



California Regional Water Quality Control Board
Colorado River Basin Region



Matthew Rodriguez
 Secretary for
 Environmental Protection

73-720 Fred Waring Drive, Suite 100, Palm Desert, California 92260
 (760) 346-7491 • Fax (760) 341-6820
<http://www.waterboards.ca.gov/coloradoriver>

Edmund G. Brown Jr.
 Governor

August 10, 2011

Mr. Doug Hackley
 Project Manager, New Plant Development - CalEnergy
 CE Obsidian Energy, LLC
 7030 Gentry Road
 Calipatria, CA 92233

**RE: ORDER FOR TECHNICALLY-CONDITIONED CLEAN WATER ACT SECTION 401
 WATER QUALITY CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR
 FILL MATERIALS**

PROJECT: CE Obsidian Energy, LLC - Black Rock 1, 2, and 3 Geothermal Power Project

APPLICANT: CE Obsidian Energy, LLC

- ACTION:**
- 1. Order for Standard Certification
 - 2. Order for Technically-Conditioned Certification
 - 3. Order for Denial of Certification

STANDARD CONDITIONS:

The following standard conditions apply to all certification actions, except as noted above under Action 3 for denials.

- 1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).
- 2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR section 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- 3. The validity of any non-denial certification action (Actions 1 and 2) shall be conditioned upon total payment of the full fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.

California Environmental Protection Agency

4. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under State law. For purposes of Clean Water Act (CWA) section 401(d), the applicability of any State law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Water Quality Certification (WQC).
 - a. In response to a suspected violation of any condition of this WQC, the Regional Water Quality Control Board (Regional Water Board) may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Water Board deems appropriate, provided that the burden, including cost of the reports, shall be in reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
 - b. In response to any violation of the conditions of this WQC, the Regional Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

ADDITIONAL CONDITIONS:

The following additional conditions apply to this certification:

1. This WQC applies towards the proposed project (Project), as described in the original 401 application received by the Regional Water Board on September 29, 2009, and in the supplemental information to update the application received on June 8, 2011. The issuance of the WQC was delayed because the Applicant continued to work with the U.S. Army Corps of Engineers (Corps), the U.S. Environmental Protection Agency, and the Regional Water Board to fully assess the environmental impacts of the Project and provide the required information to the aforementioned agencies.

The Applicant shall provide the Regional Water Board and other interested agencies with written notification of any significant modifications made to the Project prior to implementation of the modifications.

2. This WQC does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
3. This WQC does not authorize the Applicant or any associated party to trespass on any land or property unless the applicant has obtained written authorization or acquired a special use authorization permit from the land or property owner.
4. A copy of this WQC shall be provided to the appropriate onsite Supervisor for the Project. All personnel performing work on the proposed Project shall be familiar with the contents of this WQC. Copies of the WQC shall be readily available at the Project site at all times



during periods of active work and shall be presented to regulatory agency representatives upon request.

5. The Applicant shall grant Regional Water Board staff, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to enter the Project site at reasonable times, to ensure compliance with the terms and conditions of this WQC and/or to determine the impacts the Project may have on waters of the United States.
6. The proposed Project shall not be enlarged or extended beyond the proposed Project impact area. The Applicant shall delineate the project boundaries and staging areas with stakes, flags and/or temporary construction fencing.
7. The area of vegetation and soil disturbance shall be restricted to the smallest extent possible.
8. The Project shall not discharge substances in concentrations toxic to human, plant, animal, or aquatic life or that produce detrimental physiological responses.
9. The Project shall not discharge waste classified as "hazardous" as defined in Title 23 California Code of Regulations (CCR) section 2521, California Health and Safety Code section 25140, and Title 22, CCR, section 66260.10 et seq.
10. No oil, petroleum products, or rubbish shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the United States.
11. No equipment maintenance will be done within or near any stream channel where petroleum products or other pollutants from the equipment may enter waters of the United States.
12. Equipment refueling shall not occur within waters of the United States.
13. Any oil or grease leaks shall be immediately cleaned up.
14. The Applicant shall ensure that all contaminated material and/or contaminated soil removed or excavated from the Project site is properly loaded, transported, and disposed of in accordance with Federal, State, and local regulations.
15. Staging/storage areas for equipment and materials shall be located outside of waters of the United States.
16. The Applicant shall ensure that all disturbed and filled areas are adequately stabilized and protected from erosion and siltation by implementing appropriate soil stabilization, sedimentation and silt control measures.



17. Any flow diversion used during construction shall be designed in a manner to prevent pollution, minimize siltation, and shall provide flows to downstream reaches. Flows shall be maintained to support existing aquatic life and riparian wetlands and habitat that may be located upstream and downstream from any temporary diversion.
18. The Applicant shall restore drainages, to the greatest extent possible, to the original bank configuration, stream bottom width, and channel gradient.
19. All temporary facilities and impacts shall be removed and restored to the preexisting conditions and contours to the extent practicable.
20. Construction related materials and wastes shall be removed from the Project site upon completion of the Project.
21. The Applicant shall submit Notice to the Regional Water Board within 60-days of completion of the Project. The Notice shall include: 1) a detailed summary of the mitigation and restoration activities implemented during the project and 2) provide photographic documentation that supports the information summarized in the Notice.
22. The Regional Water Board reserves the right to suspend, cancel, or modify and reissue this WQC, after providing notice to the Applicant and/or responsible Site Supervisor, if the Regional Water Board determines that the Project fails to comply with any of the terms or conditions of this WQC.
23. The Applicant shall orally notify the Regional Water Board of any noncompliance that may impact the beneficial uses of waters of the United States, as soon as notification is possible and notification can be provided without substantially impeding measures necessary to address the noncompliance.

REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:

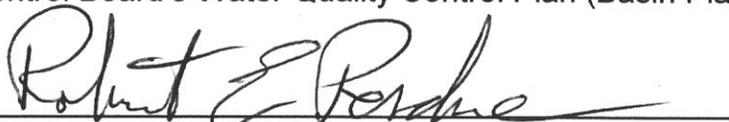
If you have any questions, please contact Jay Mirpour, Water Resources Control Engineer, at (760) 776-8981 or jmirpour@waterboards.ca.gov.



WATER QUALITY CERTIFICATION:

I hereby issue an order certifying that any discharge from the referenced Project will comply with the applicable provisions of sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law.

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicants' project description and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the Regional Water Quality Control Board's Water Quality Control Plan (Basin Plan).



ROBERT PERDUE, Executive Officer
Colorado River Basin Regional Water Quality Control Board

JJM/

cc: Lanika Cervantes, U.S. Army Corps of Engineers, Carlsbad Field Office
Bill Orme, SWRCB, Division of Water Quality, Water Quality Certification Unit
Elizabeth Goldmann, U.S. Environmental Protection Agency, Region 9
Thomas A. Vandenberg, Office of Chief Counsel, SWRCB
James Gorham, CH2M HILL
Michael P. Fawdry, ICSuS Group

File: CE Obsidian Energy, LLC - Black Rock 1, 2, and 3 Geothermal Power Project, WDID
No. 7A133032001



Mailing List:

Lanika Cervantes
U.S. Army Corps of Engineers, San Diego Section
6010 Hidden Valley Road, Suite 105
Carlsbad, California 92011

Bill Orme (*)
Water Quality Certification Unit
Division of Water Quality
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Elizabeth Goldmann
Wetlands Regulatory Office
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

Thomas A. Vandenberg (*)
Staff Counsel
Office of Chief Counsel
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Michael P. Fawdry (*)
The ICSuS Group
12203 Azalea Court
Worton, MD 21678

James Gorham
CH2M HILL
6 Hutton Centre Drive, Suite 700
Santa Ana, CA 92707

Note: (*) will e-mail electronic copy



PROJECT INFORMATION

Application Date: The original application was submitted on September 29, 2009, and supplemental information to update that application was received on June 8, 2011. The issuance of the WQC was delayed because the Applicant continued to work with the U.S. Army Corps of Engineers (Corps), the U.S. Environmental Protection Agency, and the Regional Water Board to fully assess the environmental impacts of the Project and provide the required information to the aforementioned agencies.

Applicant: CE Obsidian, LLC

Contact: Mr. Doug Hackley, (760) 604.2792

Applicant Representative: CH2M HILL
Mr. James Gorham, (714) 435-6151

Project Name: CE Obsidian Energy, LLC - Black Rock 1, 2, and 3 Geothermal Power Project

Project Start and Completion: May 1, 2012 – May 1, 2015

Project Description (purpose/goal): CE Obsidian Energy LLC proposes to construct three geothermal plants that will produce a combined total of 159 MW net (nominal) of clean, renewable energy, with the project entitled Black Rock 1, 2, and 3 Geothermal Power Project.

Project Location: City or Area: Unincorporated Area, County: Imperial
Longitude: 115° 37'22" W
Latitude: 33° 10'10" N
Township/Range: Section 33 SW 4, T11S, R13E

Receiving Water(s): Trifolium Lateral 15 Drain and the Salton Sea

Fill/Excavation Area (acres and linear feet): Streambed (vegetated): 0.37 acre and 2080 linear feet permanent and 0.508 acre and 5,529 linear feet temporary.

Dredge Volume (cy): None

Mitigation: For a complete description of mitigation requirements, please refer to the CH2M HILL's "Conceptual Mitigation Plan for Impacts to



Aquatic Resources Protected Under the Federal Clean Water Act - Black Rock 1, 2, and 3 Geothermal Power Project," prepared for the United States Army Corps of Engineers, dated May 2011, submitted on behalf of CE Obsidian Energy, LLC.

Federal Permit(s): U.S. Army Corps of Engineers section 404 Permit Number SPL-2010-00024-RRS.

Status of CEQA: Section 21080.5 of the Public Resources Code provides that a regulatory program of a state agency shall be certified by the California Secretary for Natural Resources as being exempt from the requirements under the California Environmental Quality Act (CEQA) (Pub. Resources Code section 21000 et seq.) for preparing Environmental Impact Reports, negative declarations, and initial studies if the Secretary finds that the program meets the criteria specified in that code provision. A certified program remains subject to other provisions in CEQA, however, such as the policy of avoiding significant adverse effects on the environment where feasible.

The power plant site certification program of the California Energy Commission (CEC) under Chapter 6 of the Warren-Alquist Act, commencing with Public Resources Code section 25500, was certified by the Secretary as meeting the criteria of section 21080.5. Accordingly, pursuant to this certification, the CEC was authorized to prepare a CEQA-equivalent document to evaluate whether a proposed project may have a significant effect on the environment. The CEC calls this CEQA-equivalent document a "Final Staff Assessment."

On December 17, 2003, the CEC granted a license to the Applicant to construct a 185 megawatt (MW) geothermal generating plant that would utilize multiple flash geothermal power generating technology. The Project was identified then as the Salton Sea Unit #6 Geothermal Power Project. The CEC published its approval in a Commission Decision, dated December 19, 2003. The Commission Decision included approval of the Final Staff Assessment prepared for this original project and a Staff Addendum.

The 2003 license was amended in May 2005 to allow the plant to increase its capacity from 185 MW to 215 MW, using the same multiple flash technology. The Applicant petitioned, and the CEC subsequently granted, an extension to the Salton Sea Unit 6 license, making it effective until December 18, 2011.

In a petition for major amendment filed with the CEC on March 12, 2009, the Applicant requested approval to amend its license to allow for the construction of three smaller geothermal power plants totaling 159 MW net of generating capacity in lieu of the single 215 MW plant. While both the 185 MW and 215 MW projects proposed using multiple flash geothermal power generating technology, the Amended Project proposes using single flash technology, which the Applicant contends requires less facility infrastructure, and produces less waste compared to multiple flash technology. The Applicant also requested approval of a name change to its current name to better reflect the Amended Project's configuration.

The three units will be co-located on the same site as the original SSU6 project and will share various common auxiliary facilities. The site is currently used for agriculture. Land uses in the surrounding area include existing geothermal power facilities, agriculture, and the Sonny Bono Salton Sea National Wildlife Refuge. The original project site was comprised of an 80-acre site bounded by paved roads on all sides. The Amended Project includes the original 80-acre site plus an additional 80 acres of agricultural land adjacent to the south, part of which was used for construction support in the original project. The three power plants will be situated generally in the middle of the site with production well pads on the northern, western, and southern perimeters of the site.

A subsequent Staff Assessment, dated November 2010, was prepared for the Amended Project (the Project that is the subject of this WQC), to assess its direct, indirect, and cumulative impacts on the environment, public health and safety, and the electric transmission system. This review process included an evaluation of the consistency of the proposed changes with the 2003 Commission Decision for the previous single 215 MW multi-flash technology project and with current applicable laws, ordinances, regulations, and standards (LORS).

The review process also included the petition information required by Title 20, California Code of Regulations (CCR), section 1769 ("Post Certification Amendments and Changes"), subdivision (a)(1). In relevant part, these informational requirements include:

- "(A) A complete description of the proposed modifications, including new language for any conditions that will be affected;
- (B) A discussion of the necessity for the proposed modifications;
- [] . . . []



- (E) An analysis of the impacts the modification may have on the environment and proposed measures to mitigate any significant adverse impacts;
- (F) A discussion of the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards;
- (G) A discussion of how the modification affects the public....”

The Staff's analysis determined that the technical areas of hazardous materials management, power plant efficiency and reliability, noise and vibration, public health, socioeconomics, traffic and transportation, transmission line safety and nuisance, transmission system engineering, visual resources, waste management, and worker safety and fire protection were not affected by the proposed changes, and no revisions or new conditions of certification were needed to ensure the project remains in compliance with all applicable LORS.

Also, CEC's Staff concluded that the following findings required by subdivision (a)(3) of Section 1769, Title 20, CCR, could be made to allow Staff to recommend approval of the petition to the Commission:

- A. There will be no new or additional unmitigated significant environmental impacts associated with the proposed changes;
- B. The facility will remain in compliance with all applicable LORS;
- C. The change will be beneficial to the project owner by increasing operational efficiencies and enhancing the project's economics. Moreover, the change will be beneficial to the State of California by increasing power in an area of need (southern California); and,
- D. There has been a substantial change in circumstances since the Commission certification justifying the change. The single-flash design will provide superior environmental performance compared to the licensed multiple-flash configuration.

In a Commission Decision, dated February 2, 2011, the CEC agreed with Staff's analysis. In relevant part, the Commission reached the following conclusions:

- The petition meets all the filing criteria of CCR, Title 20, section 1769(a), concerning post-certification project modifications.

- The modification will not change the findings in the CEC's Final Decision.
- The Project will remain in compliance with all applicable LORS.
- The change will be beneficial to the public because it will significantly decrease environmental impacts compared to the originally licensed project.
- The modification was requested based on a substantial change in circumstance since the original project was approved, and the modification is justified.

Accordingly, the CEC adopted Staff's recommendation and approved the Applicant's Petition to Amend its License to allow construction and operation of the Black Rock 1, 2, and 3 Geothermal Power Plant.

In its application for a Clean Water Act Section 404 permit from the Corps, the Applicant, through its consultant, CH2M Hill, prepared on May 2011 the "Conceptual Mitigation Plan for Impacts to Aquatic Resources" document referenced above in the "Mitigation" entry (Conceptual Mitigation Plan). As explained in this document, prior to commencement of construction in waters of the U.S. for the Project, the Applicant will finalize the Conceptual Mitigation Plan into a Final Mitigation Plan, which will contain all information required pursuant to the "Compensatory Mitigation for Losses of Aquatic Resources" Final U.S. EPA Rule (Federal Register, Vol. 73, No. 70, April 10, 2008). The Applicant also explained that approval of the final plan by the Corps will be required prior to initiating construction, but anticipates that the level of information provided in the Conceptual Mitigation Plan should be sufficient for permit issuance by the Corps.

Regional Water Board's staff has reviewed the CEC's Staff Assessment for the Amended Project, including the proposed modifications to the Soil and Water Resources Conditions of Certification that pertain to the Applicant's requirement to obtain a 404 Permit from the Corps and a 401 WQC from the Board, as specified in Conditions of Certification "Soil & Water-4," and "Soil & Water-5" (Staff Assessment, pp. 4.8-28 & 29 (PDF Document, pp. 216-217 of 404)). Board's staff has also reviewed the CEC's Commission Decision, dated February 2, 2011, and the May 2011 Conceptual Mitigation Plan prepared by the Applicant's consultant for the Corps.

Regional Water Board's staff agrees with the CEC's Staff Assessment and the Commission Decision that the potentially



significant impacts to water quality caused by the Project, as amended, will be avoided or will be reduced to less than significant levels provided that the Applicant complies with the mitigation measures specified in the Soil & Water Resources Conditions of Certification. Also, Regional Water Board's staff concludes that the Project, as amended, should not cause any significant water quality impacts provided that the Applicant complies with the Final Mitigation Plan approved by the Corps, assuming that it is consistent with the Conceptual Mitigation Plan that Board's staff was able to review.

Nevertheless, the Applicant is reminded that Additional Conditions No. 22 clarifies that the Regional Water Board reserves the right to suspend, cancel, or modify and reissue this WQC, after providing notice to the Applicant and/or responsible Site Supervisor, if the Regional Water Board determines that the Project fails to comply with any of the terms or conditions of this WQC. These terms and conditions include the aforementioned CEC Soil & Water Resources Conditions of Certification and the Final Mitigation Plan that is approved by the Corps as well as all other conditions specified in this WQC.

File: CE Obsidian Energy, LLC - Black Rock 1, 2, and 3 Geothermal Power Project, WDID No. 7A133032001

