



Mariposa Energy, LLC

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April 1, 2011

Mr. Craig Hoffman, CPM
(09-AFC-3C)
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

**SUBJECT: Mariposa Energy Project (09-AFC-3C)
NOISE-3 Employee Noise Control Program**

Dear Mr. Hoffman:

Please find attached the Employee Noise Control Program for the Mariposa Energy Project (MEP). The document has been submitted for Staff review, in accordance with Condition of Certification NOISE-3. This document was also submitted electronically to the Chief Building Officer (CBO) via BVNet on March 30, 2011.

Mariposa Energy, LLC (Mariposa Energy) acknowledges that MEP has not yet been certified by the California Energy Commission (CEC). Submittal of this compliance information is at Mariposa Energy's risk and in no way implies or predisposes project certification by the CEC.

If you have any questions regarding this submittal, please do not hesitate to contact me at (213) 346-2134 or Keith McGregor at (916) 286-0221.

Sincerely,

Chris Curry
Mariposa Energy, LLC
Senior Manager - Development

Attachments: Employee Noise Control Program

cc: Bo Buchynsky, Mariposa Energy, LLC
James Spicer, Mariposa Energy, LLC
Keith McGregor, CH2M HILL

	<u>Policy/Procedure:</u> Mariposa Energy Project Noise Control Program	<u>Approvals</u> <u>Les Mathine</u> Project Manager <u>Bryon Creech</u> Safety Director	<u>Date</u> <u>02-16-2011</u> <u>2-16-2011</u>
	4901 Bruns Road Byron, CA	Number: 415059 Revision Number: A Page 1 of 11	Date: 02-16-2011 Date: 02-16-2011 Reference: OSHA 1910.95

POLICY

LG Constructors shall provide adequate safeguards to prevent permanent noise-induced hearing loss resulting from occupational noise exposure at the Mariposa Energy Project. LG Constructors shall provide a written noise control program in compliance with OSHA regulations.

SCOPE

This policy applies to all employees of LG Constructors, its subsidiaries and any subcontractors working on the site to the extent that they do not have appropriate procedures.

DEFINITIONS

Time Weighted Average (TWA) is the sound level averaged over a given period, as determined by monitoring at given times during the period or averaging data over the work shift.

REQUIREMENTS

I. Program Requirements

- A. A hearing conservation program shall be established at those locations where employees are exposed to noise levels of 85 dBA time weighted average (TWA) for eight hours or 82 dBA TWA for employees who work 12 hour shifts.
Impulse or impact noise should not exceed 140 dBA peak sound pressure level.
- B. The hearing conservation program shall include:
 - 1. Initial workplace noise surveys. Areas shall be surveyed again when significant process or equipment changes occur.
 - 2. Properly selected hearing protection devices that reduce exposure levels below 85 dBA for an 8-hour TWA or 82 dBA TWA for 12 hour shift employees.
 - 3. Assessment and implementation of feasible engineering and/or administrative controls to reduce noise exposures.
- C. The Safety Department shall administer and coordinate this program. The site supervisors are responsible for compliance and enforcement of the program. A Noise Control Program Checklist is attached as Appendix A.

II. Sound Level Surveys and Dosimetry Monitoring

- A. Sound level surveys shall be conducted with an ANSI approved Type II sound level meter to determine areas where 85 dBA is exceeded. Meters will be calibrated and adjusted to altitude differences prior to use in accordance with the manufacturers' specifications. The person conducting the survey to ensure reliability shall also perform post-survey calibrations.

Surveys shall be repeated when noise exposure increases significantly.

- B. Results of surveys will be documented and retained on file. The Safety Department will maintain a copy of surveys for 2 years. The information will be communicated to employees through posting signs, diagrams, or other means of effective communication.
- C. All surveys shall be conducted with the sound level meter in the A-weighted slow response mode.
- D. Dosimetry results will be documented and reported to employees when exposure is at or above 85 dBA. The Safety Department shall maintain a copy of the dosimetry results for the required time.
- E. A sound survey should be completed periodically when high noise levels are noticed. These surveys need to be reevaluated if equipment or conditions change such that additional employees become exposed to high noise levels. If the noise level is already above 85 dBA, a new survey is not required.
- F. LG Constructors shall provide affected employees or their representatives with an opportunity to observe any noise measurements conducted at the site.

III. Hearing Protection Devices and Signs

- A. All employees who enter areas where sound levels are 85 dBA or greater shall wear adequate hearing protection. Employees who work 12 hour shifts shall wear hearing protection where sound levels are 82 dBA or greater.
- B. Hearing protectors must attenuate employee exposure at least to an 8-hour TWA of 90 dBA, and preferably to a TWA of 85 dBA. For employees who have experienced a standard threshold shift, hearing protectors must attenuate exposure to an 8-hour TWA of 85 dBA or lower. Contact the Safety Department to ensure approved hearing protectors are utilized.
- C. Employees shall be given the option of utilizing hearing protectors that are the most comfortable as long as the attenuation value is not compromised.
- D. All areas that require hearing protection to be worn by employees shall have a sign posted stating this requirement at each area entry point. The following wording is recommended:

NOTICE

Hearing Protection Required.

V. Safety Training Program

- A. All employees shall participate in the initial safety training that shall include the following:
 - 1. The requirements of OSHA and LG Constructors regarding occupational noise exposure
 - 2. An explanation of how the ear hears and the effects of noise exposure on hearing.
 - 3. The importance, purpose, attenuation ratings of hearing protectors as well as the proper selection, fitting, use, and care of hearing protectors.
 - 4. Areas where noise exposures can occur within their workplace
 - 5. Tasks associated with the scope of work that may involve exposures at or above 85 dBA.

VI. Engineering and Administrative Controls

- A. The site shall employ feasible engineering controls to attenuate noise exposures above a TWA of 90 dBA wherever practical. Engineering solutions may include:
 - 1. Engineering shall ensure that the design specifications for purchased equipment meet the necessary requirements for noise control. They shall also ensure that after installation; newly acquired equipment meets the necessary requirements for noise control.
 - 2. Selection, purchasing, and rental policy/specification requiring the purchase, lease, rental, and contracting of quiet equipment
 - 3. Locating “noisy” equipment away from the work area to reduce noise exposure to site personnel
 - 4. Replacing defective equipment parts, such as bearings, blades, etc.,
 - 5. Tightening loose or vibrating equipment, parts, etc.,
- B. Where engineering controls are not practical, administrative controls will be the next available option, for example:
 - 1. limit employee’s noise exposure during a shift by providing necessary quiet time with a different job
 - 2. Provide noise-exposure training is required for personnel exposed to noise levels exceeding 85 dBA.
 - 3. Require that potential noise exposures are considered during the development of pre-task plans (PTP) completed by foreman and crew prior to each task.

REFERENCES

Title 8, California Code of Regulations
Occupational Safety and Health Administration (OSHA), 29 CFR, 1910.95

American National Standards Institute, Specifications for Sound Level Meters, ANSI S1.4-1983

Specifications for Audiometers, ANSI S3.6-1969, Specifications for Personal Noise Dosimeters, ANSI S1.32-1980

ALL_TOOLS_SWLA

ACGIH TLV Booklet

Appendix A

Noise Control Program Checklist

Project Name: _____ Project No.: _____
 Location: _____ PM: _____
 Auditor: _____ Title: _____ Date: _____

This specific checklist has been completed to (check only one of the boxes below):

Evaluate LG Constructors compliance with its Hearing Protection program
 Evaluate a L G Constructors subcontractor’s compliance with its Hearing Conservation program
 Subcontractor’s Name: _____

- Check “Yes” if an assessment item is complete or correct.
- Check “No” if an item is incomplete or deficient. Section 2 must be completed for all items checked “No.”
- Check “N/A” if an item is not applicable.
 - Check “N/O” if an item is applicable but was not observed during the assessment.

<u>SECTION 1</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>N/O</u>
NOISE ASSESSMENT				
1. Employee must shout to converse – conduct hearing assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. A noise survey has been performed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. All affected employees are included in the sampling strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Instruments used to conduct noise survey have been calibrated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Survey results have been provided to affected employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The employer maintains copies of noise surveys for at least two years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GENERAL				
7. Hearing protection required if employee must shout to converse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Required hearing protection listed in HSP, FSI, or AHA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Hearing protection available for use by employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Hearing protection stored appropriately to prevent deformation or distortion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Prior to insertion, users’ hands/fingers are in a clean/sanitary condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Hearing protection is maintained in a clean and sanitary condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Damaged hearing protection is not used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Signs are posted warning employees of the areas requiring hearing protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>N/O</u>
NOISE ATTENUATION cont.²				
15. After NRR is calculated, hearing protection chosen is appropriate for noise levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. If noise levels change, NRR is recalculated to ensure appropriate hearing protection is provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ENGINEERING CONTROLS				
17. Engineering controls can be used to minimize noise exposure to personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Are engineering management controls available to reduce the noise exposure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. If technically/economically feasible, client authorizes implementation of engineering controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ADMINISTRATIVE CONTROLS				
20. Employees can be rotated to further reduce exposure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Work assignments/tasks can be moved out of the high noise level areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HEARING PROTECTION DEVICES				
22. Hearing protection selected is appropriate for the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Hearing protection selected does not interfere with the task	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Hearing protector seals are intact and have an effective seal on the users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Hearing protection selected fits the users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Hearing protection selected is appropriate for the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Hearing protection selected attenuates noise to below 90 dBA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRAINING				
28. Employees have been provided with appropriate training regarding the effects of noise on hearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Employees have been provided with appropriate training regarding the hearing protection devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Employees have been provided with annual training indicating the purpose of hearing protectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Affected employees have been provided with annual training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Noise Control Program