

## DOCKETED

<b>Docket Number:</b>	79-AFC-04C
<b>Project Title:</b>	Compliance - Application for Certification of DWR Bottlerock Geothermal Project
<b>TN #:</b>	201062
<b>Document Title:</b>	Staff Response to Comments Received Regarding Staff's Analysis of the Bottle Rock Geothermal Power Plant-BRPP Petition to Amend
<b>Description:</b>	N/A
<b>Filer:</b>	Camile Remy-Obad
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	10/28/2013 12:05:42 PM
<b>Docketed Date:</b>	10/28/2013

# Memorandum

**Date :** October 28, 2013  
**Telephone :** (916) 654-3940  
**File :** 79-AFC-4C

**To:** **Commissioner Karen Douglas**, Presiding Member, Bottle Rock Amendment Committee  
**Commissioner Janea Scott**, Associate Member, Bottle Rock Amendment Committee  
**Paul Kramer**, Hearing Officer, Bottle Rock Amendment Committee

**From :** **California Energy Commission**  
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**Subject :** **ENERGY COMMISSION STAFF RESPONSE TO COMMENTS RECEIVED REGARDING STAFF'S ANALYSIS OF THE BOTTLE ROCK GEOTHERMAL POWER PLANT (BRPP) PETITION TO AMEND (79-AFC-4C)**

## I. INTRODUCTION

On September 6, 2013, staff published its analysis (Staff Analysis) of BRPP's Petition to Amend (Petition) and a compilation of the facility's existing conditions of certification.

By October 2, 2013, staff received written comments on the Staff Analysis from representative counsel for the Complainant (David Coleman) and Intervener (Friends of Cobb Mountain) (Coleman), the Petitioner (Bottle Rock Power, LLC.) (BRP), the landowner (V.V. & J. Coleman, LLC), and from interested parties including the California Department of Water Resources and U.S. Congressional Representative Mike Thompson. On October 4, 2013, staff conducted a public workshop to receive additional comments and to discuss any recommendations for administrative revisions to staff's compendium of BRPP's existing conditions of certification. BRP filed additional written responses on October 11, 2013.

This memorandum provides the Bottle Rock Amendment Committee with staff's responses to the comments received to date and recommendations for revisions to proposed conditions **GEN-15** and **GEN-16** from the Staff Analysis and revisions to existing conditions of certification **AC21-2**, **AC23-2**, **AC23-4**, **AC23-5** and **AC23-7**.

## II. PUBLIC COMMENT SUMMARIES AND STAFF RESPONSE

The bulk of the public comments fall into three main categories: 1). BRPP's decommissioning cost estimates; 2). BRP's financial assurances; or 3). Existing or proposed conditions of certification clarifications.

## **BRPP's Decommissioning Cost Estimates**

### ***Public Comments***

Comments were received stating that staff's recommendations regarding the amount of the bond did not properly weigh the concerns of all parties, would place millions of dollars invested in the facility at risk, were burdensome to the facility, or were arbitrary due to the age and scope variability amongst the eight estimates analyzed. BRP asserts that their July 2013 estimate is the only appropriate and accurate estimate, inclusive of all removal, handling and transportation costs, and no evidence exists to suggest it is inadequate. Based on these assertions BRP argues that staff's 25% contingency factor is unsupported. Coleman asserts BRP's continuous refusal to provide information and failure to evidence its financial ability to meet its decommissioning responsibilities, coupled with the variability of the BRPP closure cost estimates in the record, supports staff's approach. Based upon these comments, staff agreed to re-evaluate BRP's most recent cost estimates and provides the following responses.

### ***Staff's Responses and Recommendations***

The cost estimate provided in the Staff Analysis and in this response adequately addresses all costs known at this time to close the facility at an *unknown* future date. Staff recognizes that additional costs may be identified when a provisional closure plan and estimate of permanent closure costs or a final closure plan is prepared and approved, as recommended by proposed condition **COM-15**. However, at this time, there has been no comprehensive process to identify all of the costs that will be necessary upon closure of the facility. Therefore, staff has set an initial obligation amount (contained in proposed condition **COM-16**) to reflect reasonable foreseen and necessary costs for plant closure. We recognize that the amount will change if or when additional costs are identified pursuant to the provisions of proposed condition **COM-15**.

Per the Commission's May 30, 2001 order, which requires that BRP "strictly adhere to the terms of the 'Purchase Agreement for the Bottle Rock Power Plant,'" the amount of the bond that BRP is required to maintain is \$5 million. However, based on the information provided by BRP through these Amendment proceedings and through staff's independent analysis, staff recommended the adoption of proposed condition **COM-16** which provided that the bond's obligation amount should be reduced to \$4.13 million. This amount, as explained in the Staff Analysis, was derived utilizing various closure cost estimates received from the facility over 17 years. At the October 4, 2013 Staff Workshop, the most recent closure cost estimate of \$709,000 prepared by Plant Reclamation, dated July 29, 2013 (tn. #20053), was discussed. BRP calculates costs, and then credits material salvage and equipment resale values to arrive at their estimate of \$709,000. BRP's written comments reiterate the project owner's position that this cost estimate most accurately reflects the scope and methods it proposes to obtain a bond in the event that the project is closed or abandoned.

Staff agreed to revisit the July 29, 2013 estimate of closure costs, while at the same time, clarifying the methods and assumptions used in the September 6, 2013 Staff Analysis. Staff stated that the assumptions they used in their September Staff Analysis would likely apply to any revisit of the assumptions and costs in the July 29, 2013 estimate.

Staff reviewed the July 29, 2013 cost estimate and offers the following adjustments to account for conditions reasonably foreseen and necessary for plant decommissioning.

1. The project owner has not factored in expenses, activities or conditions, described below, which would significantly reduce or eliminate the proposed salvage credit. For this reason, staff continues to recommend the disallowance of the salvage value of \$1,265,000, which increases the project owner's closure reserve to \$1,974,000 (\$709,000 + \$1,265,000). The disallowance of salvage materials and equipment is based on the following unaccountable conditions:
  - a) Contamination: Geothermal brine and steam contain constituents that can contaminate power plant materials and equipment. If materials or equipment are sold, and need to be transported off-site, then salvage value should consider:
    - Potential decontamination costs of the turbine assembly and preparation for removal and transport.
    - Potential decontamination of Stretford units, degasification plant, and piping and material prior to scrap metal removal for resale or disposal.
  - b) Transportation: The remoteness of the site and the limitations of the two available truck routes (SR175-Middletown-Mount Saint Helena-Calistoga OR SR175-Lower Lake-Clear Lake-SR20, Williams) have not been accounted for. Transport costs could be affected due to:
    - Transport and scheduling of oversized loads.
    - Traffic control and/or closure.
  - c) Equipment Value: The value of equipment, such as the low pressure steam turbine, is highly speculative due to its ongoing use in a harsh geothermal environment, and competing liens, claims, or conditions of sale, if conditions required plant closure.
2. The project owner proposes to leave the turbine building and surrounding graded areas within the plant fence line in place, but its estimate does not account for the lack of fill rubble from not demolishing the turbine building. Fill would need to be imported to fill in the cooling tower sump, Stretford system and degasification plant. In order to cover this, staff adds \$185,000<sup>1</sup> to the above figure of \$1,974,000, totaling \$2,159,000.
3. Since the closure cost budget represents a "feasibility level" estimate of the closure work and cannot benefit by comparison with other independently prepared work estimates, Staff recommends a 25 percent contingency of \$539,750 ( $\$2,159,000 \times 0.25$ ), bringing the total direct closure cost to \$2,698,750 ( $\$2,159,000 + \$539,750$ ). This contingency is based on guidelines presented in the California Department of Transportation's "Project Development Procedures Manual dated December 15, 2007," Chapter 20 "Project Development Cost Estimates" and Appendix AA "Cost

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<sup>1</sup>Amount taken from the April 15, 2013 cost estimate prepared by Plant Reclamation, p.6.

Estimates,<sup>2</sup> where compilation of a proposed project definition is in the last phases of feasibility before actual design commences.

Furnished below is a tabulation of the project owner's estimate of \$709,000 and the Staff's recommended reduced closure bond value of \$2,698,750.

Staff started with the owner's estimated costs for closure, but does not agree that the project will be able to realize the salvage and equipment sales assumed by BRP. Secondly, the retention of the turbine building necessitates the additional cost to import infill and inclusion of an additional \$185,000 cost. Finally, the 25 percent contingency reflects the uncertainty of the closure work scope, given the lack of clarity of the extent of hazardous waste disposal, transportation, and salvage value, all at some future indeterminate date. For reasons stated above, staff recommends that the bond be reduced from the current requirement of \$5 million to \$2,698,750 to cover the cost of plant closure. Staff recommends that the closure costs be revisited every 3 years to reflect actual site conditions, labor and equipment rental costs, and liens on the site.

**Table 1 Budget Cost Comparison**

<b>Description</b>	<b>CEC Staff's Estimates</b>	<b>Plant Owner's Estimates</b>
• Removal	1,062,500	1,062,500
• Backfill	276,500	276,500
• Other	80,000	80,000
• HazMat Waste Disposal	555,000	555,000
Subtotal <sup>a</sup>	<b>1,974,000</b>	<b>1,974,000</b>
Salvage Credit <sup>b</sup>	0	-1,265,000
Import Rubble Required for Site Infill <sup>c</sup>	185,000	
Subtotal	<b>2,159,000</b>	
25 percent Contingency	539,750	
<b>Total Required for Closure Bond</b>	<b>\$2,698,750</b>	<b>\$709,000</b>

- a. Amount taken from the July 29, 2013 cost estimate prepared by Plant Reclamation, p.5.  
 b. Amount taken from the July 29, 2013 cost estimate prepared by Plant Reclamation, p.6.  
 c. Amount taken from the April 15, 2013 cost estimate prepared by Plant Reclamation, p.6.

## **BRP's Financial Assurances**

### ***Public Comments***

Staff received several comments regarding the terms and conditions of the closure security bond. Coleman advocates for continuing financial assurances. BRP purports "(a)s documented in these proceedings, the [BRPP] is no longer a 'highly speculative business transaction'" thus staff has no basis to conclude that immediate funding of the full cost of decommissioning is necessary and no reason to assume that decommissioning is reasonably likely to occur in the short term<sup>3</sup>.

<sup>2</sup> ([http://www.dot.ca.gov/hq/oppd/pdpm/chap\\_pdf/chapt20.pdf](http://www.dot.ca.gov/hq/oppd/pdpm/chap_pdf/chapt20.pdf),  
[http://www.dot.ca.gov/hq/oppd/pdpm/apdx\\_pdf/apdx\\_aa.pdf](http://www.dot.ca.gov/hq/oppd/pdpm/apdx_pdf/apdx_aa.pdf)),

<sup>3</sup> BRP has nonetheless offered to obtain a \$709,000 bond to cover their estimated costs of decommissioning.

### ***Staff's Responses and Recommendations***

Staff continues to support the provisions in proposed condition **COM-16** requiring a bond. The comments received either support the use of a bond to pay for closure costs and, in the case of BRP, have offered in their comments to provide a bond.

BRP's contention that the BRPP is no longer a highly speculative business transaction was not supported by any accompanying data. Thus, staff is unable to provide any response to this comment.

### **Clarification to BRPP's Existing or Proposed Conditions of Certification.**

#### ***Public Comments***

Coleman expressed concern that the language in **COM-16**, requiring for an adjustment to the surety bond amount to reflect any change in estimated costs, could be interpreted as voluntary instead of mandatory. Coleman also requested the requirement of three independent cost estimates with each triennial provisional closure plan update or the final closure plan to be included in **COM-16**.

Additionally, the Department of Water Resources submitted comments requesting any references to their agency in BRPP's existing conditions of certification be removed as they no longer have any ownership or interest in the facility.

#### ***Staff's Responses and Recommendations***

Staff intended that the provisions for an adjustment to the surety bond amount to reflect any change in estimated costs, as stated in **COM-16**, be mandatory.

Staff believes Coleman's request for three independent cost estimates is too burdensome for BRP, as there are unlikely to be three separate engineering firms with the requisite experience available to provide such estimates. Staff also believes that the redundant analysis is unnecessary because the BRP's provisional closure plan and cost estimate updates will be included with every third year annual compliance plan that is subject to review and approval by staff. Furthermore, proposed condition **COM-15** requires the final closure plan includes a public process that will allow for additional scrutiny and evaluation by interested parties and regulatory agencies and will ultimately be approved by the Energy Commission.

Staff has already removed all references to the Department of Water Resources as an owner of the facility in its proposed conditions in the Staff Analysis. However, staff agrees that all references to any previous BRPP owner should be removed and has identified 5 additional Air Quality (**AC**) conditions that should be changed.

#### ***Staff's Proposed Revisions To Conditions Of Certification***

Based upon comments received and staff's responses, staff proposes the following change to Recommendation A of their September 6, 2013 Staff Analysis and the proposed Compliance Conditions of Certification. Additionally, staff also recommends the following changes to BRP's existing Air Quality Conditions of Certification to remove any references to previous owners:

## **COM-16: Closure Financial Assurances**

### **A. Financial Assurance Mechanism: Surety Bond**

**The project owner must provide financial assurances to the Energy Commission, guaranteeing adequate and readily available funds to finance interim operation, facility closure, and post-closure site care, as needed.**

**Within thirty (30) days following CPM approval of the project owner's first Provisional Closure Plan, pursuant to COM-15, the project owner must establish an irrevocable closure surety bond and standby trust fund. The surety bond must guarantee the project owner's performance of closure, as specified in the Provisional Closure Plan. The bond's obligation amount is initially set at \$4.13 \$2,698,750 and must subsequently be adjusted in the amount of the CPM-approved Provisional Closure Plan.**

**The standby trust fund shall have as its Beneficiary the California State Energy Resources Conservation and Development Commission.**

**Within sixty (60) days of CPM approval of each triennial Provisional Closure Plan prepared pursuant to COM-15, the surety bond amount may shall be adjusted to reflect any change in estimated costs, and within thirty (30) days of any adjustment, the project owner must submit for CEP review and approval all documentation of the adjustment.**

**The project owner must report the current value of the bond and standby trust fund in the Annual Compliance Report.**

**Using surety bond funds to implement closure may not fully satisfy the project owner's obligations under these conditions.**

**Provisions from the California Bond and Undertaking Law, as well as other statutory and case law may be applicable.**

**AC21-2** The ability to return the H<sub>2</sub>S gas treatment components of the AECS operation to the pre-modification operation shall be retained. BRPC The project owner shall notify the District upon completion of tile modifications to arrange for an inspection.

**AC23-2** BRPC The project owner shall install and maintain sampling ports on the influent and effluent sides for each mercury scrubber and measure and report measured efficiency of mercury scrubbing to the AQMD upon reaching 20 megawatts of generation, but no later than within the first year of initial operation. A log shall be maintained of unit maintenance to include dates of media changes and the reason for change out, any events of plugging, and all coincident mercury

measurements made in sulfur product. The log shall be forwarded quarterly to the AQMD, or provided upon request.

**AC23-4** Equipment shall be operated within supplier/manufacturers specifications. A local gauge indicating pressure drop across the unit shall be incorporated into the installation. Additionally, ~~BRPC~~ the project owner shall continuously monitor the scrubbers for pressure loss utilizing the DCS measurements prior to the delay tank and on the backside of the mechanical pumps, and incorporate alert and maintenance action warning levels prior to generation unit trip due to overpressure or back pressure of scrubbing media.

**AC23-5** ~~BRPC~~ The project owner shall notify the District upon completion of installation of the mercury scrubber(s) to arrange for an inspection, and enable source testing to be performed.

**AC23-7** ~~BRPC~~ The project owner shall provide the District, no less than 60 days subsequent to installation of the herein authorized modification, with as-built drawings for the modification, including sample port locations.

cc: Docket (79-AFC-4C)