

# Memorandum

Date : October 10, 2002  
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 ATSS

To : William J. Keese, Chairman and Presiding Member  
 Robert Pernell, Commissioner and Associate Member

From : California Energy Commission - Cheri Davis  
 1516 Ninth Street Energy Commission Project Manager  
 Sacramento, CA 95814-5512

Subject : **EAST ALTAMONT ENERGY CENTER  
 STAFF STATUS REPORT ON WORKSHOPS AND ERRATA TO THE FINAL STAFF  
 ASSESSMENT / ENVIRONMENTAL ASSESSMENT**

At the direction of the East Altamont Energy Center Committee, staff held workshops with the objective of narrowing down the number of technical areas in dispute between staff, the applicant, and any parties. These workshops took place October 4, 7, and 8, 2002. Staff and Applicant used these workshops to develop mutually agreeable changes to the conditions of certification, where possible. Thus, even for those technical areas that remain contentious, there should be fewer conditions in dispute at the hearings.

Representatives from Byron Bethany Irrigation District contributed to the discussion on water issues at the workshop on October 4. Intervenor Bob Sarvey and a representative from the San Joaquin Valley Air Pollution Control District attended the workshop on October 8. While both contributed to the general discussion on air quality issues, neither offered specific changes for conditions of certification. There were also several members of the public in attendance at these workshops that asked questions primarily relating to air quality and hazardous materials.

The table below provides an update on the status of topics discussed at these workshops. Staff's second set of errata to the Final Staff Assessment (FSA) / Environmental Assessment (EA) most of which was developed during the workshops, is attached.

Topic Discussed At Workshop	Status
<b>Environmental Assessment</b>	
Air Quality	While the discussion resulted in some mutually agreeable changes to staff's proposed conditions of certification relating to construction, the topic remains in dispute.

<b>Topic Discussed At Workshop</b>	<b>Status</b>
Biological Resources	While the applicant has not had the opportunity to view final edits to conditions, staff believes that the applicant's concerns have been addressed with staff's proposed changes (attached).
Cultural Resources	While the applicant has not had the opportunity to view final edits to conditions, staff believes that the applicant's concerns have been addressed with staff's proposed changes (attached).
Hazardous Materials	While the applicant has not had the opportunity to view final edits to conditions, staff believes that the applicant's concerns have been addressed with staff's proposed changes (attached).
Noise and Vibration	While the discussion resulted in some mutually agreeable changes to staff's proposed conditions of certification, the topic will likely remains in dispute.
Socioeconomics	Staff agreed to make edits requested by the applicant.
Traffic and Transportation	While the applicant has not had the opportunity to view final edits to conditions, staff believes that the applicant's concerns have been addressed with staff's proposed changes (attached).
Visible Plumes	Staff and applicant are still working on the development of mutually agreeable conditions of certification. If resolution is not reached, the Applicant has stated its intent to contest staff's analysis at the hearings.
Visual Resources	While the discussion resulted in some mutually agreeable changes to staff's proposed conditions of certification, the topic remains in dispute.
Water and Soil Resources	While the discussion resulted in some mutually agreeable changes to staff's proposed conditions of certification, the topic remains in dispute.
Worker Safety	Staff agreed to the applicant's proposed edits.
<b>Engineering Assessment</b>	
Facility Design	The applicant agreed to accept staff's proposed conditions of certification. Thus, no errata were needed.
Geological and Paleontological Resources	While the applicant has not had the opportunity to view final edits to conditions, staff believes that the applicant's concerns have been addressed with staff's proposed changes (attached).

Enclosure  
cc: East Altamont Proof of Service  
Agency List

## AIR QUALITY

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At the October 8, 2002 workshop, Staff agreed to provide the following in its errata to the FSA/EA:

1. A cumulative impact analysis that includes the East Altamont Energy Center (EAEC), the Tesla Power Project, the Tracy Peaker, the Tracy Biomass plant, the Owens Brockway facility, and the Tracy Hills, South Schulte, and Mountain House developments.
2. Simplified Conditions of Certification for facility construction.
3. A protocol to include the recent EAEC Air Quality Mitigation Settlement Agreement with the San Joaquin Valley Air Pollution Control District.

These items are provided below.

### CUMULATIVE IMPACT ANALYSIS

Staff performed a PM10 cumulative impact analysis, which includes all the above listed sources and their emissions, for two plausible scenarios. Mobile source emissions were included for the Mountain House development only. The first scenario assumes that the construction of the Mountain House community would be concurrent with normal operation of the EAEC and other above-listed facilities. The second scenario assumes that the construction of the Mountain House community is complete, and its emissions include only daily residential activities' emissions and mobile source emissions. The emissions from the Mountain House community were taken from the Environmental Impact Report prepared for the Mountain House development project in 1994.

The results of staff's analysis are illustrated in the attached Air Quality Figures 1 and 2. These figures are the plots of the area that are impacted by the construction and operation of the EAEC, Tesla, Tracy Peaker, Tracy Biomass, and Owen Brockway facilities, and the Mountain House, Tracy Hills, and South Schulte community developments.

In Air Quality Figure 1, the area immediately east and southeast of EAEC facility would be impacted by PM10 as high as  $32 \mu\text{g}/\text{m}^3$ , if the construction of the Mountain House community were to coincide with the normal operation of the EAEC facility. The Mountain House School, which is immediately south of the EAEC, would be impacted by PM10 levels of approximately 19 to  $22 \mu\text{g}/\text{m}^3$ . The town of Tracy would be impacted by 4 to  $8 \mu\text{g}/\text{m}^3$  of PM10.

In Air Quality Figure 2, the area immediately east and southeast of the EAEC facility would be impacted by PM10 as high as  $8 \mu\text{g}/\text{m}^3$ , assuming normal operation of the EAEC and the Mountain House community is fully built. The Mountain House School would be impacted by  $5 \mu\text{g}/\text{m}^3$  of PM10, and the town of Tracy would be impacted by about  $2 \mu\text{g}/\text{m}^3$ .

The results of the above cumulative impact analysis support staff's original conclusion in the Final Staff Assessment (FSA) that the project, along with other developments, would

contribute to a significant impact to the air quality violations in the area. As stated in the FSA, the project's potential impacts to the area would be mitigated to a level of less than significant with the implementation of staff's proposed mitigation measures to secure emissions reductions locally equivalent to 175 tons per year of NOx and VOC, as ozone precursors, and 50 ton per year of PM10.

## **EAEC PROPOSED AIR QUALITY CONDITIONS OF CERTIFICATION**

The following replace conditions AQ-SC1 through AQ-SC4 from the FSA/EA.

**AQ-SC1.** The project owner shall fund all expenses for an on-site air quality construction mitigation manager (AQCMM) who shall be responsible for maintaining compliance with conditions AQ-SC2 through AQ-SC4 for the entire project site and linear facility construction. The on-site AQCMM shall have full access to areas of construction of the project site and linear facilities, and shall have the authority to appeal to the CPM to have the CPM stop any or all construction activities as warranted by applicable construction mitigation conditions. The on-site AQCMM shall have a current certification by the California Air Resources Board for Visible Emission Evaluation prior to the commencement of ground disturbance. The on-site AQCMM shall not be terminated without written consent of CPM.

**Verification:** At least sixty (60) days prior to the start of ground disturbance, the project owner shall submit to the CPM, for approval, the name, current ARB Visible Emission Evaluation certificate, and contact information for the on-site AQCMM.

**AQ-SC2.** The project owner shall provide a construction mitigation plan, for approval, which shows the steps that will be taken, and reporting requirements, to ensure compliance with conditions AQ-SC3 and AQ-SC4.

**Verification:** At least sixty (60) days prior to start any ground disturbance, the project owner shall submit to the CPM, for approval, the construction mitigation plan. The CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt. Otherwise, the plan shall be deemed approved.

**AQ-SC3.** The on-site AQCMM shall submit to the CPM, in the monthly compliance report, a construction mitigation report that demonstrates compliance with the following mitigation measures:

- a) All unpaved roads and disturbed areas in the project and linear construction sites shall be watered until sufficiently wet for every four hour of construction activities. The frequency of watering can be reduced or eliminated during periods of precipitation.
- b) No vehicle shall exceed 10 miles per hour within the construction site.
- c) The construction site entrances shall be posted with visible speed limit signs.
- d) All vehicle tires shall be washed or cleaned free of dirt prior to entering paved roadways.

- e) Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.
- f) All entrances to the construction site shall be treated with dust soil stabilization compounds.
- g) No construction vehicles can enter the construction site unless through the treated entrance roadways.
- h) Construction areas adjacent to any paved roadway shall be provided with sandbags to prevent run-off to the roadway.
- i) All paved roads within the construction site shall be swept twice daily.
- j) At least the first 500 feet of any public roadway exiting from the construction site shall be swept twice daily.
- k) All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or be treated with appropriate dust suppressant compounds.
- l) All vehicles that are used to transport solid bulk material and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard.
- m) All construction areas that may be disturbed shall be equipped with windbreaks at the windward sides prior to any ground disturbance. The windbreaks shall remain in place until the soil is stabilized or permanently covered with vegetation.
- n) Any construction activities that can cause fugitive dust shall cease when the wind exceeds 15 miles per hour.
- o) All diesel-fueled engines used in the construction of the facility shall be fueled only with ultra-low sulfur diesel, which contains no more than 15 ppm sulfur.
- p) All large construction diesel engines, which have a rating of 100 hp or more, shall meet, at a minimum, the 1996 ARB or EPA certified standards for off-road equipment.
- q) All large construction diesel engines, which have a rating of 100 hp or more, shall be equipped with catalyzed diesel particulate filters (soot filters), unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types.
- r) All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM that shows the engine meets the conditions AQ-SC3(p) and AQ-SC3(q) above.

**Verification:** In the MCR, the project owner shall provide the CPM a copy of the construction mitigation report and any diesel fuel purchased records, which clearly demonstrates compliance with condition AQ-SC3.

**AQ-SC4.** No construction activities are allowed to cause visible emissions at or beyond the project site fenced property boundary. No construction activities are allowed to cause visible plumes that exceed 20 percent opacity at any location on the construction site. No construction activities are allowed to cause any visible

plume in excess of 200 feet beyond the centerline of the construction of linear facilities.

**Verification:** The on-site AQCMM shall conduct a visible emission evaluation at the construction site fence line, or 200 feet from the center of construction activities at the linear facility, each time he/she sees excessive fugitive dust from the construction or linear facility site. The records of the visible emission evaluations shall be maintained at the construction site and shall be provided to the CPM on the monthly construction report.

## **CONSIDERATION OF THE EAEC, SJVAPCD AQ SETTLEMENT**

At about the same time of publication of the EAEC FSA/EA, the SJVAPCD Board approved the "East Altamont Energy Center Air Quality Mitigation Settlement Agreement" (attached). In that agreement, the applicant agrees to provide approximately one million dollars to the SJVAPCD to establish programs to create emission reductions to benefit the San Joaquin Valley. Priority will be given to programs that would result in emission reductions that could benefit the northern San Joaquin Valley.

Staff believes that the emission reductions from the programs funded by the settlement can be incorporated into the recommendations outlined in staff's Condition of Certification **AQ-SC5**. Staff will recalculate the emission reductions from the yet-to-be implemented mitigation measures that are applicable to San Joaquin County, and count those emission reductions toward the total emission reductions required in condition **AQ-SC5**.

## **BIOLOGICAL RESOURCES**

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### **Page 5.2-42, BIO-1, Verification**

Staff has agreed to add language that would provide for the selection of an emergency replacement for the Designated Biologist to the end of the verification for BIO-1, as follows:

Should emergency replacement of the designated specialist become necessary, the project owner shall immediately notify the CPM to discuss the qualifications of the proposed replacement specialist.

### **Page 5.2-43, BIO-2**

The following changes to BIO-2 are in response to the applicant's suggestions:

**BIO-2** The project owner shall ensure that the Designated Biologist shall ~~perform~~performs the following during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, and closure activities. These duties also pertain to the Biological Monitors.

1. Advise the project owner's Construction/Operation Manager, supervising construction and operations engineer on the implementation of the biological resources Conditions of Certification;
2. Be available to supervise trained and approved Biological Monitors, supervise or conduct mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as wetlands and special status species or their habitat;
3. The Designated Biologist and Biological Monitors shall be thoroughly familiar with the Biological Conditions of Certification and the BRMIMP;
4. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
5. Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (parking lots) for animals in harms way;
6. Notify the project owner and the CPM of any non-compliance with any biological resources Condition of Certification; and
7. Respond directly to inquiries of the CPM regarding biological resource issues.

**Verification:** The project owner shall ensure that the Designated Biologist shall ~~maintain~~ maintains written records of the tasks described above, and summaries of these records shall be submitted in the Monthly Compliance Reports. Qualified Biological monitors shall be approved by the CPM and training shall be verified according to procedures established in the BRMIMP including familiarity with the Conditions of Certification. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report.

**Pages 5.2-43 and 5.2-44, BIO-3**

The following changes to BIO-3 are in response to the applicant's suggestions:

**BIO-3** The project owner's Construction/Operation Manager shall act on the advice of the Designated Biologist and Biological Monitors to ensure conformance with the biological resources Conditions of Certification.

Protocol: If required by the Designated Biologist or Biological Monitors, the project owner's Construction and Operation Manager shall halt all site mobilization, ground disturbance, grading, construction, and operation activities in areas specified by the Designated Biologist.

The Designated Biologist and Biological Monitors shall:

1. Require a halt to all activities in any area when determined that there would be adverse impact to sensitive biological resources if the activities continued;
2. Inform the project owner and the Construction/Operation Manager when to resume activities; and
3. Notify the CPM if there is a halt of any activities, and advise the CPM of any corrective actions that have been taken, or will be instituted, as a result of the halt.

**Verification:** The project owner shall ensure that the Designated Biologist and/or Biological Monitors must notify notifies the CPM immediately (and no later than the following morning of the incident, or Monday morning in the case of a weekend) of any non-compliance or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities.–The project owner shall notify the CPM of the circumstances and actions being taken to resolve the problem.

Whenever corrective action is taken by the project owner, a determination of success or failure will be made by the CPM within five working days after receipt of notice that corrective action is completed, or the project owner will be notified by the CPM that coordination with other agencies will require additional time before a determination can be made.

**Page 5.2-44, BIO-4**

At the applicant’s request, staff has agreed to allow for Worker Environmental Awareness Training using a video. Add the following sentence at the end of the first paragraph:

The training may be presented in the form of a video.

**Page 5.2-45, BIO-5, Verification**

To address the applicant’s request for clarifying language, insert the following sentence at the end of the last paragraph:

If there are any permits that have not yet been received when the BRMIMP is first submitted, these permits shall be submitted to the CPM, CDFG, and USFWS as addendum to the BRMIMP within 10 days of their receipt.

**Page 5.2-49, BIO-11**

Because there is no potential for fish entrainment associated with this project, staff agrees to delete item #2 under the Protocol for BIO-11, as shown below:

Protocol: Measures that shall be implemented as appropriate include:

1. Design transmission line poles, access roads, pulling sites, and storage and parking areas to avoid identified sensitive resources;
2. ~~Screen the water intake pipes that use natural waterways in a manner to avoid entrainment; ...~~

## Pages 5.2-49 through 5.2-51, BIO-12

Staff agreed to the following changes to BIO-12 to address the applicant's concerns:

**BIO-12** The project owner shall manage their construction site, and related facilities, in a manner to avoid or minimize impacts to the local biological resources.

The project owner shall comply with the following measures:

### Biological Mitigation Measures Proposed by Staff:

1. Appropriate avoidance and minimization measures shall be in place before site mobilization of a particular area, or activity that may impact sensitive biological resources;
2. Conduct pre-construction surveys for special status plant and animals according to USFWS, and CDFG ~~protocols~~ survey requirements and recommendations, and in consultation with the CEC and Western. The Applicant has explicitly listed some surveys, that are listed below and detailed in the text of the FSA. The timing and duration of the surveys shall be reviewed, agreed upon and provided in the BRMIMP;
3. Clearly mark construction area boundaries with stakes, flagging, silt fencing, and/or rope or cord to minimize inadvertent degradation or loss of adjacent habitat during facility construction/modernization;
4. All equipment storage shall be restricted to designated construction zones or areas that are currently not habitat for special status species;
5. Traffic is restricted to existing roads, designated access roads, construction storage and staging areas, and parking areas;
6. ~~Daytime~~ Restrict construction within all drainages, excluding Horizontal Directional Drilling (HDD) construction at all drainages and drains to method, to daylight hours in order to avoid impacts to special status reptiles, amphibians, and mammals;
7. There shall be temporary fencing and wildlife escape ramps for construction areas that contain steep walled holes, or trenches if outside of an approved, permanent exclusionary fence. The temporary fence shall be hardware cloth or similar materials that are approved by USFWS and CDFG;
8. Open trenches in active construction areas shall be inspected for wildlife each morning prior to start of daily construction activities. Inspect Within active construction areas, inspect all construction pipes, culverts, or similar structures with a diameter of 4-inches or greater for sensitive species (such as kit foxes) prior to pipe burial. Any wildlife observed shall be allowed to escape on its own if possible prior to commencement of construction. Otherwise, the Designated Biologist shall contact the appropriate agency for assistance;

9. To prevent entrapment of listed species, or other animals during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall either be covered at the close of each working day by plywood or provided with one or more escape ramps (3:1) constructed of earth fill or wooden planks. For all open trenches, an escape ramp shall be constructed at a minimum of every 0.25-mile;
10. Setbacks and buffers shall be established for the protection of special-status wildlife species. Distances shall be determined through consultation with the USFWS and CDFG prior to construction;
11. Pipes to be left in trenches overnight shall be capped;
12. Use of rodenticides shall be according to USDA label standards on-site, at the construction laydown area, and along linears. Use of rodenticides that are enclosed or otherwise protect kit fox, birds of prey, and other non-target species from becoming inadvertently poisoned;
13. Report all inadvertent deaths of sensitive species to the appropriate project representative. Injured animals shall be reported to CDFG, and the Project Owner shall follow instructions that are provided by CDFG;
14. ~~Revegetate and maintain~~ Successfully revegetate all linears, construction, staging, temporary parking, and equipment storage areas with CPM-approved plant species;
15. Implement pre-construction surveys for raptor nests and all sensitive and special status species of animals and plants that are potentially on the project site, along linears, and at the construction laydown area within 14 days prior to commencement of any construction activities. The timing of surveys shall be based upon the season in which the construction activities are to occur; and
16. Implement a monitoring program for avian electrocution and collisions for 12 months to determine if mitigation, such as the installation of bird-flight diverters, is necessary. The monitoring plan shall be included in the BRMIMP and developed in consultation with the USFWS, Western, and CDFG.

### **Specific Mitigation Measures Proposed by the Applicant**

17. Implement pre-construction surveys for big tarplant;
18. Implement nest surveys for Swainson's hawk within ½ mile of project features to determine use by Swainson's hawk. If project features are within ½ mile of Swainson's hawk nesting, avoid construction within ½ mile during nesting season if feasible. If construction cannot avoid active nests by ½ mile, an incidental take agreement (CDFG Section 2080.1) shall be obtained;
19. Implement pre-construction surveys for burrowing owl on the EAEC site, along linears, and the construction laydown area, followed by avoidance or passive relocation (per 1993 California Burrowing Owl Consortium Guidelines), if owls are observed;

20. Perform surveys at the appropriate time of year to identify locations of potential California Horned Lark nests within 100 feet of project features. Construction shall be avoided in the vicinity of nests;
21. Implement pre-construction surveys for tricolored blackbird within 100 feet of project features and avoid construction in the vicinity of nests;
22. Conduct pre-construction surveys for California red-legged frog and California tiger salamander and implement mitigation measures to avoid impacts to habitats for these species;
23. For San Joaquin kit fox: Obtain and comply with the conditions of a section 7 authorization for incidental take of this species. Conduct pre-design surveys for all areas potentially affected by the project. Set and enforce speed limits in the construction area at 20 miles per hour or less;
24. Implement the pre-construction surveys for San Joaquin kit fox, and construction practices and mitigation measures as outlined in *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 1999);
25. Provide safety lighting that points downward on the HRSG stacks to reduce avian collisions; and
26. ~~Lease the 134 acres of land surrounding the EAEC for use in wildlife-friendly agriculture (per USFWS and CDFG guidelines); and~~
27. Implement a red fox control program.

**Verification:** All mitigation measures and their implementation methods shall be included in the BRMIMP. The Project Owner shall provide a post-construction compliance report, within 30 calendar days of completion of the project, to the Energy Commission CPM.

### **Page 5.2-53, BIO-15, Verification**

The following change clarifies that this condition relates to linear facilities:

**Verification:** At least 45 days prior to the start of any ~~site or related facilities~~ mobilization activities related to the linear projects, the project owner shall submit to the CPM a copy of the Wetland Assessment, or a letter from Western stating that the Wetland Assessment is not necessary.

## **CULTURAL RESOURCES**

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### **Pages 5.3-26 through 5.3-28**

The applicant requested that language be added to CUL-1 to address emergency situations where the CRS would not be available to implement the cultural conditions of certification. Staff added language to allow pre-approval of several alternate CRSs who could assume the duties, if necessary. With the applicant's concurrence staff is replacing CUL-1 in its entirety with the following:

**CUL-1** Prior to the start of ground disturbance, the project owner shall submit the resume of the proposed Cultural Resources Specialist (CRS), and one alternate CRS, if an alternate is proposed, to the CPM for review and approval. The CRS shall be responsible for implementation of all cultural resources conditions of certification and may obtain qualified cultural resource monitors (CRMs) to monitor as necessary on the project. If the project owner desires, resumes for additional alternate CRSs may be submitted to the CPM for review and approval. If the alternates meet the criteria of CUL-1, they will be pre-approved and kept on file with the CPM for use in the event that the current CRS and alternate are unable to fulfil their responsibilities. The project owner shall notify the CPM if they elect to replace the CRS or alternate and shall provide the reason the CRS and alternate can not fulfill their responsibilities.

1. The resume for the CRS and alternate, shall include information that demonstrates that the minimum qualifications specified in the U.S. Secretary of Interior Guidelines, as published by the Code of Federal Regulations, Title 36, section 61 (2000) are met. In addition, the CRS shall have the following qualifications:
  - a) The technical specialty of the CRS shall be appropriate to the needs of the project and shall include, a background in anthropology, archaeology, history, architectural history or a related field; and
  - b) At least three years of archaeological or historic, as appropriate, resource mitigation and field experience in California.
2. The resume shall include the names and phone numbers of contacts familiar with the work of the CRS on referenced projects and demonstrate that the CRS has the appropriate education and experience to accomplish the cultural resource tasks that must be addressed during ground disturbance, grading, construction and operation. In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the CPM, that the proposed CRS or alternate has the appropriate training and background to effectively implement the conditions of certification.
3. CRMs shall meet the following qualifications:
  - a) A BS or BA degree in anthropology, archaeology, historic archaeology or a related field and one year experience monitoring in California; or
  - b) An AS or AA in anthropology, archaeology, historic archaeology or a related field and four years experience monitoring in California; or
  - c) Enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historic archaeology or a related field and two years of monitoring experience in California.
4. The project owner shall ensure:
  - a) that the CRS fulfills all the requirements of these conditions of certification;
  - b) that the CRS obtains technical specialists, and CRMs, if needed;

- c) that the CRS manages all monitoring, mitigation and curation activities; and
- d) that the CRS evaluates any cultural resources that are newly discovered or that may be affected in an unanticipated manner for eligibility to the California Register of Historic Resources (CRHR).

**Verification:**

1. The project owner shall submit the resume for the CRS and alternate CRS at least 60 days prior to the start of ground disturbance. Resumes for additional alternates may be submitted at least 10 days prior to accepting responsibilities. In the event an additional alternate is selected, the project owner shall notify the CPM within 24 hours by telephone or e-mail.
2. At least 10 days prior to a termination or release of the CRS, the project owner shall submit the resume of the proposed new CRS.
3. At least 20 days prior to ground disturbance, the CRS shall submit written notification identifying anticipated CRMs for the project stating they meet the minimum qualifications required by this condition. If additional CRMs are needed later, the CRS shall submit written notice one week prior to any new CRMs beginning work.
4. At least 10 days, prior to the start of ground disturbance, the project owner shall confirm in writing to the CPM that the approved CRS will be available for onsite work and is prepared to implement the cultural resources conditions of certification.

**Page 5.3-29 CUL-2, Verification, first sentence**

The applicant requested that the time frame for submitting initial maps and drawing be reduced from 75 to 45 days. Staff agrees to reduce the time requirement, and makes the following change:

At least ~~75~~45 days prior to the start of ground disturbance, the project owner shall provide the designated CRS and the CPM with the maps and drawings.

**Page 5.3-30 CUL-3, Verification, first sentence**

Since staff reduced the time frame for CUL-2 and since limited monitoring is required for this project, staff suggests that the time frame for CUL-3 also be reduced from 60 to 30 days, as follows:

At least ~~60~~30 days prior to the start of ground disturbance, the project owner shall provide the CRMMP, prepared by the CRS, to the CPM for review and written approval.

**Page 5.3-31 CUL-5, Verification, 4<sup>th</sup> line**

The applicant requested that the condition be changed to reflect notification by the project owner rather than by the CRS. Staff suggested that both the CRS and project owner notify the CPM. The applicant agreed with this language, which is as follows:

...the CRS and project owner will notify the CPM within 24 hours after a find.

**Page 5.3-32 CUL-6, 3<sup>rd</sup> paragraph on the page, 1<sup>st</sup> sentence**

Staff also agreed with the applicant to allow e-mail as a legitimate means to notify the CMP, as follows:

~~The CRS shall notify the project owner and the CPM, by telephone. The CRS and project owner shall notify the CPM, by telephone or e-mail of any incidents of non-compliance with the cultural resources conditions of certification within 24 hours of becoming aware of the situation.~~

**Page 5.3-33 CUL-6, Verification, 3<sup>rd</sup> paragraph, 1<sup>st</sup> sentence**

For consistency with the language change to the condition, staff makes the following change to the verification:

Within 24 hours of recognition of a non-compliance issue, the CRS and the project owner shall notify the CPM by telephone or e-mail of the problem.

**Page 5.3-33 CUL-6, Verification, 5<sup>th</sup> paragraph, 3<sup>rd</sup> sentence.**

An ethnography with local Native American groups will be conducted. Staff agreed to allow the applicant to submit the ethnography nine months after initial ground disturbance, as follows:

No later than ~~90 days~~ 9 months after the initial ground disturbance, a copy of the completed ethnography shall be provided to Western and the CPM for review and approval.

## HAZARDOUS MATERIALS

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**Page 5.4-22, HAZ-4, 2<sup>nd</sup> sentence**

Staff has agreed to the following changes:

In either case, a secondary containment basin, capable of holding ~~150% of the storage volume shall protect the storage tank~~ the storage volume of the largest tank plus the volume associated with 24 hours of rain assuming the 25-year storm if exposed to rainfall, shall protect the ammonia storage tanks.

**Page 5.4-22, HAZ-5**

Staff has agreed to the following changes:

**HAZ-5** The project owner shall ensure that no combustible or flammable material is stored within ~~400~~ 50 feet of the sulfuric acid tank.

**Verification:** At least sixty (60) days prior to receipt of sulfuric acid on-site, the Project Owner shall provide copies of the facility design drawings showing the location of the sulfuric acid storage tank and the locations ~~where of any tanks, drums, or piping containing any combustible or flammable materials will be stored~~ and the route by which such materials will be transported through the facility.

## Page 5.4-23, HAZ-11, Verification

Staff has agreed to the following changes:

At least sixty (60) days prior to receipt of hydrogen gas on-site, the Project Owner shall provide copies of the facility design drawings showing the location of the hydrogen gas storage tank and the locations where of any tanks, drums, or piping containing any combustible or flammable materials will be stored and the route by which such materials will be transported through the facility.

## LAND USE

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The following are errata identified by staff:

### Page 5.5-6, Mountain House Master Plan, line 8:

The Mountain House community is located approximately ~~8~~1 miles to the north of the proposed site...

### Page 5.5-19 conclusion #3, 2<sup>nd</sup> sentence:

The communities of Byron in Contra Costa County and Mountain House in San Joaquin County are approximately 3 miles and 1 mile away from the subject property, respectively.

### Page 5.5-19 conclusion # 5, 1<sup>st</sup> sentence:

With mitigation, operation of the project would not cause any significant noise, dust, public health, traffic, ~~or visual impacts~~ to nearby land uses...

## NOISE AND VIBRATION

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### Page 5.6-12, 1<sup>st</sup> full paragraph and Table 5

Staff is making the following changes in response to a suggestion by the applicant:

**NOISE: Table 5** lists the predicted project noise levels at the nearest receptors in terms of the background noise level (L<sub>90</sub>). The October noise level measurement data were used to represent summer conditions for sites 1 and 2. For sites 3 and 4, the short-term measurements taken in winter were increased by 3 dB to approximate summer conditions, based on the assumption that the relationship at these sites would vary seasonally as at site 1 (see NOISE Table 3, above). The predicted noise levels take into account the applicant's proposed standard noise abatement design measures listed above (EAEC 2002a).

**NOISE: Table 5 – Summary of Predicted Operational Noise Levels**

Receptor Sites	Nighttime L <sub>90</sub> , dBA			
	Summer Ambient	Project	Cumulative	Change
1	34	45	45	+11
2	39	42	44	+5
3	<del>30</del> <del>32</del> <u>35</u>	43	43	<del>+11 to +13</del> <u>+9</u>
4	<del>32</del> <del>33</del> <u>36</u>	<del>38</del>	<del>39</del>	<del>+6 to +7</del> <u>+4</u>

**Page 5.6-13, last paragraph, beginning with 3<sup>rd</sup> sentence**

The following corrections are needed for consistency with revised Table 5:

If constructed as proposed, the project's noise level at the nearest sensitive receptors would represent an increase of up to ~~43~~42 dBA over the nighttime ambient background noise levels. Such an increases in background noise levels would be clearly noticeable, profoundly altering the noise regime in the project vicinity.

**Page 5.6-14, beginning with 1<sup>st</sup> paragraph**

The following corrections are needed for consistency with revised Table 5:

The proposed Condition of Certification **NOISE-6** would require that the noise level produced by the plant operation not exceed ~~39~~from 38 to 42 dBA  $L_{eq}$  at any the affected residences. This would ensure that the cumulative nighttime background noise level ( $L_{90}$ ) at any affected residential receptor would not increase by more than 85 dBA under summer weather conditions, and that noise due to the plant operations would not exceed the standards of the Alameda County Community Noise Ordinance (45 dBA nighttime) at any sensitive receptor. The resulting change in ambient noise levels of 85 dBA would be noticeable, but not necessarily annoying in and of itself. ~~Based upon the applicant's noise level predictions, power plant noise levels would be lower than 39 dBA at all other receivers due to their greater distances from the project site.~~

Specifically, implementation of the proposed Condition of Certification **NOISE-6** would result in the noise levels shown in **NOISE: Table 6**.

The applicant has reportedly obtained an option on the property described as the Franco residence, which is the residence nearest the project site (Site 1). Upon exercise of this option after licensing of the project, the residential structure would be removed from residential use for the life of the project. If the owner were to sell the parcel of land, the former residence would be demolished. **NOISE: Table 6** was prepared with the assumption that the residence at Site 1 would no longer be used as a residence, and that the most-affected residence would be at Site 2. If the applicant were to fail to remove the residence at Site 1 from residential use, it would be necessary to achieve the a noise standard of 39 dBA at Site 1, ~~and the predicted plant noise levels at Sites 2, 3 and 4 would be further reduced by about 1 dBA.~~ Proposed Condition of Certification **NOISE-9** requires that the Franco residence be removed from residential use for the life of the project.

A letter from Mr. And Mrs. Costa, the owners of the home at Site 2, was docketed on October 3, 2002. That letter indicated the Costa's acceptance of an offer by the applicant to provide sound insulation for their home.

**NOISE: Table 6 - Conditioned Plant Operational Noise Levels and Resulting Ambient Noise Levels**

Site	Noise Level dBA			
	4-Hour Background Noise Level	Permitted Plant Noise Level	Cumulative	Resulting Increase in Ambient Noise Levels
2	39	<del>38*</del> 42	42 44	+3 +5
3	<del>32</del> 35	39	40	+8 +5
4	<del>33</del> 36	<del>34*</del> 38	<del>36</del> 40	+3 +4

Energy Commission staff believes that achieving an operational noise limit of ~~39~~38 to ~~42~~ dBA (and a cumulative noise level of 40 to 44 dBA) at any residence as required by **NOISE-6** will ensure that noise impacts will be less than significant. Staff recognizes that the resulting cumulative noise levels would be considered quiet, and notes that the proposed noise limit is intended to ensure that the noise from the power plant would not constitute an annoyance to a reasonable person accustomed to the pre-project noise environment. Application of an operational noise limit of 39 dBA is consistent with the recommendations of the California Model Community Noise Control Ordinance for rural environments, and the resulting cumulative noise levels are consistent with industrial noise standards commonly applied in European countries (Gottlob, 1995).

**Page 5.6-24, Condition of Certification NOISE-6**

To account for the potential that the residents at monitoring location #3 – the closest and most affected sensitive receptor – may agree to have the applicant move their home farther from the plant (and, in fact, outside the 40dBA isopleth as shown on NOISE: Figure 1), staff proposes changes to NOISE-6 as follows:

**NOISE-6** The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the noise level produced by operation of the project will not exceed ~~an the~~ hourly average exterior noise levels of ~~more than 39 dBA L<sub>eq</sub>~~ described in the following table, measured at ~~each any respective residence~~.

Monitoring Site	Hourly L <sub>eq</sub>
<u>2</u>	<u>42</u>
<u>3*</u>	<u>39</u>
<u>4</u>	<u>38</u>

\* Measured adjacent to the actual residence

No new pure tone components may be introduced. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints, as determined by the CPM. Steam relief valves shall be adequately muffled to preclude noise that draws legitimate complaints, as determined by the CPM.

**Verification:**

1. Within 30 days of the project first achieving a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey at Site 2. In addition, the applicant shall conduct short-term survey noise measurements at monitoring sites 3 and 4. The short-term noise measurements shall be conducted during both daytime (7 a.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods. The noise surveys shall also include short-term measurement of one-third octave band sound pressure levels at each of the above locations to ensure that no new pure-tone noise components have been introduced.
2. If the results from the operational noise survey indicate that the noise level due to the plant operations exceeds ~~39 dBA~~the corresponding value in the table above for any given hour, mitigation measures shall be implemented to reduce noise to a level of compliance with this limit.
3. If the results from the operational noise survey indicate that pure tones are present, mitigation measures shall be implemented to eliminate the pure tones.

Within 15 days after completing the post-construction survey, the project owner shall submit a summary report of the survey to the Alameda County Planning Department, and to the CPM. Included in the survey report will be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limits, and a schedule, subject to CPM approval, for implementing these measures. Within 15 days of completion of installation of these measures, the project owner shall submit to the CPM a summary report of a new noise survey, performed as described above and showing compliance with this condition.

**SOCIOECONOMICS**

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**Page 5.8-11, SOCIO-1, Verification, 1<sup>st</sup> sentence**

The following correction should be made to address the applicant's concerns:

At least 60 days prior to the start of construction ~~demolition~~, ...

**TRAFFIC AND TRANSPORTATION**

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**Page 5.9-18, TRANS-5, Item c**

Staff has agreed to make the following changes to TRANS-5 in response to the applicant's concerns:

- c) ~~Monitoring and compliance with speed limits on Mountain House Road, particularly~~Construction worker and all truck deliveries shall not use Mountain House Road in the vicinity of the Mountain House ~~school~~School;

**Page 5.9-18, TRANS-5, Verification**

The following changes to the verification for TRANS-5 are in support of the changes to the condition:

**Verification:** At least 30 days prior to site mobilization, the project owner shall provide to the County of Alameda, the County of San Joaquin and Caltrans for review and comment, and to the CPM for review and approval, a copy of their construction traffic control plan and transportation demand implementation program. Additionally, every 4 months during construction the project owner shall submit to the CPM turning movement studies for the intersection at Byron-Bethany Road and Mountain House Road, and Byron-Bethany Road and Kelso Road entrance to the East Altamont Energy Center plant during the A.M. (7:30 to 8:30 a.m.) and P.M. (4:30 to 5:30 p.m.) peak hours.

### **Page 5.9-18- TRANS-6**

Staff has agreed that TRANS-6 is no longer necessary and to would like to eliminate this condition. For simplicity, the remaining conditions retain their original numbering.

### **Page 5.9-19- TRANS-9**

The following corrections should be made to address the applicant's concerns about signage requirements:

**TRANS-9** The project owner shall consult with the County of Alameda and submit to the CPM for approval a schedule for the installation of permanent fixed fog warning signs for motorists traveling along Byron -Bethany Road near the project site. Sign requirements shall be in accordance with Caltrans specifications.

## **VISUAL RESOURCES**

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### **Pages 5.12-44 through 5.12-46, VIS-3 and VIS-5**

Based on discussions with the applicant during the workshops, staff proposes the following changes to VIS-3 and VIS-5:

**VIS-3** The project owner shall install landscaping to provide the maximum feasible visual screening between the power plant and public view areas. The landscaping shall include rows and informal groupings of ~~evergreen~~ trees and shrubs around the power plant to provide a virtually continuous visual screen. To maximize visual screening the species to be used shall be ~~fast-growing and fast-growing, capable of reaching a minimum height of 50 feet at maturity,~~ and the size of the plants shall be the optimum for achieving maximum height as soon as possible. ~~The landscaping may include additional deciduous trees and shrubs to provide variety.~~ The trees to be planted along the north and east sides of the project site, and along the south side of the project site except under the project's transmission lines, shall be capable of reaching a minimum height of 50 feet at maturity. The project owner shall also plant evergreen trees and/or shrubs to visually screen the above-ground ancillary facilities associated with the linear project components, except for new transmission line structures for the interconnection.

The project owner shall submit a landscaping plan to the CPM for review and approval and to Alameda County for review and comment. The plan shall include:

- a) 11"x17" color photo simulations of the proposed landscaping for the power plant at 10 years after planting as it is expected to appear in both summer and winter as viewed from KOPs 1, 2, and 5;
- b) a detailed list of plants to be used, specifying their rates of growth and times to maturity given their proposed size and age at planting; and
- c) a diagram showing the planting locations for each species. Landscaping shall be planted continuously around the power plant except as restricted by access roads and the electric transmission interconnection lines.

The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM.

**Verification:** The project owner shall submit the landscaping plan prior to first turbine roll and at least 90 days prior to installing the landscaping. The planting must be completed by start of project operation.

The project owner shall notify the CPM within seven days after completing installation of the landscaping, that the landscaping is ready for inspection.

**VIS-5** The project owner shall design and install all permanent lighting such that, to the extent that is consistent with safety considerations, light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project, the vicinity, and the nighttime sky is minimized. To meet these requirements the project owner shall ensure that:

- a) Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to minimize light trespass outside the project boundary while taking into consideration security concerns.
- b) All lighting shall be of minimum necessary brightness consistent with worker safety and security concerns ;
- c) High illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have switches or motion detectors to light the area only when occupied; and
- d) Plant operations staff shall record all lighting complaints received and document the resolution of those complaints. All records of lighting complaints shall be kept in the on-site compliance file.

**Verification:** At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to the CPM for review and approval and to Alameda County for review and comment written documentation describing the lighting control

measures and fixtures, hoods, shields proposed for use. The project owner shall incorporate the CPM's comments in lighting equipment orders.

Prior to first turbine roll, the project owner shall notify the CPM that the lighting has been completed and is ready for inspection.

The project owner shall report any complaints about permanent lighting and provide documentation of resolution in the Annual Compliance Report for that year.

## WATER AND SOIL RESOURCES

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### Page 5.14-25, On-Site Water Storage

Revise the last 3 sentences as follows:

Therefore, staff recommends for the Applicant's consideration ~~concludes~~ that in order to improve maintain reliability in water supply, EAEC's on-site storage capacity should be a minimum of 10 million gallons, a volume adequate to supply plant water makeup needs for 24 hours. ~~Condition of Certification SOILS & WATER 7 includes this requirement for minimum storage. The additional 5 million gallon tank is expected to require a capital investment of about \$3 million based on the Applicant's own estimates (EAEC 200t, Data Request #84).~~

### Pages 5.14-47, SOILS&WATER-5

Revise SOILS&WATER-5 as follows:

**SOILS&WATER 5:** Total water use by the project owner for the operation of EAEC and associated landscape irrigation shall not exceed ~~an annual average of 4,616 acre-feet,~~ a peak annual demand of 7,000 acre-feet and a peak daily flow of 9.1 mgd. Water used by EAEC shall not adversely impact fresh water supplies to municipal or agricultural customers of BBID. ~~EAEC-The project owner shall use tertiary treated, recycled water for all of as its primary water source for its EAEC -cooling, process and landscape irrigation non-potable operational requirements. \_ as soon as possible, but no later than January 1, 2020. Until 2020, The project owner shall use 100 percent of the tertiary treated water produced by the MHCSD Wastewater Treatment Plant and as supplemented by any other tertiary treated water sources that may be developed by BBID to the maximum extent possible to meet EAEC's non-potable water requirements. †Raw water supplied by BBID may be used during periods when daily production of recycled water is not sufficient to meet daily cooling, process and irrigation water demands of EAEC, or in the event of an unavoidable interruption in recycled water supply due to wastewater treatment plant upset or loss of conveyance. from Canal 45 may supplement the recycled water supply to the extent needed. Beginning in 2020 and thereafter, in the event of an unavoidable interruption in recycled water supply, or otherwise should fresh water be needed to support peaking demands, up to 10 percent~~

~~non-recycled water use will be allowed based on the actual annual EAEC water use for the particular year.~~ **If this specified water supply is not available or the specified limits will be exceeded prior to the end of the each calendar year, the project owner shall immediately notify the CPM.** The notification must specify the cause and proposed new source of recycled water, modified cooling technology, or other reasonable solution subject to approval by the CPM.

**Verification:** In the annual compliance report, the project owner shall submit a water use summary report to the CPM that documents the previous year's actual fresh and recycled water use. The water use summary shall be consistent with the requirements of **Condition of Certification SOILS&WATER 8**, providing daily meter readings of available recycled water supply from MHCSW Wastewater Treatment Plant and any other supplemental recycled water sources developed by BBID in comparison to EAEC daily water demands. When EAEC operates for less than 24 hours/day, daily utilization of recycled water supply may be apportioned according to the actual hours and demands of EAEC daily operation. ~~on a monthly basis consistent with requirements of **Condition of Certification SOILS&WATER 8**, distinguishing sources of water and their uses.~~ Annual average will be calculated using actual project water use over consecutive five-year increments starting with the first year of operation. The water use summary shall include: 1) a narrative that provides sufficient explanations of EAEC daily operating conditions and associated water use, 2) data and associated calculations as specified in Condition of Certification SOILS&WATER 8, and 3) daily recycled water production information from MHCSW and other recycled water sources available through BBID necessary to demonstrate daily compliance.

#### **Pages 5.14-47 – 5.14-48, SOILS&WATER-7**

Revise SOILS&WATER-7 as follows:

**SOILS&WATER-7:** The EAEC project shall include the following specific design features to ensure maximum use of recycled water:

- a) Plant and site piping shall be installed to allow recycled water to be used for cooling tower makeup, process water and landscape irrigation. Cross connection protection between raw, recycled, and potable water systems shall be in accordance with Chapter 19, Backflow Prevention and Cross Connection Control, of Title 22, California Code of Regulations as proposed in the March 20, 2002 Draft Cross Connection Control Regulations.
- b) Systems shall be included to facilitate the feed of a second oxidizing biocide (in addition to sodium hypochlorite) and also a non-oxidizing biocide.
- ~~c) The landscaped irrigation system shall be plumbed to use recycled water.~~
- d)c)      The surface condenser shall be constructed of materials compatible with recycled water.

e)d) ~~\_\_\_\_\_~~ The recycled water pipeline from the Mountain House Community Services District (MHCSD) wastewater treatment plant to EAEC shall be sized, at a minimum, to convey the projected capacity of recycled water produced from the Mountain House development by 2020, or 4,000 gpm, whichever is greater. ~~supply peak EAEC demand with 100 percent recycled water from MHCSD.~~

f)e) ~~\_\_\_\_\_~~ On-site raw water storage shall be a minimum of 10 million gallons.

g)f) ~~\_\_\_\_\_~~ Storm water shall be recycled to the cooling tower basin.

Approval of the final design of the water supply and treatment system by the CPM shall be obtained prior to the start of construction of these systems.

**Verification:** At least 60 days prior to the start of construction of the water supply system, the project owner shall submit to the CPM its water supply system design demonstrating compliance with this condition. These required features shall be included in the final design drawings submitted to the CBO as required in **Condition of Certification CIVIL-1**. Approval of the final design of the water supply and treatment system by the CPM shall be obtained prior to the start of construction of the systems.

#### **Pages 5.14-49, SOILS&WATER-10**

Delete in its entirety SOILS&WATER-10.

### **WORKER SAFETY AND FIRE PROTECTION**

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#### **Page 3 of Staff's Errata to the Final Staff Assessment, WORKER SAFETY-3**

In response to a request from the applicant, staff agrees to the following change:

**WORKER SAFETY-3** The project owner shall enter into an agreement with Alameda County for enhanced fire protection services....

### **GEOLOGY AND PALEONTOLOGY**

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The following changes to staff's proposed conditions of certification are intended to address the applicant's concerns and to ensure consistency with other projects:

#### **Page 6.2-8, PAL-1, beginning with 3<sup>rd</sup> paragraph**

As determined by the CPM, the PRS shall meet the minimum qualifications for a vertebrate paleontologist as described in the Society of Vertebrate Paleontologists (SVP) guidelines of 1995. The experience of the PRS shall include the following:

- 1) institutional affiliations or appropriate credentials and college degree;
- 2) ability to recognize and collect~~recover~~ fossils in the field;
- 3) local geological and biostratigraphic expertise;

- 4) proficiency in identifying vertebrate and invertebrate fossils; and
- 5) ~~publications in scientific journals; and~~
- 6) the PRS shall have at least three years of paleontological resource mitigation and field experience in California, and at least one year of experience leading paleontological resource mitigation and field activities.

The project owner shall ensure that the PRS shall obtains qualified paleontological resource monitors to monitor as necessary on the project. Paleontologic resource monitors (PRMs) shall have the equivalent of the following qualifications:

- 1) BS or BA degree in geology or paleontology and one year experience monitoring in California; or
- 2) AS or AA in geology, paleontology or biology and four years experience monitoring in California; or
- 3) Enrollment in upper division classes pursuing a degree in the fields of geology or paleontology and two years of monitoring experience in California.

**Verification:**

1. At least 60 days prior to the start of ground disturbance, the project owner shall submit a resume and statement of availability of its designated PRS for on-site work.
2. At least 20 days prior to ground disturbance, the PRS or project owner shall provide a letter with resumes naming anticipated monitors for the project and stating that the identified monitors meet the minimum qualifications for paleontological resource monitoring required by the condition. If additional monitors are obtained during the project, the PRS shall provide additional letters and resumes to the CPM attesting to the monitor's qualifications for approval. The letter shall be provided to the CPM no later than one week prior to the monitor beginning on-site duties.
3. Prior to the termination or release of a PRS, the project owner shall submit the resume of the proposed new PRS to the CPM for review and approval. Should emergency replacement of the designated specialist become necessary, the project owner shall immediately notify the CPM to discuss the qualifications of the replacement specialist.

**Page 6.2-9, PAL-2, 3<sup>rd</sup> paragraph**

At a minimum, the ~~PRS~~ project owner shall ensure that the PRS or PRM consults weekly with the project superintendent or construction field manager to confirm area(s) to be worked during the next week, until ground disturbance is completed.

**Pages 6.2-9 and 6.2-10, PAL-3**

**PAL-3** ~~The PRS shall prepare,~~ project owner shall ensure that the PRS prepares, and the project owner shall submit to the CPM for review and approval, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP) to identify general and specific measures to minimize potential impacts to significant paleontological resources. ...

The PRMMP shall be developed in accordance with the guidelines of the Society of the Vertebrate Paleontologists (SVP, 1995) and shall include, but not be limited to, the following:

- 1) Assurance that the performance and sequence of project-related tasks, such as any literature searches, pre-construction surveys, worker environmental training, fieldwork, flagging or staking; construction monitoring; mapping and data recovery; fossil preparation and ~~recovery;~~ collection; identification and inventory; preparation of final reports; and transmittal of materials for curation will be performed according to the PRMMP procedures;  
...
- 5) A discussion of the locations of where the monitoring of project construction activities is deemed necessary, and a proposed schedule for the monitoring;  
...
- 6) A discussion of equipment and supplies necessary for ~~recovery~~ collection of fossil materials and any specialized equipment needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits;  
...
- 9) Identification of the institution that has agreed to receive any data and fossil materials ~~recovered,~~ collected, requirements or specifications for materials delivered for curation and how they will be met, and the name and phone number of the contact person at the institution; and ...

#### **Pages 6.2-10 and 6.2-11, PAL-4**

**PAL-4** Prior to ground disturbance and for the duration of construction, the project owner and the PRS shall prepare and conduct ~~weekly~~ CPM-approved training for all project managers, construction supervisors and workers who are involved with or operate ground disturbing equipment or tools. ~~Workers to be involved in ground disturbing activities shall not excavate in sensitive units shall not operate equipment~~ prior to receiving CPM-approved worker training. Worker training shall consist of an initial in-person PRS training during the project kick-off for those mentioned above. Following initial training, a CPM-approved video or in-person training may be used for new employees. The training program may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or any other areas of interest or concern.

The Worker Environmental Awareness Program (WEAP) shall address the potential to encounter paleontological resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources. ~~In-person training shall be provided for each new employee involved with ground disturbing activities, while these activities are occurring in highly sensitive geologic units, as detailed in the PRMMP. The in-person training shall occur within four days following a new hire for highly sensitive sites and as established by the PRMMP for sites of moderate, low, and zero sensitivity. Provisions will be made to provide the WEAP training to workers not fluent in English.~~

The training shall include:

...

- 2) ~~For training in locations of high sensitivity, the PRS shall provide good quality photographs or physical examples of vertebrate fossils that may be expected in the area shall be provided;~~

...

**Verification:** At least 30 days prior to ground disturbance, the project owner shall submit the proposed WEAP including the brochure with the set of reporting procedures the workers are to follow.

At least 30 days prior to ground disturbance, the project owner shall submit the script and final video to the CPM for approval if the project owner is planning on using a video for interim training.

If an alternate paleontological trainer is requested by the owner, the resume and qualifications of the trainer shall be submitted to the CPM for review and approval. Alternate trainers shall not conduct training prior to CPM authorization.

The project owner shall provide in the Monthly Compliance Report the WEAP copies of the Certification of Completion forms with the names of those trained and the trainer ~~for each~~ or type of training offered that month. The Monthly Compliance Report shall also include a running total of all persons who have completed the training to date.

## **Pages 6.2-12 and 6.2-13, PAL-5**

**PAL-5** ~~The project owner shall ensure that the PRS and PRM(s) shall~~ monitor consistent with the PRMMP, all construction-related grading, excavation, trenching, and augering in areas where potentially fossil-bearing materials have been identified. In the event that the PRS determines full time monitoring is not necessary in locations that were identified as potentially fossil-bearing in the PRMMP, ~~the PRS~~ project owner shall notify and seek the concurrence of the CPM.

The project owner shall ensure that the PRS and PRM(s) shall have the authority to halt or redirect construction if paleontological resources are encountered. The project owner shall ensure that there is no interference

with monitoring activities unless directed by the PRS. Monitoring activities shall be conducted as follows:

- 1) Any change of monitoring different from the accepted schedule program presented in the PRMMP shall be proposed in a letter or email from the PRS and the project owner to the CPM prior to the change in monitoring. The letter or email shall include the justification for the change in monitoring and submitted to the CPM for review and approval.
- 2) ~~PRM(s)~~ The project owner shall ~~keep~~ ensure that the PRM(s) keeps a daily log of monitoring of paleontological resource activities. The PRS may informally discuss paleontological resource monitoring and mitigation activities with the CPM at any time.
- 3) ~~The PRS shall immediately notify the project owner and~~ shall ensure that the PRS immediately notifies the CPM of any incidents of non-compliance with any paleontological resources conditions of certification. The PRS shall recommend corrective action to resolve the issues or achieve compliance with the conditions of certification.
- 4) For any significant paleontological resources encountered, either the project owner or the PRS shall notify the CPM immediately (no later than the following morning after the find, or Monday morning in the case of a weekend) of any halt of construction activities.

~~The PRS shall prepare~~ project owner shall ensure that the PRS prepares a summary of the monitoring and other paleontological activities that will be placed in the Monthly Compliance Reports. The summary will include the name(s) of PRS or monitor(s) active during the month; general descriptions of training and monitored construction activities and general locations of excavations, grading, etc. A section of the report will include the geologic units or subunits encountered; descriptions of sampling within each unit; and a list of fossils identified in the field. A final section of the report will address any issues or concerns about the project relating to paleontologic monitoring including any incidents of non-compliance and any changes to the monitoring plan that have been approved by the CPM. If no monitoring took place during the month, the project shall include a justification in an explanation in the summary as to why monitoring was not conducted.

**Verification:** ~~The PRS shall submit~~ project owner shall ensure that the PRS submits the summary of monitoring and paleontological activities in the Monthly Compliance Report.

## Page 6.2-13, PAL-6

**PAL-6** The project owner, through the designated PRS, shall ensure the ~~recovery, collection,~~ preparation for analysis, analysis, identification and inventory, the preparation for curation, and the delivery for curation of all significant paleontological resource materials encountered and collected during the monitoring, data recovery, mapping, and mitigation activities related to the project.

**Verification:** The project owner shall maintain in their compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. The project owner shall maintain these files for a period of three years after completion and approval of the CPM-approved PRR. The project owner shall be responsible to pay any curation fees charged by the museum for fossils collected and curated as a result of paleontological monitoring and mitigation.

**Page 6.2-13, PAL-7**

**PAL-7** The project owner shall ensure preparation of a Paleontological Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of the ground disturbing activities. The PRR shall include an analysis of the ~~recovered~~collected fossil materials and related information and submitted to the CPM for review and approval.