analysis and recommendation, the Commission finds:

- The proposed modifications and reductions in environmental monitoring are consistent with the intent of the Conditions adopted in the Bottle Rock Commission Decision;

- The proposed modifications and reductions in environmental monitoring do not appear to harm the public or the interest of any previous parties to the certification proceeding;

- DWR, Department of Fish and Game, Lake County Planning Department, Central Valley Regional Water Quality Control Board and the Lake County Air Quality Management District are in agreement with the proposed modifications and reductions in monitoring;

- The proposed modifications and reductions are based on information that was not available to the parties prior to Commission certification;

- DWR has submitted a satisfactory plan to maintain the power plant during the suspension; and

- There will be no new or additional environmental impacts associated with the proposed modifications and reductions in monitoring.

CONCLUSION AND ORDER

The California Energy Commission (CEC) hereby adopts staff's recommendations and findings as its own, and based upon DWR's request to reduce and/or modify environmental monitoring during the temporary suspension of operations at its Bottle Rock facility, orders that the Conditions as contained in the November 5, 1980 Commission Decision for Bottle Rock be temporarily amended as set forth herein.

The General Provisions listed in the Commission Decision shall remain in force.

DWR shall notify the CEC Compliance Project Manager (CEC CPM) three months prior to resuming operations pursuant to the Conditions in effect prior to the date of this Order. Staff will review said Conditions to assure that no new circumstances have arisen which may affect public health or safety. The public will be notified when DWR notifies the CEC CPM that they intend to resume operations.

The operator shall provide a statement acknowledging that they have read and reviewed the Conditions, that they understand the Conditions, and that they agree to abide by those duties and obligations as described.

DWR shall also notify the CEC CPM one year prior to facility closure to ensure that an approved Facility Closure Plan is in place.

The suspension period is herein defined as five years from the date of the Commission Order approving the amendment to modify the Conditions for Bottle Rock. If DWR wishes to request an extension, they must notify the CEC CPM six months prior to the end of the suspension period.

The following specific Conditions apply during the temporary suspension of operations at bottle Rock:

Air Quality

Suspend original Conditions 1-1 through 1-6. Issue Conditions 1-7 and 1-8.

1-7. DWR shall participate in Geysers' Air Monitoring Program (GAMP) III for the life of the program.

Verification: DWR shall submit in the Annual Compliance Report a statement describing DWR's participation in GAMP.

1-8. During the suspension period, DWR shall maintain all existing Authorities to Construct (ATCs) and Permits to Operate (PTOs) required under Lake County Air Quality Management District (LCAQMD) regulations.

Verification: DWR shall submit in the Annual Compliance Report to the CEC CPM appropriate confirmation from the LCAQMD that all ATCs and PTOs are current and active under the terms and Conditions of LCAQMD Rules and Regulations.

DWR shall also include in this report a statement regarding any complaints and actions of resolution for air quality for the DWR Bottle Rock facility.

For the duration of the suspension and any time when the plant is operating, DWR shall submit an Annual Compliance Report for each calendar year no later than February 15th, of the year following the reporting year.

Public Health

Suspend original Conditions 2-1 through 2-9. No new Conditions issued.

Socioeconomic/Aesthetics

Suspend original Condition 3-1. Original Condition 3-2 shall remain in effect.

Cultural Resources

Suspend original Conditions 4-1 through 4-4. Modify Condition 4-5 to read as follows:

4-5. DWR shall ensure that the existing fence on the north side of site CA-LAK-609 is maintained.

Verification: A statement verifying compliance shall be provided in each Annual Compliance Report filed with the CEC CPM.

Biological Resources

5.B - Requirements

Original Condition 5.1.a. through 5.1.h. are suspended, original Condition 5.2 remains in effect. The new Conditions, 5-3.a. through 5-3.i. and 5-4, as set forth below, shall substitute for the original Conditions 5.1.a. through 5.1.h. and for the requirements contained in the original Biological Resources Mitigation and Implementation Plan.

5-3.a. The DWR shall continue annual soil/duff monitoring and leaf tissue analysis to determine boron levels until the DWR and CEC CPM determine that no further contamination or cumulative impacts remain.

Verification: The DWR shall submit to the CEC CPM by December 15, 1993, and of each subsequent year, an annual monitoring report which contains the results and a discussion of the year's monitoring and verifies compliance with the condition.

5-3.b. The DWR shall continue surface water sampling at the following 5 sites: Kelsey Creek immediately upstream of the confluence with Alder Creek; Kelsey Creek 500 feet downstream of its confluence with High Valley Creek; Alder Creek immediately upstream of its confluence with Kelsey Creek; High Valley Creek immediately upstream of its confluence with Kelsey Creek; and Kelsey Creek near Kelseyville.

Sampling shall be conducted four times a year, in January, April, July, and October.

Protocol: Each surface water sample shall be analyzed for boron, sodium, sulfate, calcium-magnesium hardness, Ph, alkalinity, settleable solids, non-filterable residue, turbidity and specific electrical conductivity.

Additionally, during April, July and October, the DWR will collect and identify bottom-dwelling organisms from at least one square meter of stream-bed at each site and make special trace metal determinations for copper, iron, manganese, lead and zinc.

Verification: The DWR shall submit to the CEC CPM by December 15, 1993 and each subsequent year, an annual

monitoring report which contains the results and a discussion of the year's monitoring and verifies compliance with the condition.

5-3.c. The DWR shall continue groundwater sampling at the following five sites: Nance Spring, Union Oil Spring, Coleman Well, Jadiker Spring and Francisco well.

Sampling shall be conducted four times a year, in January, April, July and October.

Protocol: Each groundwater sample shall be analyzed for boron, sodium, sulfate, calcium-magnesium hardness, pH, alkalinity, non-filterable residue, specific electrical conductivity, copper, iron, manganese, lead and zinc.

Verification: The DWR shall submit to the CEC CPM by December 15, 1993, and each subsequent year, an annual monitoring report which contains the results and a discussion of the year's monitoring and verifies compliance with the condition.

5-3.d. The DWR shall maintain the nest boxes and wildlife water basins in working condition. Wildlife use of these habitat improvement projects will be monitored annually using the same methodology that has been used in the past. (See 5-3.i. below)

Verification: The DWR shall submit to the CEC CPM by December 15, 1993, and each subsequent year, an annual monitoring report which contains the results and a discussion of the year's monitoring and verifies compliance with the condition.

5-3.e. Deer pellet group counts shall be sampled by the DWR every 6 months, using the same methodology as in past sampling. (See 5-3.i. below)

Verification: The DWR shall submit to the CEC CPM by December 15, 1993, and each subsequent year, a report which contains the results and a discussion of the monitoring and verifies compliance with the condition.

5-3.f. Vegetation (quantity and species composition) monitoring shall be continued by the DWR on the two 25 acre study plots twice in the next ten years.

Protocol: Once during the first five year interval and once during the second five year interval. The same methodology will be used as in the past for monitoring of these plots. (See 5-3.i. below)

Verification: The DWR shall submit a report to the CEC CPM by December 15th of the year of the monitoring action, which contains the results and a discussion of the monitoring and verifies compliance with the condition.

5-3.g. Bird monitoring in the black oak and chaparral study areas shall be conducted three times in the next 10 years by the DWR. This monitoring will use the same methodology (See 5-3.i. below) as past monitoring of these study areas. Monitoring will be spread over the ten year period.

Verification: The DWR shall submit to the CEC CPM by December 15th of the year of the monitoring action, a report which contains the results and a discussion of the monitoring and verifies compliance with the condition.

5-3.h. DWR shall monitor erosion on an on-going basis during the rainy season. Inspections shall include all cut and fill slopes and other disturbed areas. Erosion problems shall be immediately repaired.

If temporary repairs are necessary during the rainy season, DWR shall complete permanent repairs to those erosion problems by October 10th of each year.

Verification: The DWR shall submit to the CEC CPM by August 15th of each year an annual report which includes results of erosion monitoring when erosion problems are discovered. This report will describe the problems discussed and action taken to correct the problems.

During years when no erosion problems occur, and no corrective action is required, a brief discussion may be included and submitted in the December 15th annual report.

5-3.i. A Biological Resources Monitoring and Mitigation Report (BRMMR) shall be prepared to provide the results of the previous year's monitoring. This report will be submitted by December 15th each year. The 1993 report will collate and summarize all methodologies used to satisfy conditions 5-3.a. through 5-3.h.

Verification: The DWR shall submit to the CEC CPM by December 15, 1993, and of each subsequent year, annual BRMMR which verifies compliance with the Biological Resource Conditions.

Upon reasonable notice the CEC CPM, Lake County staff, the Regional Water Quality Control Board staff, and the California Department of Fish and Game (CDFG) staff, shall be granted access for inspections.

5-3.j. If any specific mitigation measure or monitoring program is determined to be ineffective, or if the CEC staff receives any submittal, complaints, or other information from the DWR, other agencies, or the public, that indicates one or more significant impacts are occurring on the leasehold subject to CEC jurisdiction, DWR and the CEC staff shall meet to determine what further measures shall be taken to correct or reverse these impacts.

Verification: The DWR in consultation with CEC will take action to correct the problem. If the problem cannot be resolved by staff, the compliance monitoring dispute resolution process will be utilized.

5-4. Monitoring of wildlife use of the revegetated cut and fill slopes shall be initiated and conducted by the DWR three times, spread throughout the next 10 years. This effort will include: birds; deer; reptiles; small mammals; and rabbits/hares. DWR shall develop a methodology and a proposed schedule for these monitoring studies.

Verification: DWR shall submit the methodology and a proposed schedule for these monitoring studies to the CEC CPM for acceptability, 60 days prior to the start of monitoring during the first monitoring year.

The CEC CPM will respond as to the acceptability of the methodology and the monitoring schedule within 30 days of receipt of the submittal.

Filing of the subsequent three reports and all status reports will be included in the December 15 annual BRMMR (5-3.i.).

Water Quality/Water Resources

Issue Conditions 6-5 and 6-6. Modify Conditions 6-1 through 6-4 to read as follows:

6-1. DWR shall, during the period of suspension, utilize no new surface water as the source for any maintenance or other necessary activity without first notifying and obtaining the required authorization from the appropriate federal, state, county or local agencies.

Verification: 90 days prior to proposed use of surface water, DWR shall file statements with the CEC CPM, the Water Resources Control Board, the Central Valley Regional Water Quality Control Board (CVRWQCB), and all other agencies having regulating jurisdiction over such water

use, identifying the source(s), estimated amounts of use, and the method of obtaining such water.

Additionally, DWR shall provide the CEC CPM copies of all agency responses and permits necessary for surface water use requests.

6-2. DWR shall maintain on file the Spill Contingency and Containment Plan (SCCP) originally required by the CVRWQCB.

Verification: DWR shall notify the CEC CPM of the file location of the SCCP. DWR shall comply with all applicable monitoring conditions described in CVRWQCB's Waste Discharge Requirement Order No. 76-202 and any amendments thereto.

6-3. DWR shall adequately maintain the previously constructed impermeable spill collection-containment system to preclude discharges of toxic-hazardous waste and materials from the power plant pad.

Verification: DWR shall submit annually to the CVRWQCB and to the CEC CPM, via the Annual Compliance Report, a record of maintenance and corrective measures to the spill containment system.

6-4. DWR shall during the period of suspension, maintain and operate the domestic waste water septic tank, holding tank, pumps and control system as originally designed to discharge the limited amounts of effluent into the steam suppliers condensate reinjection system.

Verification: DWR shall submit annually to the CVRWQCB and to the CEC CPM via the Annual Compliance Report, a record of maintenance and operation of the domestic waste water disposal system.

6-5. DWR shall maintain quarterly records of the volume of water pumped from the on-site supply well.

Verification: DWR shall maintain on site for the CEC CPM to review upon request, supply records of water pumpage from the on-site water well.

6-6. To minimize the effects of contaminated storm water runoff discharges from the paved plant site areas to surface waters, DWR shall discharge all such waters to the condensate reinjection well(s), limited only by the capacity of the existing sump pumps or the capacity of the reinjection well(s) to accept such discharges.

Note: During high rainfall periods when the runoff from the paved plant area is discharging to the High Valley Creek watershed, the impacts of such discharges will be minimized due to the diluting effects of runoff from the remainder of the watershed.

Verification: DWR shall submit annually to the CEC CPM a record of maintenance and operation of the drainage sump pump discharge to the injection well(s).

Geotachnical/Seismic Hazards

Suspend original Conditions 7-1 through 7-3. No new Conditions issued.

Soils

Suspend original Conditions 8-1, 8-2, and 8--3. Original Condition 8-4 shall remain in effect. Condition 5-3.h. in the Biological Resources Section, addresses soil erosion issues.

Civil Engineering

Suspend original Conditions 9-1 through 9-4. Original Condition 9-5 remains in effect. No new Conditions issued.

Structural Engineering

Suspend original Conditions 10-1 through 10-6. No new Conditions issued.

Solid Waste Management

Suspend original Conditions 11-2, 11-4, and 11-6. Conditions 11-1, 11-3 and 11-5 remain in effect.

Safety

Suspend original Conditions 12-1 through 12-7. Modify original Conditions 12-8, 12-9 and add new Condition 12-10 to read as follows:

12-8. DWR shall continue to abide by an approved accident prevention program in accordance with the provisions of Section 3203 et seq. of Title 8, CCR. (These sections

include chemical handling & storage and provisions for hazardous materials and airborne contaminant exposure based on Section 5155, Title 8, CCR.)

Verification: DWR shall notify the CEC CPM of any changes to the approved accident prevention program and provide verification of California Occupational Safety and Health Administration's (Cal/OSHA) approval of said changes.

12-9. DWR shall request California Department of Occupational Safety and Health Administration (Cal/DOSHA) to conduct on-site safety inspections during the suspension of operations immediately following any complaint.

Verification: During the suspension, DWR shall notify the CEC CPM in writing in the event of a violation that could involve DOSHA action, and the necessary corrective action.

12-10. During the suspension period, DWR shall remove from the plant site, all chemicals, solvents and lubricants, except those essential to maintain the plant, and those only in reasonably required quantities.

Verification: Within 90 days of the Commission Order Approving Modified and Reduced Environmental Monitoring, DWR shall submit the following to the CEC CPM:

1) a list of all hazardous chemicals and the quantities that are to remain on site during the suspension period, and

2) the signature of the responsible Plant Manager certifying compliance with this condition.

Within 90 days of receipt of the list and the Plant Manager's verification, the CEC staff will conduct a site visit.

Noise

Suspend original Conditions 16-2 and 16-3, modify Condition 16-1 to read as follows:

16-1. DWR shall comply with Lake County's noise ordinance, which is 55 dBA Ld and 45 dBA Ln at any point beyond the property line of the source. In the event the Lake County Air Quality Management District (LCAQMD) or DWR receives public complaints of any noise, DWR and the LCAQMD (if requested by the complainant) agree to

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promptly conduct an investigation to determine the extent of the problem. DWR shall take reasonable measures to resolve the complaints.

Protocol: Within 10 days of a request by the LCAQMD or the CEC, DWR

shall conduct noise surveys at the sensitive receptors registering complaints and at the facility property line nearest the complaining receptors. Surveys shall be conducted, when possible, under circumstances similar to those when the complaints were perceived. The survey should be reported in terms of L_{eq} and L_z at levels x=10, 50, and 90.

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

Date: April 26, 1993

Energy Resources Conservation
and Development Commission

CHARLES R. IMBRECHT, Chairman

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

In the Matter of:	)	Docket No. 79-AFC-4C
	)	(P800-80-013)
	)	Order No. 97—1203—1(a)
CALIFORNIA DEPARTMENT OF	)	COMMISSION ORDER
WATER RESOURCES, BOTTLE ROCK	)	APPROVING EXTENSION OF
GEOTHERMAL POWER PLANT	)	REDUCED MONITORING DURING
	)	SUSPENDED OPERATIONS

The California Department of Water Resources (DWR) submitted to the California Energy Commission (Energy Commission) a request for a three *year* extension of Energy Commission Order 93-0426-02 (approved on April 26, 1993) which modified and reduced environmental monitoring during suspension of operations for a five *year* period. The order also stated that if DWR wished to extend the period of suspended operations, they must submit a request to the Compliance Project Manager six months prior to the end of the five year suspension period (the end of the period would be April 26, 1998).

STAFF RECOMMENDATION

Based on the findings below, staff recommend approval of the three year extension of modified and reduced monitoring during suspended operations. All provisions of Energy Commission Order 93-0426-02 will remain in effect.

- The proposed extension is consistent with the overall intent of the conditions adopted in the Bottle Rock AFC Commission Decision and with Commission Order 93-0426-02.
- There will be no new or additional significant environmental impacts associated with the proposed extension.
- The facilities will remain in compliance with all applicable laws, ordinances, regulations, and standards.

CONCLUSION AND ORDER

The California Energy Commission hereby adopts staff's recommendation and findings as its own and orders that Energy Commission Order 93-0426-02 be extended for a period of three years beginning on April 26, 1998.

Date: December 3, 1997

Energy Resources Conservation
and Development Commission

an

William J. Keese

WILLIAM J. KEESE
Chairman

EXHIBIT A
DOCUMENT 2 OF 3

79-AFC-4C
CALIF ENERGY COMMISSION
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STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 79-AFC-4C
	)	Order No. 01-0530-07
Bottle Rock Geothermal Power Project	)	
	)	
Petition for the Transfer of Ownership from the California Department of Water Resources to Bottle Rock Power Corporation	)	**COMMISSION ORDER APPROVING OWNERSHIP TRANSFER**

INTRODUCTION

On April 6, 2001, the California Department of Water Resources (DWR) submitted a Petition to transfer ownership of the Bottle Rock Geothermal Power Plant from DWR to the Bottle Rock Power Corporation. Pursuant to Title 20, California Code of Regulations, Section 1769(b), the Commission's Executive Director, relying on a review of the application by Commission Staff and other governmental agencies, has recommended that the Commission approve the Petition for transfer of ownership on the condition that DWR remain responsible for ensuring the closure and decommissioning of the facility should such actions become necessary subsequent to the transfer of ownership.

SUMMARY OF HEARING

At a regularly scheduled business meeting on May 30, 2001, the Commission received the Executive Director's recommendation, as well as a copy of the "Purchase Agreement for the Bottle Rock Power Plant and Assignment of Geothermal Lease" and copies of all pertinent Memoranda and correspondence between Commission Staff, DWR and Bottle Rock Power Corporation and its representatives and comments from the parties.

BACKGROUND

The Commission certified the 55 MW DWR Bottle Rock Geothermal Power Plant in 1980 for the purpose of providing electricity for the State Water Project. The Commission's jurisdiction over the development of the Bottle Rock facility was primarily limited to the power plant site. Development of the underlying steamfields remains under the jurisdiction of Lake County pursuant to Lake County Amended Use Permit 85-27.

Operations at the Bottle Rock facility commenced in 1985. By 1990, DWR elected to close the facility due to a lack of steam. According to DWR, the Bottle Rock facility rarely attained 40 MW. The Commission approved an amendment to the conditions of certification that modified the monitoring and reporting requirements in consideration of the plant's shutdown status in April 1993 (Energy Commission Order #93-0426-02). The Commission approved an extension for the suspension of operations in October1997, allowing DWR an additional three years to prepare a facility closure plan [Energy Commission Order #97-1203-1(a)]. DWR has not filed a closure plan with the Commission to date.

In order for the Bottle Rock facility to be restarted, a petition to restart the plant and to amend the current suspended monitoring and reporting requirements must be filed in accordance with Title 20, California Code of Regulations, Section 1769(a). A petition to restart the facility would be evaluated for possible changes to the original conditions of certification and the possible need to impose new conditions to assure compliance with all current laws, ordinances, regulations, and standards.

Commission staff is concerned that, given the facility's poor performance history, the proposed acquisition by the Bottle Rock Power Corporation could be considered a highly speculative business transaction. Additionally, the Bottle Rock Power Corporation was only recently formed and its financial capability to fund decommissioning activities is uncertain. In light of these concerns and in the interest of ensuring the continued protection of public health and safety and the environment, staff requested, by way of correspondence dated April 26, 2001, DWR to provide the following:

1. A copy of the purchase agreement between DWR and Bottle Rock Power Corporation,
2. A copy of any appraisals by or for DWR providing an estimate of costs for decommissioning activities,
3. A brief summary of the salient points of the purchase agreement addressing any financial security associated with the potential decommissioning of the facility and environmental mitigation, and
4. A description of any continued responsibilities or obligations that will be retained by DWR subsequent to the proposed transfer of ownership.

DWR responded to Commission Staff's request for further information by way of correspondence dated May 2, 2001, attached to which was, among other things, a copy of the "Purchase Agreement for the Bottle Rock Power Plant and Assignment of Geothermal Lease" (the Purchase Agreement).

Section 2.4 of the Purchase Agreement requires Bottle Rock Power Corporation to provide DWR with a five million dollar ($5,000,000) surety bond to be delivered to DWR at the closing of the transaction. Bottle Rock Power Corporation is further required to submit an independent engineering estimate of the cost to decommission the facility and for all site restoration and remediation obligations for DWR's approval every third year after closing. That section further requires that, if such engineering estimate

exceeds $5,000,000, Bottle Rock Power Corporation shall increase the security to cover the amount of the estimated cost plus twenty-five percent (25%). The amount of the security may also be reduced to the estimated cost to decommission the facility and for site restoration and remediation, plus 25%, in the event the estimated cost is less than the initial $5,000,000 security amount. The security is to remain in place until five (5) years after completion of all decommissioning.

Section 2.4 of the Purchase Agreement further authorizes DWR to inspect the premises to determine whether substantial hazardous substance contamination on the property exists on the property from the operation of the facility or any related facilities. In the event DWR finds any such contamination, DWR may require Bottle Rock Power Corporation to cease any operations causing such contamination and to clean-up and remedy all such contamination.

Section 2.4 of the Purchase Agreement authorizes Bottle Rock Power Corporation to elect to substitute a letter of credit as the security required under that section in the same amount and on the same terms and conditions as those specified relative to the surety bond.

Section 2.5 of the Purchase Agreement requires that, at or prior to closing of the transaction, Bottle Rock Power Corporation shall have purchased an Environmental Impairment Insurance policy, with limits of liability in an amount not less than ten million dollars ($10,000,000), designating DWR as co-named insureds. The insurance policy must remain in effect at all times during operation and the decommissioning of the power plant, and extends to the associated steam fields.

Finally, in its May 2, 2001 correspondence in response to Commission Staff's request for further information relative to the transaction, DWR indicated that "(t)he Department will not have any continued responsibilities or obligations subsequent to the proposed transfer unless they are imposed by law and the Buyer fails to meet its obligation to take care of them".

COMMISSION FINDINGS

The Commission hereby finds that DWR's Petition for transfer of ownership satisfies the requirements of Title 20, California Code of Regulations, Section 1769(b). Bottle Rock Power Corporation will be responsible for complying with the Commission's conditions of certification and all subsequent Energy Commission Orders. Adequate measures appear to have been taken to enable DWR to ensure the proper closure and decommissioning of the Bottle Rock Power Plant subsequent to the transfer of ownership in the event Bottle Rock Power Corporation is unable to do so. And, Ronald E. Suess, President of the Bottle Rock Power Corporation, has filed the requisite statements verifying that Bottle Rock Power Corporation understands and agrees to comply with the conditions of certification.

ORDER

Having considered staff's recommendation and comments from the parties and all submitted documents, the Commission hereby approves the transfer of ownership of the Bottle Rock Power Plant from the California Department of Water Resources to Bottle Rock Power Corporation subject to the following condition:

(a) The parties shall strictly adhere to the terms of the "Purchase Agreement for the Bottle Rock Power Plant and Assignment of Geothermal Lease".

Dated: 5/30/01

State of California
Energy Resources Conservation
And Development Commission

William J. Keese

WILLIAM J. KEESE
Chairman

EXHIBIT A
DOCUMENT 3 OF 3

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	
	)	
BOTTLE ROCK GEOTHERMAL POWER PLANT	)	**Docket No. 79-AFC-4C**
	)	
	)	**Order No.** 05-0511-03
BOTTLE ROCK POWER CORPORATION	)	**ORDER APPROVING AN EXTENSION OF THE ENVIRONMENTAL MONITORING PROGRAM DURING SUSPENDED OPERATIONS**

The Bottle Rock Power Corporation, the owner of the Bottle Rock Geothermal Power Project, filed a petition on January 18, 2005 to extend the environmental monitoring program during suspended operations for an additional 18 months from the date of approval of the petition.

STAFF RECOMMENDATION

The Energy Commission staff reviewed the petition and finds that it complies with the requirements of Title 20, Section 1769(a) of the California Code of Regulations. Staff recommends approval of the Bottle Rock Power Corporation's petition to extend the environmental monitoring program for the Bottle Rock Geothermal Power Plant to November 11, 2006, and amend related Biological Resources Conditions of Certification to reduce or eliminate some monitoring programs. Staff also recommends that the Commission approve minor revisions to Air Quality, Cultural Resources, Water Quality/Water Resources, Safety, and Noise Conditions of Certification for consistency with the Commission's current administrative format.

COMMISSION FINDINGS

Based on staff's analysis, the Commission concludes that the proposed extension of the monitoring program will not result in any significant impact to public health and safety, or the environment. The Commission finds that:

- The petition meets all the filing criteria of Title 20, section 1769(a) concerning post-certification project modifications;
- The modification would not change the findings in the Energy Commission's Final Decision pursuant to Title 20, section 1755;
- The project would remain in compliance with all applicable laws, ordinances, standards, and regulations, subject to the provisions of Public Resources Code section 25525;

- The extension of the monitoring program would be beneficial to the project owner by allowing the Bottle Rock Power Corporation additional time to remedy the impediments that have hindered its ability to obtain project financing and subsequently file a petition with the Commission to restart the power plant.

- The extension of the monitoring program is based on information that was not available to the parties prior to Energy Commission certification due to unforeseen circumstances, including a diminishing supply of steam and financial difficulties experienced by the Bottle Rock Power Corporation.

CONCLUSION AND ORDER

The California Energy Commission hereby adopts staff's recommendations and approves administrative revisions to the Decision, and the extension of the environmental monitoring program during suspended operations to November 11, 2006, and the following changes to the Bottle Rock Geothermal Power Plant Decision. New language is underlined and deleted language is shown in ~~strikeout~~:

Biological Resources

5.B - Requirements

Original Condition 5.1.a. through 5.1.h. are suspended, original Condition 5.2 remains in effect. ~~The new~~ Conditions~~,~~ 5-3.a., 5-3.e. through 5-3.h. and 5-4 are suspended. Conditions 5-3.b. through 5-3.d. and 5-3.~~i~~h. through 5-3.j., as modified and set forth below, shall remain in effect ~~substitute for the original Conditions 5.1.a. through 5.1.h. and for the requirements contained in the original Biological Resources Mitigation and Implementation Plan~~.

5-2. One year prior to power plant deactivation, ~~DWR~~ the project owner ~~will~~ shall include in the decommissioning plan a biological resources element identifying mitigation and compensation measures.

Verification: ~~DWR~~ The project owner will submit the biological resources element of the decommissioning plan to the CEC CPM ~~and the CDFG~~ for a determination in consultation with CDFG of adequacy and acceptability.

~~5-3.a. The DWR shall continue annual soil/duff monitoring and leaf tissue analysis to determine boron levels until the DWR and CEC determine that no further contamination or cumulative impacts remain.~~

~~Verification: The DWR shall submit to the CEC CPM by December 15, 1993, and of each subsequent year, an annual monitoring report which contains the results and a discussion of the year's monitoring and verifies compliance with the condition.~~

5-3.b. The ~~DWR~~ project owner ~~will~~ shall continue surface water sampling at the following 5 sites: Kelsey Creek immediately upstream of the confluence with Alder Creek; Kelsey Creek 500 feet downstream of its confluence with High Valley Creek; Alder Creek immediately upstream of its confluence with Kelsey Creek; High Valley Creek immediately upstream of its confluence with Kelsey Creek; and Kelsey Creek near Kelseyville.

Sampling shall be conducted ~~four~~ twice ~~times~~ a year, in ~~January,~~ April~~, July,~~ and October.

Protocol: Each surface water sample shall be analyzed for boron, sodium, sulfate, calcium-magnesium hardness, Ph, alkalinity, settleable solids, non-filterable residue, turbidity and specific electrical conductivity.

~~Additionally, during April, July and October, the DWR will collect and identify bottom-dwelling organisms from at least one square meter of stream-bed at each site and make special trace metal determinations for copper, iron, manganese, lead and zinc.~~

Verification: The ~~DWR~~ project owner shall ~~submit to the CEC CPM by December 15, 1993 and each subsequent year, an annual monitoring report which contains~~ include the results and a discussion of the year's monitoring in the BRMMSR~~and verifies compliance with the condition~~. (See 5-3.i. below)

5-3.c. The ~~DWR~~ project owner shall continue groundwater sampling at the following five sites: Nance Spring, Union Oil Spring, Coleman Well, Jadiker Spring and Francisco well.

Sampling shall be conducted ~~four~~ twice ~~times~~ a year, in ~~January,~~ April~~, July~~ and October.

Protocol: Each groundwater sample shall be analyzed for boron, sodium, sulfate, calcium-magnesium hardness, pH, alkalinity, non-filterable residue, specific electrical conductivity, copper, iron, manganese, lead and zinc.

Verification: The ~~DWR~~ project owner shall ~~submit to the CEC CPM by December 15, 1993 and each subsequent year, an annual monitoring report which contains~~ include the results and a discussion of the year's monitoring in the BRMMSR~~and verifies compliance with the condition~~. (See 5-3.i. below)

5-3.d. The ~~DWR~~ project owner shall replace and maintain the nest boxes as originally prescribed, and maintain wildlife water basins in working condition. Wildlife use of these habitat improvement projects will be monitored ~~annually~~ biennially using the same methodology that has been used in the past and thoroughly described in the BRMMSP. (See 5-3.i. below)

Verification: The ~~DWR~~ project owner shall ~~submit to the CEC CPM by December 15, 1993 and each subsequent year, an annual monitoring report which contains~~ include the results and a discussion of the ~~year's~~ biennial monitoring in the BRMMSR~~and verifies compliance with the condition~~. (See 5-3.i. below)

~~5-3.e. Deer pellet group counts shall be sampled by the DWR every 6 months, using the same methodology as in past sampling. (See 5-3.i. below)~~

~~Verification: The DWR shall submit to the CEC CPM by December 15, 1993, and each subsequent year, a report which contains the results and a discussion of the monitoring and verifies compliance with the condition.~~

~~5-3.f. Vegetation (quantity and species composition) monitoring shall be continued by the DWR on the two 25 acre study plots twice in the next ten years.~~

~~Protocol: Once during the first five year interval and once during the second five year interval. The same methodology will be used as in the past for monitoring of these plots. (See 5-3.i. below)~~

~~Verification: The DWR shall submit a report to the CEC CPM by December 15th of the year of the monitoring action, which contains the results and a discussion of the monitoring and verifies compliance with the condition.~~

~~5-3.g. Bird monitoring in the black oak and chaparral study areas shall be conducted three times in the next 10 years by the DWR. This monitoring will use the same methodology (See 5-3.i. below) as past monitoring of these study areas. Monitoring will be spread over the ten year period.~~

~~Verification: The DWR shall submit to the CEC CPM by December 15th of the year of the monitoring action, a report which contains the results and a discussion of the monitoring and verifies compliance with the condition.~~

5-3.h. ~~DWR~~The project owner shall monitor erosion on an on-going basis during the rainy season. Inspections shall include all cut and fill slopes and other disturbed areas. Erosion problems shall be immediately repaired.

If temporary repairs are necessary during the rainy season, ~~DWR~~ the project owner shall complete permanent repairs to those erosion problems by October 10th of each year.

Verification: The ~~DWR~~ project owner shall submit to the CEC CPM by August 15th of each year an annual report which includes results of erosion monitoring when erosion problems are discovered. This report will describe the problems discussed and action taken to correct the problems.

During years when no erosion problems occur, and no corrective action is

required, a brief discussion may be included and submitted in the December 15th annual report. (See 5-3.i. below)

5-3.i. A Biological Resources Mitigation and Monitoring ~~and Mitigation~~ Status Report (BRMMSR) shall be prepared to provide the results of the previous year's monitoring. This report will be submitted by December 15th each year. The ~~1993~~ report will collate and summarize all monitoring results including methodologies used to satisfy conditions 5-3.~~a~~.b. through 5-3.~~h~~d. The project owner shall include in the BRMMSR appropriate maps of suitable scale with a detailed discussion of the current status of all mitigation and monitoring actions.

Verification: The ~~DWR~~ project owner shall submit to the CEC CPM by December 15, ~~1993, and~~ of each ~~subsequent~~ year, an annual BRMMSR which verifies compliance with the Biological Resource Conditions of Certification.

Upon reasonable notice the CEC CPM, Lake County staff, the Regional Water Quality Control Board staff, and the California Department of Fish and Game (CDFG) staff, shall be granted access for inspections.

5-3.j. If any specific mitigation measure or monitoring program is determined to be ineffective, or if the CEC CPM ~~staff~~ receives any submittal, complaints, or other information from the ~~DWR~~ project owner, other agencies, or the public, that indicates one or more significant impacts are occurring on the leasehold subject to CEC jurisdiction, ~~DWR~~ the project owner and the CEC ~~staff~~ CPM shall meet to determine what further measures shall be taken to correct or reverse these impacts.

Verification: The ~~DWR~~ project owner in consultation with CEC CPM will take action to correct the problem. If the problem cannot be resolved ~~by staff~~, the compliance monitoring dispute resolution process will be utilized.

~~5-4. Monitoring of wildlife use of the revegetated cut and fill slopes shall be initiated and conducted by the DWR three times, spread throughout the next 10 years. This effort will include: birds; deer; reptiles; small mammals; and rabbits/hares. DWR shall develop a methodology and a proposed schedule for these monitoring studies.~~

~~Verification: DWR shall submit the methodology and a proposed schedule for these monitoring studies to the CEC CPM for acceptability, 60 days prior to the start of monitoring during the first monitoring year.~~

~~The CEC CPM will respond as to the acceptability of the methodology and the monitoring schedule within 30 days of receipt of the submittal.~~

~~Filing of the subsequent three reports and all status reports will be included in the December 15 annual BRMMR (5-3.i.).~~

Air Quality

Suspend original Conditions 1-1 through 1-6. Issue Conditions 1-7 and 1-8.

1-7. ~~DWR~~ Project owner shall participate in Geysers' Air Monitoring Program (GAMP) III for the life of the program.

Verification: ~~DWR~~ Project owner shall submit in the Annual Compliance Report a statement describing ~~DWR's~~ project owner's participation in GAMP.

1-8. During the suspension period, ~~DWR~~ Project owner shall maintain all existing Authorities to Construct (ATCs) and Permits to Operate (PTOs) required under Lake County Air Quality Management District (LCAQMD) regulations.

Verification: ~~DWR~~ Project owner shall submit in the Annual Compliance Report to the CEC CPM appropriate confirmation from the LCAQMD that all ATCs and PTOs are current and active under the terms and Conditions of LCAQMD Rules and Regulations.

~~DWR~~ Project owner shall also include in this report a statement regarding any complaints and actions of resolution for air quality for the ~~DWR~~ Bottle Rock facility.

For the duration of the suspension and any time when the plant is operating, ~~DWR~~ project owner shall submit an Annual Compliance Report for each calendar year no later than February 15th, of the year following the reporting year.

Public Health

Suspend original Conditions 2-1 through 2-9. No new Conditions issued.

Socioeconomic/Aesthetics

Suspend original Condition 3-1. Original Condition 3-2 shall remain in effect.

Cultural Resources

Suspend original Conditions 4-1 through 4-4. Modify Condition 4-5 to read as follows:

4-5. ~~DWR~~ Project owner shall ensure that the existing fence on the north side of site CA-LAK-609 is maintained.

Verification: A statement verifying compliance shall be provided in each Annual Compliance Report filed with the CEC CPM.

Water Quality/Water Resources

Issue Conditions 6-5 and 6-6. Modify Conditions 6-1 through 6-4 to read as follows:

6-1. ~~DWR~~ Project owner shall, during the period of suspension, utilize no new surface water as the source for any maintenance or other necessary activity without first notifying and obtaining the required authorization from the appropriate federal, state, county or local agencies.

Verification: 90 days prior to proposed use of surface water, ~~DWR~~ the project owner shall file statements with the CEC CPM, the Water Resources Control Board, the Central Valley Regional Water Quality Control Board (CVRWQCB), and all other agencies having regulating jurisdiction over such water use, identifying the source(s), estimated amounts of use, and the method of obtaining such water.

Additionally, ~~DWR~~ the project owner shall provide the CEC CPM copies of all agency responses and permits necessary for surface water use requests.

6-2. ~~DWR~~ Project owner shall maintain on file the Spill Contingency and Containment Plan (SCCP) originally required by the CVRWQCB.

Verification: ~~DWR~~ Project owner shall notify the CEC CPM of the file location of the SCCP. ~~DWR~~ Project owner shall comply with all applicable monitoring conditions described in CVRWQCB's Waste Discharge Requirement Order No. 76-202 and any amendments thereto.

6-3. ~~DWR~~ Project owner shall adequately maintain the previously constructed impermeable spill collection-containment system to preclude discharges of toxic-hazardous waste and materials from the power plant pad.

Verification: ~~DWR~~ Project owner shall submit annually to the CVRWQCB and to the CEC CPM, via the Annual Compliance Report, a record of maintenance and corrective measures to the spill containment system.

6-4. ~~DWR~~ Project owner shall during the period of suspension, maintain and operate the domestic waste water septic tank, holding tank, pumps and control system as originally designed to discharge the limited amounts of effluent into the steam suppliers condensate reinjection system.

Verification: ~~DWR~~ Project owner shall submit annually to the CVRWQCB and to the CEC CPM via the Annual Compliance Report, a record of maintenance and operation of the domestic waste water disposal system.

6-5. ~~DWR~~ Project owner shall maintain quarterly records of the volume of water pumped from the on-site supply well.

Verification: ~~DWR~~ Project owner shall maintain on site for the CEC CPM to review upon request, supply records of water pumpage from the on-site water well.

6-6. To minimize the effects of contaminated storm water runoff discharges from the paved plant site areas to surface waters, ~~DWR~~ project owner shall discharge all such waters to the condensate reinjection well(s), limited only by the capacity of the existing sump pumps or the capacity of the reinjection well(s) to accept such discharges.

Note: During high rainfall periods when the runoff from the paved plant area is discharging to the High Valley Creek watershed, the impacts of such discharges will be minimized due to the diluting effects of runoff from the remainder of the watershed.

Verification: ~~DWR~~ Project owner shall submit annually to the CEC CPM a record of maintenance and operation of the drainage sump pump discharge to the injection well(s).

Geotechnical/Seismic Hazards

Suspend original Conditions 7-1 through 7-3. No new Conditions issued.

Soils

Suspend original Conditions 8-1, 8-2, and 8--3. Original Condition 8-4 shall remain in effect. Condition 5-3.h. in the Biological Resources Section, addresses soil erosion issues.

Civil Engineering

Suspend original Conditions 9-1 through 9-4. Original Condition 9-5 remains in effect. No new Conditions issued.

Structural Engineering

Suspend original Conditions 10-1 through 10-6. No new Conditions issued.

Solid Waste Management

Suspend original Conditions 11-2, 11-4, and 11-6. Conditions 11-1, 11-3 and 11-5 remain in effect.

Safety

Suspend original Conditions 12-1 through 12-7. Modify original Conditions 12-8, 12-9 and add new Condition 12-10 to read as follows:

12-8. ~~DWR~~ Project owner shall continue to abide by an approved accident prevention program in accordance with the provisions of Section 3203 et seq. of Title 8, CCR. (These sections include chemical handling & storage and provisions for hazardous materials and airborne contaminant exposure based on Section 5155, Title 8, CCR.)

Verification: ~~DWR~~ Project owner shall notify the CEC CPM of any changes to the approved accident prevention program and provide verification of California Occupational Safety and Health Administration's (Cal/OSHA) approval of said changes.

12-9. ~~DWR~~ Project owner shall request California Department of Occupational Safety and Health Administration (Cal/DOSHA) to conduct on-site safety inspections during the suspension of operations immediately following any complaint.

Verification: During the suspension, DWR shall notify the CEC CPM in writing in the event of a violation that could involve DOSHA action, and the necessary corrective action.

12-10. During the suspension period, ~~DWR~~ project owner shall remove from the plant site, all chemicals, solvents and lubricants, except those essential to maintain the plant, and those only in reasonably required quantities.

Verification: Within 90 days of the Commission Order Approving Modified and Reduced Environmental Monitoring, ~~DWR~~ project owner shall submit the following to the CEC CPM:

(1) a list of all hazardous chemicals and the quantities that are to remain on site during the suspension period, and

(2) the signature of the responsible Plant Manager certifying compliance with this condition.

Within 90 days of receipt of the list and the Plant Manager's verification, the CEC ~~staff~~ CPM will conduct a site visit.

Noise

Suspend original Conditions 16-2 and 16-3, modify Condition 16-1 to read as follows:

16-1. ~~DWR~~ Project owner shall comply with Lake County's noise ordinance, which is 55 dBA Ld and 45 dBA Ln at any point beyond the property line of the source. In the event the Lake County Air Quality Management District (LCAQMD) or ~~DWR~~ the project owner receives public complaints of any noise, ~~DWR~~ project owner and the LCAQMD (if requested by the complainant) agree to promptly conduct an investigation to determine the extent of the problem. ~~DWR~~ Project owner shall take reasonable measures to resolve the complaints.

Protocol: Within 10 days of a request by the LCAQMD or the CEC CPM, ~~DWR~~ project owner shall conduct noise surveys at the sensitive receptors registering complaints and at the facility property line nearest the complaining receptors. Surveys shall be conducted, when possible, under circumstances similar to those when the complaints were perceived. The survey should be reported in terms of L_{eq} and L_z at levels x=10, 50, and 90.

Verification: ~~DWR~~ Project owner shall promptly forward to the LCAQMD the survey results, the mitigation measures applied to resolve the problem and the results of these efforts. LCAQMD shall advise the CEC CPM of any continuing noncompliance conditions.

IT IS SO ORDERED.

Date: May 11, 2005

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

_____

JOSEPH DESMOND
Chairman

EXHIBIT B

EXHIBIT B

LIST OF PLANT DESIGN, EQUIPMENT OR OPERATIONAL CHANGES

Planned Changes to Steam Plant

The following constitutes the planned changes to the design or operation of BRPP. These changes are explained and analyzed in the Petition to Amend the Final Decision.

1. Installing vacuum pumps to maintain vacuum in condenser versus reliance upon steam injectors;
2. Installing a distributive control system for plant;
3. Adding a new skim line in Stretford H_2S abatement system ;
4. Adding mercury vapor filter upstream of Stretford H_2S abatement system;
5. Adding air spargers to the oxidizer tanks in the Stretford H2S abatement system;
6. Changing the operation and design of the secondary H_2S abatement system;
7. Adding a second main steam line isolation valve;
8. Installing variable speed, automating steam stacking system;
9. Installing new design in steam washing system;
10. Adding steam sampling point downstream of Burgess Manning main steam separator; and,
11. Installing exterior lighting abatement improvements.

EXHIBIT C

PETITION TO AMEND FINAL DECISION TO RE-FIRE PLANT
BOTTLE ROCK POWER PLANT
79-AFC-4

EXHIBIT C

CONDITIONS OF CERTIFICATION CHART

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
SECTION 1 - AIR QUALITY *CONDITIONS 1-1 THROUGH 1-6 SUSPENDED AND 1-7 AND 1-8 ADDED PURSUANT TO ORDER 93-0426-02.*			
AIR 1-1	Lake County Air Pollution Control District ("LCAPCD") shall perform all duties and functions normally conducted by the APCD and have authority to issue PTO, collect fees, levy fines, etc.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
AIR 1-2	Comply with requirements specified in LCAPCD "Modified Determination of Compliance" dated February 22, 1982.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Language change to reflect new ATC when issued. See Conditions DOC-1 through DOC-23 below.*
DOC-1	Condition 1- H_2S emissions shall be limited to 5 pounds power hour during plant generation and all possible generation outages.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-2	Condition 2 – Atmospheric emissions control system ("AECS"), excluding the EIC system, shall be utilized using best available control technology. Major components consist of: a) A surface condenser to facilitate the partitioning of H_2S into the noncondensible	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*

[1] Effect on COC/Effect of Change will be noted one of five ways:
1. No change (effect of change is N/A);
2. Activate (no effect, original condition remains the same);
3. Activate/Modify (condition must be activated, but modified to reflect current project. the effect of change is noted as no effect, minimal effect, or significant effect);
4. Modify (effect of change is noted as no effect, minimal effect, or significant effect); or,
5. Delete (condition deals solely with suspension of operations).

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
	gas phase. b) A Stretford unit to reduce H_2S concentration in the noncondensible gases to 10 ppmv or less. c) Secondary condensate treatment which includes sufficient hydrogen peroxide (H2O2) and catalyst injection and reaction time to ensure the power plant will comply with the emission limitations specified in Condition 1. d) A turbine bypass system sufficiently sized to accept 100% of full steam flow during generating outages so that the power plant emission control system can be utilized to treat steam normally stacked during the outage. e) The air emissions control system specified above shall be properly winterized. f) If a solids removal system is necessary as a result of solids formation in the condensate, the facility shall be incorporated into the system. g) In the event of Bottle Rock generation loss, an alternate source of power to enable the continued use of the air emissions control system shall be available. h) A stand by generator capable of sustaining station power and MCR's Emergency Stacking System shall be available and fueled with low sulfur fuel of 0.5% or less for use in case of concurrent transmission line and generator failure.		
DOC-3	Condition 3 – The major components of the air emissions control system, Stretford, Turbine bypass, and condensate abatement shall incorporate a design to enable a 99% availability excluding scheduled maintenance on these individual major components. If the design criteria cannot be established, abatement systems shall be retrofitted as necessary to achieve performance at this level.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-4	Condition 4 – Upon failure of H_2S abatement equipment, DWR shall curtail to a level necessary to comply with the 5 lbs/hr H_2S emissions limitation or provide for a mechanism allowing an immediate	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
	determination of prevailing atmospheric conditions to enable to LCAPCD to make a decision as to whether it is acceptable to continue operation at a higher emissions level.		*changes in the Final Decision.*
DOC-5	Condition 5 – The cooling tower shall have a guaranteed drift rate of no more than .00002.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-6	Condition 6 – The off-gas vent to the atmosphere shall be used only during legitimate emergencies and to enable the cold start-up of the power plant turbine. Steam flows shall not exceed 25,000 lbs/hr to the power plant during direct venting of untreated noncondensible gases in the steam. The turbine bypass shall be used to avoid direct venting into the atmosphere of undiluted noncondensibles. The LCAPCD shall be notified when cold start-ups in excess of 5 lbs/hr H_2S are to occur and may cancel such activity if deemed necessary.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-7	Condition 7 – DWR shall install alarms and switches on the following units to ensure immediate corrective action is initiated to prevent outages and potential stacking. Alarm/trip conditions noted with an asterisk have separate alert and trip alarm functions, and those alarm/trip conditions without an asterisk are coincident alarm/trip functions. *See list at pp. 12-13 of 1983 Compliance Report	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-8	Condition 8 – The LCAPCD shall be notified within 1 hour following any power plant outage or malfunction resulting in emissions in excess of 5 lbs/hr. H_2S at the [current] number. Maintain log of plant outages with explanations for outages and malfunctions. If outages recur because of equipment malfunctions no indicated by alarms, owner shall retrofit alarms on the malfunctioning equipment. Log shall be available for inspection upon request of staff of LCAPCD, ARB, CEC, and EPA.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-9	Condition 9 – Plant abatement system shall have an operator on site at all times. Operator must be able to immediately take necessary corrective action in the event of	**SUSPENDED** **Activate and**	*Minimal effect: Any changes to ATC Conditions will require*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
	power plant outage or equipment malfunction in order to meet conditions of DOC. Owner shall provide phone number at which plant operator or representative can be reached to ensure LCAPCD entry for inspection purposes within 1 hour of notification. If owner cannot comply with a specific request, owner shall forward in writing within one week a letter explaining the reasons entry within 1 hour could not be allowed the LCAPCD staff.	**Modify**	*changes to corresponding changes in the Final Decision.*
DOC-10	Condition 10 – Owner's approved-for-construction drawings or other drawings acceptable to the LCAPCD of the Stretford unit, turbine bypass, and secondary abatement (condensate treatment) system shall be submitted to the LCAPCD and CEC for comment and review at the earliest possible date and in time for such drawings to be commented upon and modified if necessary. Owner shall not be required to submit proprietary information unless specifically requested by the LCAPCD pursuant to California Administrative Code.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-11	Condition 11 – Owner shall submit to LCAPCD, ARB, and CEC results of pilot test program performed by Bechtel National, Inc., no later than Feb. 1, 1983, or within 1 month before finishing final design of hydrogen peroxide/ catalyst abatement system.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-12	Condition 12 – Although applicant is to be licensed upon use of BACT as described in Condition 2, owner may use other means to comply provided LCAPCD, ARB, and CEC are provided performance data indicating the other means are capable of achieving the same emissions limitations and reliability as those defined in Condition 2. Any changes shall be decided at a properly noticed public hearing to be convened jointly by the LCAPCD and CEC no later than 2 years prior to anticipated plant operation at which the ARB and all intervenors shall be invited to participate. LCAPCD concurrence upon any changes must be given.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
DOC-13	Condition 13 – The access road from Bottle Rock Road to the plant shall be paved to ensure generation of fugitive particulate matter is minimized.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-14	Condition 14 – Within 60 days after initial power production, owner shall demonstrate that the applicable emissions limitations are being maintained during normal plant operations. Owner shall submit detailed performance test plan to LCAPCD at least 30 days prior to tests. Plans shall also be designed to determine the particulate emissions rate and components of particulate emitted. Owner's proposed test plan must receive LCAPCD and CEC staff approval before tests may be conducted to determine compliance. Safe sampling access and ports to enable LCAPCD to gather samples from the freshly treated condensate, cooling tower stack, and treated gas from the Stretford system shall be provided.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-15	Condition 15 – Reports shall be issued quarterly to the LCAPCD detailing (a) hours of operation; (b) any periods for which abatement equipment malfunctioned and the action taken; (c) chemicals utilized for treatment of condensate; (d) periods of scheduled and unscheduled outages and the reasons for such outages, and (e) summary of the output of continuous emissions monitors with explanations of any irregularities.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-16	Condition 16 – Within 90 days after commercial operation, owner shall file with LCAPCD an application for a PTO together with all appropriate information to ensure compliance with the certification and submit permit fees.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-17	Condition 17 – Owner shall take all reasonable measure to comply with a future air emittent or ambient standard or guideline adopted for present non-criteria pollutants (i.e., mercury, boron, arsenic, radon-222, etc.) by responsible state of federal agencies and/or comply with guidelines established as part of this certification.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
DOC-18	Condition 18 – Owner shall promptly fund reasonable studies or tests as required by the LCAPCD to ascertain the impact of Bottle Rock when operating, specifically at the residence located 1,900 feet east of the Francisco pad should resident in good faith file complaints with the LCAPCD indicating the air quality is worsening or becoming a nuisance or unhealthful as a result of operation. These studies shall include, but not be limited to, monitoring at the residence to determine H_2S levels and particulate or other components which are believed or known to be in geothermal steam, tracer tests or source tests. Studies shall be approved by the LCAPCD prior to initiation. Reasonable mitigation steps shall be applied upon request of the LCAPCD to attempt to remedy any unlawful impacts caused by the plant upon the resident.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-19	Condition 19 – Incoming steam to the plant shall be analyzed quarterly and reported to the CEC and LCAPCD for radon-222 and its daughters mercury, arsenic, silica, boron, benzene, ammonia, and total suspended solids for the first 2 years of operation. Results of these tests shall be reviewed by the LCAPCD to determine if annual testing will suffice. Owner may join with steam supplier in performing tests. Results of any tests performed upon cooling tower sludge shall also be forwarded to LCAPCD.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-20	Condition 20 – H_2S emissions shall be monitored continuously by measuring total volume/flow rates and H_2S concentrations at the following locations: (a) incoming steam; (b) outlet of the Stretford unit; and (c) in the treated condensate. A log of such monitoring shall be maintained and made available to LCAPCD staff upon request. The devices must have accuracies of $\pm$ 1ppm, provide measurements at least every 15 minutes, and be accessible to LCAPCD staff. Flow rate measuring devices must have accuracies of $\pm$ 5% at 40-100% of total flow rate, and calibrations must be performed at least quarterly. Calibrations must be made available to LCAPCD staff upon request. Monitoring shall be required	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
	pursuant to Section 42303 of the California Health & Safety Code. In the event that acceptable continuous monitors are not available, owner shall conduct testing no less than once every 30 days to ensure efficiencies of H_2S systems. Testing procedure used to determine compliance must be approved by the LCAPCD. A log of testing shall be maintained and made available to LCAPCD staff upon request. Applicant shall on annual basis after date of decision, submit for approval by LCAPCD, CEC and ARB a summary of efforts to develop, research, let for contract to research, or let for contract to implement use of equipment likely to be a candidate for continuous condensate and noncondensible gas monitor for hydrogen sulfide. In either case, a summary of the monitoring and/or testing shall be forwarded to the LCAPCD every 3 months.		
DOC-21	Condition 21 – Owner shall at request of APCO, install, operate, and maintain an on-site meteorological station capable of determining wind direction, wind speed, standard deviation of the direction, and temperature. Such data shall be furnished to the LCAPCD on a monthly basis in an hourly/daily format and quarterly in a summary format acceptable to the APCO.	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*
DOC-22	Condition 22 – Compliance monitoring shall be conducted for a minimum of 1 year before initial operation and 1 year after initial operation. Constituents to be monitored include arsenic, boron, mercury, radon-222, benzene, silica, and particulates in addition to H_2S. Constituents shall be measured both as suspended aerosols and fall-out. Monthly composite samples of fall-out shall be collected using a wet/dry collector. Constituents other than H_2S may be measured every 6th day per the ARB particulate sampling schedule. Owner, CEC, and LCAPCD shall agree upon methods use in sampling and analysis. At end of indicated period, monitoring program will be reviewed by the APCO and feasibility and necessity for continuance determined. The site for such monitoring shall be in the Cobb Valley area unless owner and LCAPCD agree upon mutually	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
	acceptable alternative site.		
DOC-23	Condition 23 – (a) Regarding Secondary Abatement: Owner shall incorporate into plant construction, ability to control pH of treated condensate, provide for oxidation of H_2S utilizing H_2O_2, ensure a residence time of 75 or more seconds, and incorporate the ability to add on a catalyst injection capability to the secondary system should operating experience show such is necessary. Chemical storage capacity shall be as specified in AFC amendments and no less than one week's supply shall remain on-site at all times. Alternatively, owner can provide information acceptable to LCAPCD and ARB establishing pH adjustment control not necessary at plant or provide temporary facilities for injection of NaOH during plant start ups until question of pH control can be resolved. Required Future Reports & Documents: Owner shall forward Bechtel H_2S oxidation study final report immediately upon finalization. No less than 2 months prior to initiating construction of condensate abatement system, a detailed design shall be submitted in writing to LCAPCD to enable LCAPCD to establish compliance requirements. b) Regarding the Turbine Bypass to Power Plant Main Condenser System: Owner shall incorporate reliable and proven valves, noise attenuation of the valving, and desuperheating of bypassed steam or account for in the design of the system, the ability to successfully bypass 100% of the steam load. Required Future Reports & Documents: Owner shall submit the LCAPCD within 60 days of CEC approval of modified AECS, a report detailing at a minimum 1) The selection of turbine bypass valves, the operating experience with the selected valves, and the specific reason the valve design was chosen. To extent possible, report shall address material presented in Gibbs & Hill report; 2) Design features incorporated and/or operating experience to	**SUSPENDED** **Activate and Modify**	*Minimal effect: Any changes to ATC Conditions will require changes to corresponding changes in the Final Decision.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
	ensure absence of desuperheating ability will not adversely affect operation of turbine bypass or plant emissions control system. Owner shall within 60 days prior to installation of bypass system, provide detailed engineering drawings and description in writing of operation procedure for turbine bypass to plant condenser system. Design shall incorporate ability to bypass during start-up and partial curtailment as well as total turbine failure. Owner, prior to operation of plant, shall enter into agreement with steam supplier detailing responsibilities for operations of turbine bypass and emergency stacking abatement systems. The interface between stacking system controls shall be delineated by steam supplier and owner and approved by LCAPCD. Copy of agreement shall be filed with LCAPCD no less than 60 days prior to initial plant operation.		
AIR 1-3	Owner shall obtain written approval from LCAPCD and CEC before using any equipment other than Hydrogen Peroxide Stretford/ surface condenser system and turbine bypass system as specified in Modified DOC (Conditions 2 and 12).	**SUSPENDED** **Activate and Modify**	*Minimal effect: Change will be to significantly reduce or eliminate use of H_2O_2 and commence use of iron chelate.*
AIR 1-4	Owner shall submit approved-for-construction drawings of plant secondary H_2S control system to CEC only if requested by CEC.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
AIR 1-5	DOC Conditions 14 and 20 require submittal of detailed test plan for performance testing of H_2S emissions abatement systems. Owner shall ensure plan includes test parameters: 1) test date shall reflect minimum of 80% gross electricity generating capacity and 2) in the event that at least 30 days of qualifying date could not be obtained during the 90-day test period, owner shall continue to collect test date until required info is obtained. Application for PTO shall be filed as specified in DOC Condition 16.	**SUSPENDED** **Activate and Modify**	*Minimal effect.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
AIR 1-6	Owner shall operate and maintain on-site meteorological station capable of determining wind speed, direction and temperature (see DOC Condition 21 above).	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
AIR 1-7	Owner shall participate in Geysers' Air Monitoring Program ("GAMP") for the life of the program.	**ACTIVE** **No Change**	N/A
AIR 1-8	During suspension period, owner shall maintain all exiting ATCs and PTOs required under LCAQMD regulations. Note: Amended Condition notes change from LCAPCD to LCAQMD.	**ACTIVE** **DELETE**	*Condition is solely for suspension of operations.*
SECTION 2 - PUBLIC HEALTH ***CONDITIONS 2-1 THROUGH 2-9 SUSPENDED PURSUANT TO ORDER 93-0426-02.***			
PUB-2-1	Owner shall conduct quarterly sampling and analysis for radon-222 concentrations in noncondensible gases entering the plant. Outline of current CA Dept of Health Svcs Radiologic Health Section minimal requirements for monitoring and reporting on radon-222 follows in list. See 1983 Compliance Report.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
PUB-2-2	If radon-222 concentration exceeds 3.0 picocuries per liter (pCi/l) in cooling tower exhaust, owner must inform CDHS/RHS and CEC staff with special report.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
PUB 2-3	If radon-222 concentrations exceed 6.0 pCi/l in cooling tower exhaust, owner shall notify CDHS/RHS and CEC upon confirmation of sample result.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
PUB-2-4	Owner shall obtain baseline of ambient air measurements for benzene, silica, mercury, arsenic, ammonia and vanadium in accordance with requirements set forth in 1983 Compliance Report.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
PUB 2-5	Owner and CEC Staff in consultation with CARB and CDHS will agree upon significant levels of regulated and non-regulated pollutants applicable in the operational monitoring program.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
PUB 2-6	First 2 years of operation, owner shall analyze the incoming steam to plant for mercury arsenic, silica, boron, benzene, and ammonia. Monitoring shall occur every quarter.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
PUB 2-7	In second year of commercial operation, owner shall perform mass balance measurement for mercury and arsenic.	**SUSPENDED** **Activate and Modify**	*No effect.*
PUB 2-8	New well steam analysis will be performed by owner when new steam supply wells are added to guarantee plant emissions do not change significantly ±20%. Methodology for analysis will be same as set forth in PUB 2-6.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
PUB 2-9	Owner shall conduct ambient air monitoring for arsenic, boron, mercury, benzene, and silica for 1 year after initial operation as outlined in the DOC (Condition 22). At end of period, LCAPCD will review monitoring programs and determine feasibility and necessity for continuing program.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SECTION 3 - SOCIOECONOMICS/AESTHETICS			
CONDITIONS 3-1 SUSPENDED PURSUANT TO ORDER 93-0426-02; 3-2 REMAINS IN EFFECT.			
SOC 3-1	Owner shall prepare detailed visual impacts mitigation plan. Plan shall discuss specific steps to undertake to carry out mitigation measures identified in Draft EIR (p. 142).	**SUSPENDED** **No Change**	*N/A*
SOC 3-2	Owner shall not begin construction activities without approval of CEC visual impacts mitigation plan.	**ACTIVE** **No Change**	*N/A*
SECTION 4 – CULTURAL RESOURCES			
CONDITIONS 4-1 THROUGH 4-4 SUSPENDED AND 4-5 MODIFIED PURSUANT TO ORDER 93-0426-02.			
CUL 4-1	Owner shall develop and implement systematic archaeological recovery program at site CA-LAK-610 in consultation with CEC staff prior to any construction activity.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
CUL 4-2	Owner shall arrange for presence of qualified archaeologist to advise DWR's Construction Department of significance of any cultural resource discovered during stripping of any vegetation and top soil from plant site and related facilities.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
CUL 4-3	If previously unidentified cultural resource sites are discovered or unearthed during construction, work in immediate area will be halted until archaeologist evaluates significance of resource.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
CUL 4-4	Owner shall ensure construction personnel are instructed to avoid all contact with flagged or fenced sites and avoid disturbance of any other historic material.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
CUL 4-5	Owner shall ensure existing fence on north side of CA-LAK-609 is maintained.	**ACTIVE** **No Change.**	*N/A*
SECTION 5 - BIOLOGICAL RESOURCES ***CONDITIONS 5-1.a THROUGH 5-1.h ARE SUSPENDED, 5-2 REMAINS IN EFFECT; 5-3.a, 5-3.e THROUGH 5-3.h AND 5-4 SUSPENDED; 5-3.b THROUGH 5-3.d AND 5-3H THROUGH 5-3.j REMAIN IN EFFECT, PURSUANT TO ORDER 05-0511-03.***			
BIO 5-1.a	Identify and mark *Lomatium repostum* population.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-1.b	Mitigation Plan	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-1.c	Erosion Controls	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-1.d	Stream Monitoring	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-1.e	Erosion Control Measures Plan for construction activities proposed for December through March.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-1.f	Inspect cut and fill slopes for impacts.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
BIO 5-1.g	Conduct visual observations and infrared aerial photography prior to plant operation	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-1.h	Complaints re impacts to leasehold shall be investigated by CEC staff.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-2	One year prior to plant deactivation, owner shall include bio resource mitigation and compensation measures in decom plan.	**ACTIVE** **No Change**	*N/A*
BIO 5-3.a	Continue annual soil/duff monitoring and leaf tissue analysis. Annual monitoring report due December 15.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-3.b	Continue surface water sampling at 5 sites: Kelsey Creek (immediately upstream of confluence with Alder Creek); Kelsey Creek (500 feet downstream of confluence with High Valley Creek); Alder Creek (immediately upstream of confluence with Kelsey Creek); High Valley Creek (immediately upstream of confluence with Kelsey Creek); Kelsey Creek near Kelseyville. Sampling shall occur each year in April & October; results due in Annual Biological Resources Monitoring & Mitigation Status Report ("BRMMSR"), due each December 15.	**ACTIVE** **No Change**	*N/A*
BIO 5-3.c	Continue groundwater sampling at Nance Spring, Union Oil Spring, Coleman Well, Jadiker Spring, and Francisco Well. Sampling shall occur each year in April & October; results due in BRMMSR, due each December 15.	**ACTIVE** **No Change**	*N/A*
BIO 5-3.d	Maintain nest boxes and wildlife water basins in working condition. Biennial results due in BRMMSR, due December 15.	**ACTIVE** **No Change**	*N/A*
BIO 5-3.e	Deer pellet group counts shall be sampled by owner every 6 months. Results due in BRMMSR, due each December 15.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
BIO 5-3.f	Vegetation monitoring shall be continued by owner on two 25-acre study plots twice in next 10 years. Results due in BRMMSR, due each December 15.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-3.g	Bird monitoring in black oak and chaparral study areas shall be conducted 3 times in next 10 years. Results due in BRMMSR, due each December 15.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
BIO 5-3.h	Monitor erosion on on-going basis during rainy season. Report by August 15 if erosion issues; include in BRMMSR, due each December 15 if no issues.	**ACTIVE** **No Change**	*N/A*
BIO 5-3.i	Bio Monitoring and Mitigation Report shall be prepared with results from previous year's monitoring and submitted by December 15 each year.	**ACTIVE** **No Change**	*N/A*
BIO 5-3.j	If specific mitigation measure or monitoring program is determined ineffective or CEC receives complaints, owner and CEC staff shall meet to determine corrective measures.	**ACTIVE** **No Change**	*N/A*
BIO 5-4	Monitoring of wildlife use of revegetated cut and fill slopes shall be initiated and conducted by owner 3 times throughout ten years. All status reports due in BRMMSR, due each December 15.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SECTION 6 – WATER QUALITY / WATER RESOURCES ***CONDITIONS 6-1 THROUGH 6-6 MODIFIED/ADDED BY MAY 11, 2005 ORDER 05-0511-03; ALL REMAIN ACTIVE.***			
WR 6-1	Owner shall, during suspension, utilize no new surface water as source for any maintenance or other necessary activity without notifying appropriate agencies.	**ACTIVE** **No Change**	*N/A*
WR 6-2	Owner shall maintain on file, Spill Contingency and Containment Plan originally required by CVRWQCB.	**ACTIVE** **No Change**	*N/A*
WR 6-3	Owner shall maintain previously constructed impermeable spill collection-containment system.	**ACTIVE** **No Change**	*N/A*
WR 6-4	Owner shall, during suspension, maintain and operate domestic and waste water septic tank, holding tank, pumps and control system as originally designed to discharge effluent.	**ACTIVE** **No Change**	*N/A*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
WR 6-5	Owner shall maintain quarterly records of volume of water pumped from on-site well.	**ACTIVE** **No Change**	*N/A*
WR 6-6	To minimize effects of contaminated water runoff discharges, owner shall discharge such waters to condensate reinjection wells limited only by capacity of existing sump pumps.	**ACTIVE** **No Change**	*N/A*
SECTION 7 – GEOTECHNICAL/ SEISMIC HAZARDS ***CONDITIONS 7-1 THROUGH 7-3 SUSPENDED PURSUANT TO ORDER 93-0426-02.***			
GEO-7-1	Assign qualified geotechnical engineers to monitor compliance with design intent. See additional responsibilities in 1983 Compliance Report at pp. 40-41.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
GEO 7-2	Owner shall assign a qualified certified engineering geologist to be present as needed during all phases of site excavation and grading. See additional responsibilities in 1983 Compliance Report at pp. 41-42.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
GEO 7-3	Certification of conditions shall be signed and stamped by certified engineering geologist. See additional responsibilities in 1983 Compliance Report at pp. 42-43.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SECTION 8 –SOILS ***8-1 THROUGH 8-3 SUSPENDED AND 8-4 REMAINS IN EFFECT PURSUANT TO ORDER 93-0426-02.***			
SOILS 8-1	Adhere to objectives of Water Quality Control Basin Plan re turbidity and sedimentation related to construction.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SOILS 8-2	Construct sedimentation system of terraced-ditched slopes and straw bale barriers.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SOILS 8-3	Annually quantify amount of sediments removed from sedimentation collection system.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SOILS 8-4	Prior to decommissioning, prepare site restoration plans.	**ACTIVE** **No Change**	*N/A*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
SECTION 9 - CIVIL ENGINEERING *CONDITIONS 9-1 THROUGH 9-4 SUSPENDED; 9-5 REMAINS IN EFFECT PURSUANT TO ORDER 93-0426-02.*			
CIV ENG 9-1	Notify CEC 30 days prior to submittal of proposed grading plan that plans will be filed on specific date.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
CIV ENG 9-2	Conformance with UBC 79 or other requirements re quality assurance/ quality control procedures for inspectors of earth moving.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
CIV ENG 9-3	Owner shall keep CEC informed re status of construction.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
CIV ENG 9-4	Notify CEC when site earthwork ready for final inspection. Additional requirements identified in 1983 Compliance Report at pp. 47-48.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
CIV ENG 9-5	Prepare and submit reclamation plan to CEC staff to restore site to original conditions.	**ACTIVE** **No Change**	*N/A*
SECTION 10 – STRUCTURAL ENGINEERING *CONDITIONS 10-1 THROUGH 10-6 SUSPENDED PURSUANT TO ORDER 93-0426-02.*			
STRUC ENG 10-1	Design and construct plant and facilities in conformance with applicable LORS. See additional information set forth in 1983 Compliance Monitoring Report at pp. 52-55.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
STRUC ENG 10-2	Establish and maintain as public records the following: Summary of concrete strength tests; copies of concrete pour sign-off sheets; bolt torque inspection reports; weld inspection sheets; and as-built drawings.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
STRUC ENG 10-3	Keep CEC informed of construction status.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
STRUC ENG 10-4	Notify CEC upon completion of each major structure or component.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
STRUC ENG 10-5	File with CEC substantial design changes to final plans.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
STRUC ENG 10-6	Inspection shall be performed in accordance with applicable UBC. Additional requirements set forth in Compliance Monitoring Report at pp. 57-59.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SECTION 11 – SOLID WASTE MANAGEMENT			
CONDITIONS 11-2, 11-4 AND 11-6 SUSPENDED; 11-1, 11-3, 11-5 REMAIN IN EFFECT PURSUANT TO ORDER 93-0426-02.			
WASTE 11-1	Ensure hazardous waste hauler is registered.	**ACTIVE** **No Change**	*N/A*
WASTE 11-2	Only Stretford waste is sulfur cake with some entrained process chemicals. Ensure sulfur cake properly stored. CT sludge hauled off by hazardous materials handler.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
WASTE 11-3	Require that hazardous wastes are taken to facility permitted by CDHS.	**ACTIVE**	
WASTE 11-4	If secondary treatment system is used to abate H_2S emissions, ensure additional waste is properly disposed of. Submit secondary waste disposal plans to CEC for review.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
WASTE 11-5	If hazardous waste stored for more than 60 days, owner shall obtain determination from CDHS that requirements of Hazardous Waste Facility Permit have been satisfied.	**ACTIVE** **No Change**	*N/A*
WASTE 11-6	Ensure construction wastes are taken to licensed waste disposal facility.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SECTION 12 – SAFETY			
CONDITIONS 12-1 THROUGH 12-7 SUSPENDED; 12-8, 12-9 MODIFIED & 12-10 ADDED PURSUANT TO ORDER 93-0426-02			
SAFETY 12-1	Certify that Stretford system pressure vessels and liquid petroleum gas tanks designed, constructed and installed in accordance with Title 8 CAC.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SAFETY 12-2	Owner shall certify Stretford system tanks designed, constructed & installed in accordance with American Petroleum Institute Standard 650.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*

PETITION TO AMEND FINAL DECISION TO RE-FIRE PLANT
Bottle Rock Power Plant (79-AFC-4)

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
SAFETY 12-3	Owner shall certify that lube oil storage tanks are designed and constructed according to Article 145, Title 8, CAC and anchored to resist force of an ELF of 0.5w.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SAFETY 12-4	Owner shall certify that all storage bins and cylinder anchorages for flammable and hazardous substances are designed and constructed to resist force of an ELF of 0.5w.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SAFETY 12-5	Owner shall certify that hydrogen and oxygen systems installed according to Articles 138 & 139, Title 8, CAC.	**SUSPENDED** **Activate and Modify**	*No effect: language correction only.*
SAFETY 12-6	Owner shall certify that ammonia and CO2 gas are stored according to Articles 107 & 76, Title 8, CAC.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SAFETY 12-7	Owner shall certify that design and construction are in reasonable conformance with applicable fire safety codes.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SAFETY 12-8	Owner shall continue to abide by approved accident prevention program.	**SUSPENDED** **Activate**	*No effect: Original condition remains the same.*
SAFETY 12-9	Owner shall request CA-OSHA on-site safety inspections during suspension immediately following any complaint.	**ACTIVE** **No Change**	*N/A*
SAFETY 12-10	During suspension, owner shall remove from site all chemicals, solvents, and lubricants except those essential to maintain plant.	**ACTIVE** **No Change**	*N/A*
SECTION 13 - TRANSMISSION LINE SAFETY AND NUISANCE AND (SECTION 14) TRANSMISSION LINE ENGINEERING ALL CONDITIONS REMAIN IN EFFECT PURSUANT TO ORDER 93-0426-02			
TLSN 13-1	File "Notice of Construction or Alteration" with FAA if construction anticipated resulting in transmission line being more than 200 feet in height.	**ACTIVE** **No Change**	*N/A*

COC #	DESCRIPTION OF COC	STATUS OF COC & EFFECT ON COC[1]	EFFECT OF CHANGE
TLSN 13-2	Owner shall construct, operate, and maintain transmission lines in accordance with Title 14 CAC, sections 1254-1256 and PRC sections 4292-4296.	**ACTIVE** **No Change**	*N/A*
TLSN 13-3	Owner shall ensure ungrounded metallic fences longer than 150 feet within right-of-way shall be grounded.	**ACTIVE** **No Change**	*N/A*
TLSN 13-4	In event of complaints regarding induced currents from vehicles, portable objects, large metallic roofs, fences, gutters or other objects, owner shall investigate and take measures to correct problem.	**ACTIVE** **No Change**	*N/A*
TLSN 13-5	Owner shall ensure design and construction of transmission line satisfies PUC General Order 95 and the terms and conditions of CEC Certification.	**ACTIVE** **No Change**	*N/A*
TLSN 13-6	On-site worker safety inspections may be conducted by CA/OSHA during construction and operation.	**ACTIVE** **No Change**	*N/A*
TLSN 13-7	Owner shall make reasonable effort to locate and correct all causes of radio interference and television interference attributed to transmission line facilities.	**ACTIVE** **No Change**	*N/A*
SECTION 16 – NOISE ***CONDITIONS 16-2 AND 16-3 SUSPENDED & 16-1 MODIFIED & IN EFFECT PURSUANT TO ORDER 93-0426-02.***			
NOISE 16-1	Owner shall comply with Lake County's noise ordinance, which is 55 dBA and 45 dBA Ln at any point beyond the property line of the source. Noise complaints shall be investigated and reasonable measures taken to resolve complaints.	**ACTIVE** **No Change**	*N/A*
NOISE 16-2	Within 90 days after plant reaches rated power generation and construction is complete, owner shall conduct noise survey at 500 feet from generating station or at point acceptable to owner, CEC and LCAQMD.	**SUSPENDED** **Activate and Modify**	*Minimal effect.*
NOISE 16-3	Within 90 days after start of commercial operation, owner shall prepare noise survey report .	**SUSPENDED** **Activate and Modify**	*Minimal effect.*

EXHIBIT D

PETITION TO AMEND FINAL DECISION TO RE-FIRE PLANT
BOTTLE ROCK POWER PLANT
79-AFC-4

EXHIBIT D

PROPOSED CHANGES TO CONDITIONS OF CERTIFICATION

BRP proposes the following changes to the below Conditions of Certification. Text to be deleted from existing Condition of Certification is shown in strikethrough format and text to be inserted is underlined.

AIR QUALITY 1-2
~~DWR~~ Project Owner shall comply with the requirements specified in the Lake County Air ~~Pollution Control~~ Quality Management District ~~document entitled, "Modified Determination of Compliance,"~~ Authority to Construct for the Bottle Rock Power Plant (Permit # A/C 80-034A) as amended. ~~dated February 22, 1982, and with the conditions of the CEC Decision on DWR's Petition.~~

Verification: ~~DWR~~ Project Owner shall annually request a letter from the Lake County Air ~~Pollution Control~~ Quality Management District verifying the status of ~~DWR's~~ compliance with the conditions of the ~~modified Determination of Compliance~~ Authority to Construct. ~~DWR~~ Project Owner shall provide the ~~CEC~~ Compliance Project Manager ~~with~~ a copy of this letter in the annual compliance report. In addition, ~~DWR~~ Project Owner shall provide ~~the CEC with~~ a copy of all quarterly reports and testing/monitoring summary reports submitted to the ~~LCAPCD~~. Lake County Air Quality Management District

AIR QUALITY 1-3
~~DWR~~ Project Owner shall ~~obtain~~ utilize atmospheric emissions control systems as specified by ~~written approval from both LCAPCD~~ Lake County Air Quality Management District in the permit conditions in the determination of compliance and the Authority to Construct #A/C 80-034A when such systems and their use have been approved by the CEC. Such systems shall include a Stretford H_2S abatement system, a secondary H_2S treatment system utilizing iron chelate injected into hot condensate and an emergency steam turbine bypass for outages. ~~and CEC before using any equipment other than the Hydrogen Peroxide Stretford/surface condenser system and turbine bypass system as specified in the Modified Determination of Compliance (Conditions 2 and 12).~~

Verification: ~~DWR~~ Project Owner shall ~~file a copy~~ submit copies of ~~the written approval from the LCAPCD~~ any correspondence, applications to, or approvals by Lake County Air Quality Management District to the Compliance Project Manager. ~~with the CEC~~ When submitted or received and prior to beginning construction of any ~~alternative~~ H_2S emission abatement system.

AIR QUALITY 1-5

~~Modified DOC Conditions 14 and 20~~ Lake County Air Quality Management District requires submittal of a detailed test plan for testing the performance of the Bottle Rock Power Plant H_2S emissions abatement systems at normal full load operation. ~~If continuous H_2S monitors are available (determined by LCAPCD and ARB), DWR~~ Project Owner shall ensure that the detailed plan includes the following test parameters: (1) the test data shall reflect a minimum ~~of 80 percent of the gross electricity generating capacity~~ gross output of 17 megawatts and (2), in the event that at least 30 days of qualifying data ~~could not~~ can be obtained during the required 90-day test period specified in the Modified DOC, ~~DWR~~ Project Owner 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 Modified DOC Condition 16 and need only include the results of the performance test conducted during the initial 90 days of commercial operation.~~

Verification: ~~DWR~~ Project Owner shall provide the ~~CEC~~ Compliance Project Manager ~~with~~ a copy of the detailed plan submitted to ~~the LCAPCD~~ Lake County Air Quality Management District 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, ~~DWR~~ Project Owner shall file a supplementary report with the CEC and ~~the LCAPCD~~ Lake County Air Quality Management District which reflects all the results of the performance test.

AIR QUALITY 1-6

~~DWR~~ Project Owner shall, if requested by the Lake County Air ~~Pollution Control~~ Quality Management District, operate and maintain an on-site meteorological station capable of determining wind direction, wind speed, and temperature.

Verification: ~~DWR~~ Project Owner shall furnish such data in a form acceptable to the ~~LCAPCD~~ Lake County Air Quality Management District. The submittals shall be noted in periodic compliance reports filed with the CEC.

PUBLIC HEALTH 2-7

In the second year of ~~commercial~~ renewed operation, ~~DWR~~ Project Owner shall perform a mass balance measurement for mercury and arsenic.

Verification: ~~DWR~~ Project Owner will prepare a report on the mass balance measurements and calculations. ~~DWR~~ Project Owner shall ~~send~~ submit the report to the ~~CDHS and CEC~~ Compliance Project Manager 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.

NOISE 16-2

Within 90 days after the plant reaches ~~its rated power generation capacity and construction is complete, DWR~~ 17 megawatts gross output, Project Owner shall conduct a noise survey at 500 feet from the generating station or at a ~~point acceptable to DWR, CEC and LCAPCD~~ location approved by the Compliance Project Manager. The survey will cover a 24 hour period with results reported in terms of L_x (x = 10, 50, and 90), L_{eq}, and L_{dn} levels.

~~DWR~~ Project Manager 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 non-compliance.

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 ~~DWR~~ Project Manager shall submit its report to the ~~LCAPCD~~ Lake County Air Quality Management District.

NOISE 16-3
Within 90 days after the start of ~~commercial~~ renewed operations, ~~DWR~~ Project Manager 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 provision 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: ~~DWR~~ Project Manager shall notify CA/DOSH and the CEC of the availability of the report.