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13 In the Matter of:  
14 Application for Certification  
15 for the PUENTE POWER PROJECT

Docket No. 15-AFC-01

16 EXPERT DECLARATION OF ANNE  
17 CONNELL IN RESPONSE TO MARCH 10,  
18 2017 COMMITTEE ORDERS

19 I, Anne Connell, declare as follows:

20 1. I am employed by AECOM, which has been retained by the Applicant in these  
21 proceedings to conduct certain analyses associated with the proposed Puente Power Project  
22 (Project). I am the Project Manager responsible for managing the environmental review of the  
23 Project within AECOM and am duly authorized to make this declaration.

24 2. I earned a Bachelor of Science degree in Hydrology from McGill University in  
25 1979 and a Master of Science degree in Civil Engineering-Hydrology from Stanford University  
26 in 1980. I have over 20 years of experience conducting environmental review of development  
27 projects. A copy of my current curriculum vitae was previously submitted in these proceedings.  
28 Based on my education, training and experience, I am qualified to provide expert testimony as to  
the matters addressed herein.

3. Except where stated on information and belief, the facts set forth herein and in the  
attachment hereto are true of my own personal knowledge, and the opinions set forth herein and  
in the attachment hereto are true and correct articulations of my opinions. If called as a witness,

1 I could and would testify competently to the facts and opinions set forth herein and in the  
2 attachment hereto.

3 4. On March 10, 2017, the Committee ordered submission of additional evidence on  
4 a limited number of specific issues identified in the "Committee Orders for Additional Evidence  
5 and Briefing Following Evidentiary Hearings" (TN #216505) (the "March 10 Orders").

6 5. The March 10 Orders direct the California Energy Commission staff and  
7 Applicant to prepare and submit specific additional evidence pertaining to four topic areas,  
8 including "Compliance and Closure." With respect to the topic of Compliance and Closure, the  
9 March 10 Orders direct the CEC staff and the Applicant to submit the following additional  
10 evidence:

- 11 • Analyze a possible requirement that the Puente facilities be demolished  
12 and removed when they are decommissioned and mechanisms for  
13 providing financial assurances (i.e., bonding) for their demolition and  
14 removal; and
- 15 • Supplement the existing analysis of the demolition of existing Mandalay  
16 units 1 and 2 to the extent necessary to analyze the environmental effects  
17 of Puente's demolition and removal.

18 6. The attached document entitled "Puente Power Project Closure Summary" was  
19 prepared by me and is submitted in response to the above-referenced request in the March 10  
20 Orders.

21 7. I hereby sponsor this declaration and the attached document into evidence in these  
22 proceedings.

23 Executed on June 14, 2017, at San Francisco, California.

24 I declare under penalty of perjury of the laws of the State of California that the  
25 foregoing is true and correct.

26  
27   
28 \_\_\_\_\_  
Anne Connell

**ATTACHMENT**

Application for Certification (15-AFC-01)

Puente Power Project

Oxnard, California

## **Closure Summary**

*Prepared For:*

**NRG Energy Center Oxnard LLC**

*Prepared by:*

**AECOM**  
June 2017

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## Acronyms and Abbreviations

|      |  |
|------|--|
| AFC  | Application for Certification                |
| BMP  | best management practice                     |
| CEC  | California Energy Commission                 |
| COC  | Condition of Certification                   |
| CPM  | Compliance Project Manager                   |
| HBM  | hazardous building materials                 |
| LORS | laws, ordinances, regulations, and standards |
| MGS  | Mandalay Generating Station                  |
| P3   | Puente Power Project                         |

# PUENTE POWER PROJECT APPLICATION FOR CERTIFICATION 15-AFC-01 CLOSURE SUMMARY

## 1 Introduction

The Puente Power Project (P3 or project) Application for Certification (AFC) was filed with the California Energy Commission (CEC) on April 15, 2015. P3 includes the construction of a new 262-megawatt generating unit and associated facilities on approximately 3 acres within the fence line of the existing Mandalay Generating Station (MGS) in Oxnard, California. The project consists of the new generating unit and ancillary infrastructure, as well as existing MGS facilities that will be repurposed for use by the new project (see TN #204219.4, Exhibit No. 1003, AFC, Executive Summary, Section 1.7).

Commercial operation of P3 is expected by June 2020. The planned operational life of the proposed facility is approximately 30 years. For this analysis, it is assumed that P3 would be retired, decommissioned, and demolished at that time in accordance with proposed Condition of Certification (COC) COM-15 (TN #214713, Exhibit No. 2001, Final Staff Assessment Part 2). COM-15 requires the Applicant to work with CEC staff to develop and implement a Final Closure Plan to "ensure that . . . eventual permanent closure and maintenance do not pose a threat to public health and safety and/or to environmental quality . . ."

The required contents of the Final Closure Plan include a comprehensive scope of work and itemized budget for permanent plant closure and site maintenance activities, with a description and explanation of methods to be used, broken down by phases, including, but not limited to:

- dismantling and demolition;
- recycling and site clean-up;
- impact mitigation and monitoring;
- site remediation and/or restoration;
- exterior maintenance, including paint, landscaping, and fencing,
- site security and lighting; and
- any contingencies.

The required contents of the Final Closure Plan also include identification and assessment of all potential direct, indirect, and cumulative impacts and proposal of mitigation measures to reduce significant adverse impacts to a less-than-significant level, including but not be limited to analysis of the following areas:

- traffic;
- noise and vibration;
- soil erosion;
- air quality degradation;
- solid waste;
- hazardous materials;
- waste water discharges; and
- contaminated soil.

In the March 10, 2017, "Committee Orders for Additional Evidence and Briefing Following Evidentiary Hearings" (TN #216505), the CEC Committee requested additional information regarding compliance and closure. Specifically, the Committee's request was as follows:

*7. Analyze a possible requirement that the Puente facilities be demolished and removed when they are decommissioned and mechanisms for providing financial assurances (i.e., bonding) for their demolition and removal.*

*8. Supplement the existing analysis of the demolition of existing Mandalay units 1 and 2 to the extent necessary to analyze the environmental effects of Puente's demolition and removal.*

In response to this request, and to assist the CEC in its analysis, Applicant herein provides a summary of the future demolition and closure activities and a qualitative analysis of potential environmental impacts. As required by COM-15, these matters will be addressed with more specificity in the Final Closure Plan, which will benefit from being developed closer in time to the actual closure of P3. The analysis contained herein is based on how Applicant would likely proceed to decommission and demolish P3 if the work were undertaken today. Whether Applicant will proceed in precisely the same manner at the time of actual closure of P3 will depend on the specific circumstances at that time.

On November 19, 2015, Applicant modified the overall scope of the project to include the demolition of the two gas-fired steam-generating units (Units 1 and 2) at the existing MGS. Applicant submitted a description of the proposed modification and an analysis of the environmental impacts associated with the demolition of MGS Units 1 and 2 (TN #206698, Exhibit No. 1064) ("MGS Units 1 and 2 Demolition Enhancement"). The analysis contained herein uses the analysis contained in the MGS Units 1 and 2 Demolition Enhancement as a baseline against which to evaluate the potential impacts associated with the decommissioning and demolition of P3.

## 2 Closure Scope

### 2.1 Scope of Work Overview

All activities associated with the demolition of P3, with the exception of offsite recycling and disposal of materials and waste, would take place within the existing boundaries of MGS on Assessor's Parcel Number 183-0-022-025. Contractor parking and laydown areas for the demolition work will also be within the existing boundaries of MGS.

Applicant proposes to demolish all above-grade structures associated with P3 following its retirement and decommissioning. Demolition of P3 will follow a general systematic approach that allows for cleanup and removal of hazardous building materials (HBMs), if any; recycling of valuable materials; physical demolition and removal of equipment and structures; and final clean up. The decommissioning and demolition activities would be generally similar to those described below for the decommissioning and demolition of MGS Units 1 and 2.

- **Turbine plant equipment:** The structures will be demolished to an "at-grade" condition. Subgrade infrastructure that could present a safety risk if not filled will be filled with crushed concrete derived from demolition activities. The amount of waste generated by the removal of P3 equipment would be substantially less than the removal of the MGS Units 1 and 2 structure, which includes the large boilers, steam turbines, and steam turbine pedestal.



- **Stack:** The 180-foot-tall metal stack will be demolished to an “at-grade” condition, with the core structure felled by implosion using explosive charges placed in accordance with an engineered blast plan. Subgrade infrastructure that could present a safety risk if not filled will be filled with crushed concrete derived from demolition activities. This removal method (i.e., implosion) would be similar to the removal of the MGS 200-foot-tall concrete stack, but P3 stack removal would entail significantly less waste material and less waste management compared to the staging and crushing and transportation of concrete debris associated with the MGS stack.
- **Contaminated equipment:** All chemicals and hazardous materials will be removed from the site and disposed of in appropriate facilities as part of the decommissioning process. Following decommissioning of P3, there will be some equipment and piping (such as lube oil tanks or fuel oil piping) that, although emptied of hazardous materials, may still be contaminated. This equipment will be removed and disposed of in compliance with all applicable federal, state, and local requirements. Quantities of these wastes are expected to be similar or less than the quantities associated with the demolition of MGS Units 1 and 2.
- **HBM Removal:** New infrastructure associated with P3 will not have asbestos or lead paint. However, repurposed facilities, which were originally installed during the original construction of MGS Units 1 and 2, may have asbestos and lead paint. HBM removal (potentially associated with the removal of the existing administration building and warehouse) is expected to be significantly less than the amount removed from MGS Units 1 and 2.
- **Ammonia Tank:** The existing MGS ammonia tank, which will be moved into a new secondary containment and repurposed for P3 (TN #210502, Exhibit No. 1074, Refinement to Ammonia Tank Design), will be drained and removed. Any ammonia remaining in the tank will be disposed of in appropriate facilities as part of the decommissioning process. The new secondary containment would subsequently be removed.
- **Transformers and associated equipment:** Transformers and associated electrical equipment (such as isolated-phase bus, breakers, and transmission lines) will be removed up to an interface with the Southern California Edison switchyard.
- **Repurposed Facilities:** The existing MGS facilities, including the administration building, warehouse, and tanks that will be repurposed for P3, will be demolished to an “at-grade” condition. Subgrade infrastructure that could present a safety risk if not filled will be filled with crushed concrete derived from demolition activities.
- **Demobilize demolition:** Trailers, equipment, and any remaining materials left over from demolition will be removed.
- **Remediation:** Subsurface remediation of the site is not included as part of the demolition activities to occur under the AFC. If, during demolition, obvious areas of contamination are found (such as stained soil or soil with a strong odor), samples will be taken to determine the type and potential extent of contamination. These activities will be conducted in accordance with the P3 Soil Management Plan described in Section 4.14, Waste Management, of the AFC and included as Appendix M-2 of the AFC.
- **Site Restoration:** The site will be minimally graded. Because the site is generally flat, this will not require import or export of fill. Perimeter fencing will remain to maintain the site in a safe

and secure condition. Stormwater runoff will either percolate to the subsurface or discharge to the Edison Canal. The site will be left in a condition that would allow for redevelopment by a future developer. The actual condition of the site following decommissioning and demolition of P3 will be addressed as part of compliance with COM-15, Facility Closure Planning.

- **Final “as left” acceptance:** Approval that demolition is completed will be obtained from CEC.

## 2.2 Manpower and Equipment

Estimated manpower requirements for the demolition of P3 would be less than that for the demolition of MGS Units 1 and 2. Demolition of MGS Units 1 and 2 is estimated to take 15 months; demolition of P3 and supporting structures and equipment would take approximately 7 months. Manpower loads will vary depending on the specific activities (e.g., equipment operation, truck driving, asbestos and lead abatement, dismantling of structures, health and safety monitoring, sampling, and general housekeeping). The demolition schedule and manpower requirements assume up to 10-hour days, 5 days a week, Monday through Friday. Work will be limited to 7:00 a.m. to 6:00 p.m., Mondays through Fridays. In addition to a shorter duration for P3 demolition, it is anticipated that the maximum number of onsite personnel during P3 demolition activities will be less than those required for the demolition of MGS Units 1 and 2.

For the demolition of MGS Units 1 and 2, peak truck deliveries to the site to support the demolition were anticipated to be approximately 220 tractor-trailer units during March 2022. Demolition of P3 will also require truck deliveries to transport equipment/structures and waste offsite for disposal and/or recycling. It is assumed that the number of truck deliveries associated with the demolition of P3 would be approximately the same or less at the peak of P3 demolition.

Demolition of P3 would require equipment similar to that which would be used during the demolition of MGS Units 1 and 2. The bulk of the equipment will be used during the demolition of the main structure and the stack. For the demolition of MGS Units 1 and 2, it is anticipated that a maximum of 27 pieces of equipment will be onsite during demolition activities, with an average of 19 pieces of equipment for the duration of the project. It is anticipated that the equipment will be used 5 days a week during the demolition of MGS Units 1 and 2. For P3 demolition, it is estimated that a similar or lesser amount of equipment would be used, but for a shorter duration (i.e., up to 15 months for MGS Units 1 and 2 demolition and up to 7 months for P3 demolition).

## 2.3 Schedule

Decommissioning of P3 would commence upon retirement of the unit (assumed to be December 31, 2050), and is anticipated to take approximately 6 months prior to the start of demolition. Above-grade demolition work for P3 is anticipated to take approximately 7 months following completion of decommissioning. For comparison purposes, decommissioning of MGS Units 1 and 2 is likewise anticipated to take approximately 6 months.

Milestones are as follows:

- P3 commercial online date: June 2020
- P3 end of commercial operation: Dec 2050
- Complete decommissioning of P3: 2051
- Complete demolition: 2052

## 2.4 Compliance

As discussed above, closure of P3 will be conducted in compliance with proposed COC COM-15. As presented in the CEC Staff's Final Staff Assessment (TN #214713, Exhibit No. 2001), COM-15 requires that "No less than 1 year prior to closing, or upon an order compelling permanent closure, the project owner shall submit a Final Closure Plan and Cost Estimate." The complete text of COM-15 is contained in Appendix A hereto.

## 3 Environmental Impact Analysis

The environmental impacts associated with demolition of MGS Units 1 and 2 were analyzed in Applicant's *Project Enhancement and Refinement, Demolition of Mandalay Generating Station Units 1 and 2* (TN #206698, Exhibit No. 1064). Because it is not reasonable or feasible to speculate how the environment setting would change between 2020 and 2050, analysis of the potential impacts from the demolition of P3 assumes that the environmental setting in the project area would not change significantly over that period. It is also assumed that measures similar to the COCs that have been identified to minimize the environmental effects of the MGS Units 1 and 2 demolition would also apply to the demolition of P3; and that P3 would comply with applicable laws, ordinances, regulations, and standards (LORS). The types of environmental impacts associated with the demolition of P3 would be similar to those identified for MGS Units 1 and 2, although it is expected that there would be some differences in the duration (i.e., a shorter duration for P3 demolition compared to MGS Units 1 and 2 demolition) and intensity of these impacts for some resources, as summarized in Table 1.

**Table 1  
Environmental Impacts of P3 Demolition  
Relative to Impacts of MGS Units 1 and 2 Demolition**

| <b>Resource Topic</b>          | <b>Impact Level</b> | <b>P3 Demolition Impact Summary</b>   |
|--------------------------------|---------------------|---|
| Air Quality                    | Less                | Combustion emissions and fugitive dust impacts are anticipated to be less than those for demolition of MGS Units 1 and 2, based on the shorter demolition duration. BMPs similar to those used during demolition of MGS Units 1 and 2, such as dust suppression, would be implemented.  |
| Biological Resources           | Less                | Impacts to wildlife and habitat would be similar in intensity to those from demolition of MGS Units 1 and 2 but of shorter duration, because P3 would have a shorter demolition period. Demolition of P3 would occur on developed land and there would be no demolition activities in the dunes. Similar to demolition of MGS Units 1 and 2, COCs would be implemented to minimize and avoid potential noise impacts on nesting birds.  |
| Cultural Resources             | Similar             | Similar to demolition of MGS Units 1 and 2, no below-grade ground disturbance would occur in previously undisturbed areas; therefore, it is unlikely that previously undiscovered archaeological resources would be inadvertently exposed during P3 demolition. Demolition of P3 would have no potential to impact historic architectural resources.  |
| Geologic Hazards and Resources | Similar             | Demolition of P3 would comply with appropriate geologic hazard and resource protection measures, and impacts would be similar to those from demolition of MGS Units 1 and 2.  |
| Hazardous Materials            | Similar             | During demolition of P3, hazardous materials similar to those used during the demolition of MGS Units 1 and 2 would be used and managed in accordance with applicable LORS, and in accordance with COCs. Hazardous materials, or equipment or structures that have been impacted with hazardous materials or HBMs, will be removed and disposed of in accordance with the applicable LORS. Therefore, potential impacts from the use of hazardous materials during demolition and removal of HBMs would be less than significant.   |
| Land Use                       | Similar             | Similar to demolition of MGS Units 1 and 2, demolition of P3 would not conflict with any applicable land use plan and policies, and would not have any adverse land use impacts.  |
| Noise                          | Similar             | During demolition of P3, noise impacts would be similar in intensity to noise impacts during demolition of MGS Units 1 and 2, because the types of demolition activities would be similar; impacts would be of shorter duration, because P3 would have a shorter demolition period. Demolition occupational noise exposure and noise from demolition activity staging, laydown, and parking areas would not be expected to be substantially different from what was described in the AFC and supplemental project enhancement documents. Implementation of COCs would ensure that demolition-generated noise levels will result in a less-than-significant impact on the sound environment. |
| Paleontological Resources      | Similar             | Similar to demolition of MGS Units 1 and 2, no below-grade ground disturbance would occur in previously undisturbed areas; therefore, it is unlikely that previously undiscovered paleontological resources would be inadvertently exposed during P3 demolition.  |

**Table 1  
Environmental Impacts of P3 Demolition  
Relative to Impacts of MGS Units 1 and 2 Demolition (Continued)**

| <b>Resource Topic</b> | <b>Impact Level</b> | <b>P3 Demolition Impact Summary</b>   |
|-----------------------|---------------------|---|
| Public Health         | Less                | Potential public health impacts associated with P3 demolition would be similar to those during MGS Units 1 and 2 demolition; however the duration of P3 demolition is expected to be significantly less than that of MGS Units 1 and 2.   |
| Socioeconomics        | Similar             | Impacts would be similar in nature to those identified for demolition of MGS Units 1 and 2. Because the manpower requirements would be expected to be less for the P3 demolition and the duration of the demolition period would be less, the direct employment impacts and the indirect and induced employment and economic impacts associated with the demolition of P3 are expected to be less based on the present day dollar value.  |
| Soils                 | Similar             | Demolition of P3 would comply with appropriate BMPs and stormwater pollution prevention measures; impacts would be similar to those from demolition of MGS Units 1 and 2.   |
| Traffic               | Less                | Traffic impacts would be similar in nature to those identified for demolition of MGS Units 1 and 2 but of lower intensity and duration, because the manpower requirements would be expected to be less for the P3 demolition and the duration of the demolition period would be less.   |
| Visual Resources      | Similar             | Similar to demolition of MGS Units 1 and 2, demolition of P3 would increase the overall visual quality from the key observation points identified for the project.  |
| Waste Management      | Less                | The types of wastes generated during demolition of P3 would be similar to those generated during the demolition of MGS Units 1 and 2; however, the quantity of waste generated would be expected to be significantly less. It is anticipated that P3, including the repurposed MGS buildings that would serve P3, would have significantly less HBM than MGS Units 1 and 2. At this time it is speculative to know what and where appropriate waste disposal facilities will be at the time of the P3 demolition; however, for purposes of this qualitative and comparative analysis, it is assumed that there will be appropriate disposal facilities available, similar to the assumptions for the demolition of MGS Units 1 and 2. COCs relevant to waste management would be implemented for demolition activities, and would further ensure that impacts from waste management would be less than significant. |
| Water Resources       | Less                | Similar to the demolition activities for MGS Units 1 and 2, there would be no excavation to remove foundations or subsurface piping; therefore, there would be no dewatering required during demolition. Below-grade spaces will be filled with crushed concrete to alleviate safety concerns, and to minimize potential for these spaces to act as groundwater conduits. The existing stormwater basins would be removed and/or filled in. COCs, including development of a stormwater pollution prevention plan and implementation of BMPs during demolition activities, would be implemented to further ensure that impacts to water resources would be less than significant.   |

**Table 1  
Environmental Impacts of P3 Demolition  
Relative to Impacts of MGS Units 1 and 2 Demolition (Continued)**

| Resource Topic                 | Impact Level | P3 Demolition Impact Summary  |
|--------------------------------|--------------|---|
| Water Resources<br>(Continued) |              | <p>Use of potable water and generation of wastewater would be less during demolition of P3 than during demolition of MGS Units 1 and 2, because there would be a shorter duration of demolition activities and fewer workers for P3. Assuming that the demolition duration for P3 is approximately 7 months, compared to 15 months for MGS Units 1 and 2, the estimated water usage would be approximately half of that used during demolition of MGS Units 1 and 2. Similarly, wastewater generated during the demolition of P3 is expected to be less than that for the demolition of MGS Units 1 and 2, based on shorter duration and fewer workers.</p> <p>With implementation BMPs and the relevant COC, impacts to water resources would be temporary and would not result in any significant impacts to water resources.</p> |
| Worker Safety                  | Similar      | <p>Similar to demolition of MGS Units 1 and 2, demolition of P3 would comply with California Occupational Safety and Health Administration regulations. Potential impacts due to worker exposure to hazardous materials, noise, and accidental injury would be similar for MGS Units 1 and 2 and P3; potential exposure to HBM would be less during demolition of P3 than during demolition of MGS Units 1 and 2.</p>   |

Notes:

AFC = Application for Certification  
 BMP = best management practice  
 COC = Condition of Certification  
 HBM = hazardous building materials  
 LORS = laws, ordinances, regulations, and standards  
 MGS = Mandalay Generating Station  
 P3 = Puente Power Project

## **APPENDIX A**

### **CONDITION OF CERTIFICATION COM-15**

## APPENDIX A CONDITION OF CERTIFICATION COM-15

COM-15: Facility Closure Planning. To ensure that a facility's eventual permanent closure and maintenance do not pose a threat to public health and safety and/or to environmental quality, the project owner shall coordinate with the Energy Commission to plan and prepare for eventual permanent closure.

### Final Closure Plan and Cost Estimate

- (a) No less than one 1 year (or other CPM-approved date) prior to initiating a permanent facility closure, or upon an order compelling permanent closure, the project owner shall submit for Energy Commission review and approval, a Final Closure Plan and Cost Estimate, which includes any site maintenance and monitoring.

Prior to submittal of the facility's Final Closure Plan to the Energy Commission, the project owner and the CPM will hold a meeting to discuss the specific contents of the plan. In the event that significant issues are associated with the plan's approval, the CPM will hold 1 one or more workshops and/or the Energy Commission may hold public hearings as part of its approval procedure.

- (b.) Final Closure Plan and Cost Estimate contents include, but are not limited to:

1. a statement of specific Final Closure Plan objectives;
2. a statement of qualifications and resumes of the technical experts proposed to conduct the closure activities, with detailed descriptions of previous power plant closure experience;
3. identification of any facility-related installations or maintenance agreements not part of the Energy Commission certification, designation of who is responsible for these, and an explanation of what will be done with them after closure;
4. a comprehensive scope of work and itemized budget for permanent plant closure and site maintenance activities, with a description and explanation of methods to be used, broken down by phases, including, but not limited to:
  - a. dismantling and demolition;
  - b. recycling and site clean-up;
  - c. impact mitigation and monitoring;
  - d. site remediation and/or restoration;
  - e. exterior maintenance, including paint, landscaping and fencing;
  - f. site security and lighting; and
  - g. any contingencies.
5. a final cost estimate for all closure activities, by phases, including site monitoring and maintenance costs, and long-term equipment replacement;
6. a schedule projecting all phases of closure activities for the power plant site and all appurtenances constructed as part of the Energy Commission-certified project;
7. an electronic submittal package of all relevant plans, drawings, risk assessments, and maintenance schedules and/or reports, including an above and below-ground infrastructure inventory map and registered engineer's or DCBO's assessment of demolishing the facility;



additionally, for any facility that permanently ceased operation prior to submitting a Final Closure Plan and Cost Estimate and for which only minimal or no maintenance has been done since, a comprehensive condition report focused on identifying potential hazards;

8. all information additionally required by the facility's conditions of certification applicable to plant closure;
9. an equipment disposition plan, including:
  - a. recycling and disposal methods for equipment and materials; and
  - b. identification and justification for any equipment and materials that will remain on-site after closure.
10. a site disposition plan, including but not limited to:
  - a. proposed rehabilitation, restoration, and/or remediation procedures, as required by the conditions of certification and applicable LORS, and site maintenance activities.
11. identification and assessment of all potential direct, indirect, and cumulative impacts and proposal of mitigation measures to reduce significant adverse impacts to a less-than-significant level. Potential impacts to be considered shall include, but not be limited to:
  - a. traffic;
  - b. noise and vibration;
  - c. soil erosion;
  - d. air quality degradation;
  - e. solid waste;
  - f. hazardous materials;
  - g. waste water discharges; and
  - h. contaminated soil.
12. identification of all current conditions of certification, LORS, federal, state, regional, and local planning efforts applicable to the facility, and proposed strategies for achieving and maintaining compliance during closure;
13. updated mailing list and Listserv of all responsible agencies, potentially interested parties, and property owners within 1 one mile of the facility;
14. identification of alternatives to plant closure and assessment of the feasibility and environmental impacts of these; and
15. description of and schedule for security measures and safe shutdown of all noncritical equipment and removal of hazardous materials and waste (see conditions of certification Public Health, Waste Management, Hazardous Materials Management and Worker Safety).

If the Energy Commission-approved Final Closure Plan and Cost Estimate procedure are not initiated within one year of the plan approval date, it shall be updated and resubmitted to the Energy Commission for supplementary review and approval. If a project owner initiates but then suspends closure activities, and the suspension continues for longer than one year, the Energy Commission may initiate correction actions against the project owner to complete facility closure. The project owner remains liable for all costs of contingency planning and closure.