Draft
AQ-SC2

Air Quality Construction Mitigation Plan

for the

Oakley Generating Station

(09-AFC-04C)

Prepared for

CCGS LLC

March 2011

CH2MHILL
2485 Natomas Park Drive, Suite 600
Sacramento, California 95833

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Acronyms and Abbreviations

AQCMM	Air Quality Construction Mitigation Manager
AQCMP	Air Quality Construction Mitigation Plan
BMPs	best management practices
CCGS LLC	Contra Costa Generating Station LLC
CEC	California Energy Commission
COC	Condition of Certification
CPM	Compliance Project Manager
hp	horsepower
MCR	monthly compliance report
OGS	Oakley Generating Station
PG&E	Pacific Gas and Electric Company
ROW	right-of-way
SWPPP	Stormwater Pollution Prevention Plan

SECTION 1

Introduction

This document is the Air Quality Construction Mitigation Plan (AQCMP) for the Oakley Generating Station (OGS or Project). The OGS is a 624-megawatt, natural-gas-fired, combined-cycle generating facility developed and owned by Contra Costa Generating Station LLC (CCGS LLC). The AQCMP is being submitted to comply with Condition of Certification (COC) AQ-SC2, as set forth in the California Energy Commission's (CEC) Final Staff Assessment for OGS, dated March 1, 2011. This plan may be amended if Condition AQ-SC2 is different in the Final Commission Decision, expected to be issued in May 2011.

The purpose of the AQCMP is to detail the steps to be taken and the reporting requirements necessary to ensure compliance with COCs AQ-SC3, AQ-SC4, and AQ-SC5. This AQCMP addresses all components of the Project and will be amended if necessary to account for new information or changing conditions.

The following appendixes are provided with this report:

A Excerpt from the CEC Conditions of Certification (AQ-SC1 through AQ-SC5)
B Equipment Survey Form
C Resumes of AQCMM and AQCMM Delegate

SECTION 2

Project Overview

2.1 Project Description

The OGS is a combined-cycle, natural gas-fired power plant owned by Contra Costa Generating Station LLC. The project will consist of two natural gas-fired combustion turbines with heat recovery steam generators, a steam turbine, air-cooled condenser, and ancillary equipment. The project site is located at the intersection of Bridgehead Road and Wilbur Avenue, approximately 3,000 feet south of the San Joaquin River in the City of Oakley, Contra Costa County. The project parcel is a 21.95-acre site located within the boundary of an existing 210-acre site owned by DuPont. The power plant would be built on a portion of the DuPont site currently used as a vineyard. An existing 1.6-acre conservation area, which includes a 0.62-acre mitigation wetland (Wetland E), is adjacent to the western property line at Bridgehead Road. The project site is bounded on the west by the Pacific Gas and Electric Company (PG&E) Antioch Terminal, a large natural gas transmission hub; on the north by formerly industrial property belonging to DuPont that has been abandoned; on the east by DuPont's titanium dioxide disposal area; and to the south by a vineyard and the Burlington Northern Santa Fe railroad.

The proposed construction worker parking and laydown area for the project will be located east of the project parcel, and soil from the project will be temporarily stockpiled in three areas north of the project parcel. The construction laydown area will be approximately 20 acres total: approximately 13-acres were formerly used as DuPont's titanium dioxide disposal site, approximately 0.5 acres are covered by a row of mature Eucalyptus trees along the southwest and southern boundary of the paved area, and the remaining area is an existing paved surface. Figure 2-1 shows the project boundaries and location of the proposed construction activities.

Power from the facility will be transmitted 2.4 miles to PG&E's Contra Costa Substation on a new 230-kV single-circuit transmission line. Construction of this line will follow an existing PG&E transmission line right-of-way (ROW) and will consist of replacing existing steel-lattice towers with tubular steel poles and reconductoring the line. It will also be necessary to construct a new sanitary sewer force main from the project tie-in location on Bridgehead Road to the gravity main located in Main Street. Construction of this line would be within the Bridgehead Road and Main Street ROWs.

Short-term construction exhaust and fugitive dust emissions will be generated during installation of the project features identified above. The peak construction activities are expected to be completed within 20 months of the 33-month construction phase. The remaining construction period will be used for contractor mobilization, turbine commissioning activities, and contractor demobilization.

2.2 Project Schedule

A project schedule showing construction activities is presented in Table 2-1. Construction mobilization is expected to start in May 2011, assuming regulatory approvals are obtained prior to this date. Project construction is expected to last approximately 33 months.

TABLE 2-1
Project Construction Schedule

Event Description	Expected Dates
Anticipated construction start date	May 2011
Start construction of the project boundaries, clearing and grubbing, and sediment/wildlife fence installation.	May 2011
Start construction of laydown, parking, and construction offices	May 2011
Start power plant construction	June 2011
Start sanitary sewer force main construction	Third Quarter 2011
Start transmission line construction	Fourth Quarter 2011
Facility startup and commissioning activities	Third Quarter 2013
Commercial operation	Fourth Quarter 2013

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

N

0 1,000 2,000
Feet

FIGURE 2-1
PROJECT LOCATION
Oakley Generating Station
Oakley, California

CH2MHILL

\\ZION\SACGIS\PROJ\RADBACKENERGY\385962\MAPFILES\SITELOCATION.MXD GPERDEW 9/14/2010 17:46:29

SECTION 3

Project Participants

The Air Quality Construction Mitigation Manager (AQCMM) or AQCMM delegate will be responsible for directing and documenting compliance with COCs AQ-SC3, AQ-SC4, and AQ-SC5 (see Sections 4 and 5). A copy of AQ-SC3, AQ-SC4, and AQ-SC5 are included in Appendix A. The AQCMM and AQCMM delegates:

- Will have full access to all areas of construction on the project site and linear facilities
- Will have the authority to stop any or all construction activities
- Will have the authority to direct more intensive dust mitigation measures as required by AQ-SC4 (See Section 5)
- May coordinate the implementation of best management practices (BMPs) for wind erosion control in conjunction with the implementation of the Stormwater Pollution Prevention Plan (SWPPP) and Drainage, Erosion, and Sediment Control Plan
- Will be responsible for the preparation of the air quality portion of the monthly compliance reports (MCR) as outlined in Section 6.

The AQCMM will submit the MCR to the Construction Compliance Manager for submittal to the CEC Compliance Project Manager (CPM).

CCGS LLC's engineering, procurement, and construction contractor is identified as the General Contractor in Table 3-1. Under direction of the AQCMM, the General Contractor will be responsible for the implementation of the fugitive dust and diesel emission control methods outlined in Section 4. The General Contractor will report potential dust mitigation compliance issues to the AQCMM and the Construction Compliance Manager.

The CEC CPM oversees compliance with the CEC COCs for the project. The CEC CPM is also responsible for processing post-certification changes, documenting and tracking compliance filings, and ensuring that compliance files are maintained and accessible.

The contact information for the AQCMM, the Project Owner, CEC CPM, Construction Compliance Manager, and the General Contractor are included in Table 3-1.

TABLE 3-1
Oakley Generating Station Project Personnel and Contact Information

Project Owner Contra Costa Generating Station LLC P.O. Box 1690 Danville, CA 94526	**Contact Information** Bryan Bertacchi Phone: (925) 820-5222 Mobile: (916) 769-9640 Email: bryan.bertacchi@radback.com
General Contractor Oakley Power Contractors 11401 Lamar Ave Overland Park, KS 66211	**Contact Information** Terry Jordan Phone: (913) 458-2287 Email: jordanta@bv.com
Project Owner's Onsite Construction Manager Contra Costa Generating Station LLC P.O. Box 1690 Danville, CA 94526	**Contact Information** James McLucas Phone: (925) 820-5222 Mobile: (925) 570-0835 Email: jim.mclucas@radback.com
Project Owner's Construction Compliance Manager Contra Costa Generating Station LLC P.O. Box 1690 Danville, CA 94526	**Contact Information** Greg Lamberg Phone: (925) 820-5222 Mobile: (916) 799-9463 Email: greg.lamberg@radback.com
AQCMM Oakley Power Constructors 11401 Lamar Ave Overland Park, KS 66211	**Contact Information** Al Dame Mobile: (937) 750-1880 Email: dameai@bv.com
AQCMM Delegate Oakley Power Constructors 11401 Lamar Ave Overland Park, KS 66211	**Contact Information** Mark McKeon Mobile: (203) 668-5035 Email: mckeonmp@bv.com
CEC CPM 1516 Ninth Street, MS 15 Sacramento, California 95814	**Contact Information** Craig Hoffman Phone: (916) 654-4781 Email: choffman@energy.state.ca.us
BAAQMD General Air Pollution Hotline 939 Ellis Street San Francisco, CA 94109	**Contact Information** Phone: (800) 334-6367

SECTION 4

Emission Control Methods

4.1 Fugitive Dust Mitigation Measures

The following fugitive dust mitigation measures will be implemented during project construction in order to comply with COC AQ-SC3:

a. All unpaved roads and disturbed areas in the project and linear construction sites will be watered as frequently as necessary to comply with the dust mitigation objectives in Section 5 of this document. The frequency of watering may be either reduced or eliminated during periods of precipitation.

b. No vehicle will exceed 15 miles per hour within the construction site.

c. The construction site entrances will be posted with visible speed limit signs.

d. All construction equipment vehicle tires will be inspected and washed as necessary to be 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 unpaved exits from the construction site will be graveled or treated to prevent track-out to public roadways.

g. All construction vehicles will enter the construction site through the treated entrance roadways unless an alternative route has been submitted to and approved by the CPM.

h. Construction areas adjacent to any paved roadway will be provided with sandbags or other measures as specified in the SWPPP to prevent run-off to roadways.

i. All paved roads within the construction site will be swept at least twice daily (or less during periods of precipitation) on days when construction activity occurs to prevent the accumulation of dirt and debris.

j. At least the first 500 feet of any public roadway exiting from the construction site will be swept as needed on days when construction activity occurs or on any other day when dirt or run-off from the construction site is visible on the public roadways.

k. All soil storage piles and disturbed areas that remain inactive for longer than 10 days will be covered or treated with appropriate dust-suppressant compounds.

l. All vehicles that are used to transport solid bulk material on public roadways and that have the potential to cause visible emissions will be provided with a cover, or the materials will be sufficiently wetted and loaded onto the trucks to provide at least two feet of freeboard.

m. Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) will be used on all construction areas that may be disturbed. Any windbreaks installed to comply with this condition will remain in place until the soil is stabilized or permanently covered with vegetation.

4.2 Diesel-fueled Engine Control

The following diesel-fueled engine control measures will be implemented during project construction in order to comply with COC AQ-SC5:

a. All diesel-fueled engines used in the construction of the facility are required to have clearly visible tags, issued by the onsite AQCMM, showing that the engine meets the Tier 3 California emission standards for off-road compression-ignition engines.

b. All construction diesel engines with a rating of 50 horsepower (hp) or higher are required to meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless it is certified by the onsite AQCMM that such engine is not available for a particular item of equipment. This good faith effort must be documented with signed written correspondence by the appropriate construction contractors, along with documented correspondence with at least two construction equipment rental firms. In the event that a Tier 3 engine is not available for any offroad equipment larger than 50 hp, that equipment must be equipped with a Tier 2 engine or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides and diesel particulate matter to no more than Tier 2 levels, unless certified by engine manufacturers or the onsite AQCMM that the use of such devices is not practical for specific engine types. For purposes of this condition, the use of such devices is not practical for the following, as well as other, reasons:

    1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to Tier 2 equivalent emission levels and either a Tier 1 engine or the highest level of available control is being used; or

    2. The construction equipment is intended to be on site for 5 days or less.

    3. The CPM may grant relief from this requirement if the AQCMM can demonstrate a good faith effort to comply with this requirement and that compliance is not possible.

    4. Equipment owned by specialty subcontractors may be granted an exemption, for single equipment items on a case-by-case basis, if it can be demonstrated that extreme financial hardship would occur if the specialty subcontractor had to rent replacement equipment, or if it can be demonstrated that a specialized equipment item is not available by rental.

c. The use of a retrofit control device may be terminated immediately, provided that the CPM is informed within 10 working days of the termination and the AQCMM demonstrates that one of the following conditions exists:

   1. The use of the control device is excessively reducing the normal availability of the construction equipment due to increased downtime for maintenance, and/or reduced power output due to an excessive increase in back pressure.

   2. The control device is causing or is reasonably expected to cause significant engine damage.

   3. The control device is causing or is reasonably expected to cause a significant risk to workers or the public.

   4. Any other seriously detrimental cause which has the approval of the CPM prior to implementation of the termination.

d. All heavy earth-moving equipment and heavy duty construction-related trucks with engines meeting the requirements of (b) above will be properly maintained and the engines tuned to the engine manufacturer's specifications.

e. All diesel heavy construction equipment will not idle for more than 5 minutes, to the extent practical.

f. Construction equipment will employ electric motors when feasible.

SECTION 5

Fugitive Dust Response Requirements

The AQCMM or an AQCMM delegate is required to monitor all construction activities for visible dust plumes with the potential to be transported off the project site 200 feet beyond the centerline of the construction of linear facilities or within 100 feet upwind of any regularly occupied structures not owned by the Project Owner.

In the event that the mitigation measures outlined in Section 4.1 of this plan are not effective in reducing the offsite visible dust plumes, the following fugitive dust response measures will be implemented during project construction in order to comply with COC AQ-SC4:

Step 1: Within 15 minutes of making such a determination, the AQCMM or delegate will direct more intensive application of the existing best mitigation methods for reducing wind erosion such as additional watering and/or more frequent street sweeping.

Step 2: If Step 1 specified above fails to result in adequate mitigation within 30 minutes of the original determination, the AQCMM or delegate will direct implementation of additional methods of dust suppression such as the construction of temporary wind breaks, application of soil stabilizers, application of plastic sheeting or a geotech fabric, and/or temporarily halt construction.

SECTION 6

Reporting Requirements

MCRs will be prepared by the AQCMM or AQCMM delegate and submitted to the Construction Compliance Manager for transmittal to the CEC CPM. The CPM will also be notified if any of the mitigation measures are not providing a level of protection that is appropriate for the impact that is occurring. The CPM will be notified of recommendations, if any, for alternative mitigation measures.

The first monthly report will be prepared following the start of soil disturbance activities. Subsequent reports will be prepared throughout the construction period. The monthly compliance reports will include the following information to meet the requirements of COC AQ-SC3 (reporting frequency in parentheses):

- Identify wind erosion control techniques employed during the month, for example, installation of wind breaks, daily watering, long-term soil stabilization measures, re-vegetation, or other approved BMPs. (monthly)
- Identify placement of speed limit signage. (first MCR and each month signage changes after the first month)
- Identify the location(s) of haul truck wheel washing stations and gravel ramps, and other "track-out" BMPs within the project site and along the project linears. (first MCR and each month BMP locations change after the first month)
- Identify paved road sweeping activities within the project site and extending 500 feet onto any public roadway. If sweeping activities are suspended due to precipitation, this should also be reported. (monthly)
- Copies of any complaints filed with the Project Owner or the Bay Area Air Quality Management District in relation to project construction. (monthly)

Each monthly compliance report will include the following information to meet the requirements of COC AQ-SC5 (reporting frequency in parentheses):

- A Construction Equipment Survey Form for each off-road diesel engine used on-site with a rating of 50 hp or higher. (monthly)
- For all diesel engines 50 hp or higher that do not meet the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines, documentation from at least two construction equipment rental firms is required to verify that such an engine is not available for that particular piece of equipment (see COC AQ-SC5, a(1-4) and c(1-4)). (monthly)
- A letter from each equipment owner indicating the equipment has been properly maintained. (monthly)

The Construction Equipment Survey Form is included in Appendix B.

Appendix A
Excerpt from the CEC Conditions of Certification
AQ-SC1 through AQ-SC5

Oakley Generating Station
09-AFC-04

Excerpt from FSA Conditions of Certification
March 1, 2011

AIR QUALITY

AQ-SC1 Air Quality Construction Mitigation Manager (AQCMM): The project owner shall designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with conditions **AQ-SC3, AQ-SC4** and **AQ-SC5** for the entire project site and linear facility construction. The on-site AQCMM may delegate responsibilities to one or more AQCMM delegates. The AQCMM and AQCMM delegates shall have full access to all areas of construction on the project site and linear facilities, and shall have the authority to stop any or all construction activities as warranted by applicable construction mitigation conditions. The AQCMM and AQCMM delegates may have other responsibilities in addition to those described in this condition. The AQCMM shall not be terminated without written consent of the compliance project manager (CPM).

Verification: At least 60 days prior to the start of ground disturbance, the project owner shall submit to the CPM for approval and for consultation with the Oakley City Engineer: the name, resume, qualifications, and contact information for the on-site AQCMM and all AQCMM delegates. The AQCMM and all delegates must be approved by the CPM before the start of ground disturbance.

AQ-SC2 Air Quality Construction Mitigation Plan (AQCMP): The project owner shall provide, for approval, an AQCMP that details the steps to be taken and the reporting requirements necessary to ensure compliance with conditions of certification **AQ-SC3**, **AQ-SC4** and **AQ-SC5**.

Verification: At least 60 days prior to the start of any ground disturbance, the project owner shall submit the AQCMP to the CPM for approval and for consultation with the Oakley City Engineer. The CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt. The AQCMP must be approved by the CPM before the start of ground disturbance.

AQ-SC3 Construction Fugitive Dust Control: The AQCMM shall submit documentation to the CPM in each monthly compliance report (MCR) that demonstrates compliance with the following mitigation measures for purposes of preventing all fugitive dust plumes from leaving the project site and linear facility routes. Any deviation from the following mitigation measures shall require prior CPM notification and approval.

a. All unpaved roads and disturbed areas in the project and linear construction sites shall be watered as frequently as necessary to comply

with the dust mitigation objectives of **AQ-SC4**. The frequency of watering may be either reduced or eliminated during periods of precipitation.

b. No vehicle shall exceed 15 miles per hour within the construction site.

c. The construction site entrances shall be posted with visible speed limit signs.

d. All construction equipment vehicle tires shall be inspected and washed as necessary to be 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 unpaved exits from the construction site shall be graveled or treated to prevent track-out to public roadways.

g. All construction vehicles shall enter the construction site through the treated entrance roadways unless an alternative route has been submitted to and approved by the CPM.

h. Construction areas adjacent to any paved roadway shall be provided with sandbags or other measures as specified in the Storm Water Pollution Prevention Plan (SWPPP) to prevent run-off to roadways.

i. All paved roads within the construction site shall be swept at least twice daily (or less during periods of precipitation) on days when construction activity occurs to prevent the accumulation of dirt and debris.

j. At least the first 500 feet of any public roadway exiting from the construction site shall be swept as needed on days when construction activity occurs or on any other day when dirt or run-off from the construction site is visible on the public roadways.

k. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered or treated with appropriate dust suppressant compounds.

l. All vehicles that are used to transport solid bulk material on public roadways and that have the potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks to provide at least two feet of freeboard.

m. Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) shall be used on all construction areas that may be disturbed. Any windbreaks installed to comply with this condition shall remain in place until the soil is stabilized or permanently covered with vegetation.

Verification: The project owner shall include in the MCR: (1) a summary of all actions taken to maintain compliance with this condition; (2) copies of any complaints filed with the air district in relation to project construction; and (3) any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC4 Dust Plume Response Requirement: The AQCMM or an AQCMM delegate shall monitor all construction activities for visible dust plumes. Observations of visible dust plumes with the potential to be transported off the project site, 200 feet beyond the centerline of the construction of linear facilities, or within 100 feet upwind of any regularly occupied structures not owned by the project owner indicate that existing mitigation measures are not providing effective mitigation. The AQCMM or delegate shall then implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed.

Step 1: Within 15 minutes of making such a determination, the AQCMM or delegate shall direct more intensive application of the existing mitigation methods.

Step 2: If Step 1 specified above fails to result in adequate mitigation within 30 minutes of the original determination, the AQCMM or delegate shall direct implementation of additional methods of dust suppression.

Step 3: If Step 2 specified above fails to result in effective mitigation within one hour of the original determination, the AQCMM or delegate shall direct a temporary shutdown of the activity causing the emissions. The activity shall not restart until the AQCMM or delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the shutdown source. The owner/operator may appeal to the CPM any directive from the AQCMM or delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

Verification: The AQCMP shall include a section detailing how additional mitigation measures will be accomplished within the specified time limits.

AQ-SC5 Diesel-Fueled Engine Control: The AQCMM shall submit to the CPM, in the MCR, a construction mitigation report that demonstrates compliance with the following mitigation measures for purposes of controlling diesel construction-related emissions. Any deviation from the following mitigation measures shall require prior CPM notification and approval.

a. All diesel-fueled engines used in the construction of the facility shall have clearly visible tags, issued by the on-site AQCMM, showing that the engine meets the conditions set forth herein.

b. All construction diesel engines with a rating of 50 hp or higher shall meet,

at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless certified by the on-site AQCMM that such engine is not available for a particular item of equipment. This good faith effort shall be documented with signed written correspondence by the appropriate construction contractors, along with documented correspondence with at least two construction equipment rental firms. In the event that a Tier 3 engine is not available for any off-road equipment larger than 50 hp, that equipment shall be equipped with a Tier 2 engine or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NOx) and diesel particulate matter (DPM) to no more than Tier 2 levels, unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types. For purposes of this condition, the use of such devices is “not practical” for the following, as well as other, reasons:

1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to Tier 2 equivalent emission levels and either a Tier 1 engine or the highest level of available control is being used; or

2. The construction equipment is intended to be on site for five days or less.

3. The CPM may grant relief from this requirement if the AQCMM can demonstrate a good faith effort to comply with this requirement and that compliance is not possible.

4. Equipment owned by specialty subcontractors may be granted an exemption, for single equipment items on a case-by-case basis, if it can be demonstrated that extreme financial hardship would occur if the specialty subcontractor had to rent replacement equipment, or if it can be demonstrated that a specialized equipment item is not available by rental.

c. The use of a retrofit control device may be terminated immediately, provided that the CPM is informed within 10 working days of the termination and the AQCMM demonstrates that one of the following conditions exists:

1. The use of the control device is excessively reducing the normal availability of the construction equipment due to increased down time for maintenance, and/or reduced power output due to an excessive increase in back pressure.

2. The control device is causing or is reasonably expected to cause significant engine damage.

3. The control device is causing or is reasonably expected to cause a significant risk to workers or the public.

4. Any other seriously detrimental cause which has the approval of the CPM prior to implementation of the termination.

d. All heavy earth-moving equipment and heavy duty construction-related trucks with engines meeting the requirements of (b) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications.

e. All diesel heavy construction equipment shall not idle for more than five minutes, to the extent practical.

f. Construction equipment will employ electric motors when feasible.

Verification: The project owner shall include in the MCR: (1) a summary of all actions taken to maintain compliance with this condition; (2) a list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that the equipment has been properly maintained; and (3) any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

Appendix B
Equipment Survey Form

Appendix B
Equipment Survey Form

Description of Project Construction Equipment
(To be filled out by the onsite Air Quality Construction Mitigation Manager)

Equipment Type	Model Year	Manufacturer	Horsepower	EPA/ARB Engine Tier

Note:

For all construction equipment 50 hp or higher that do not meet the Tier 3 California Emission Standards for Off-Road Compression- Ignition Engines, quotes from two separate vendor sources must be attached, documenting that the equipment in question is not available at the Tier 3 level.

Appendix C
Resumes of AQCMM and AQCMM Delegate

AL DAME, CSP, CUSA

Safety Manager

Site Safety Oversight and Training

Education
B.S. in Management and Organizational Development, Mount Olive University, 1997

Associates Degree in Applied Arts, Mesa College

Professional Registration

Total Years Experience
35

Joined Black & Veatch
2007

Professional Associations
American Society of Safety Engineers

Language Capabilities
English

Al Dame has over 35 years experience in construction safety, site safety training and inspections on industrial and power projects. Experienced in various levels of management in naval and commercial nuclear power plants and manufacturing plants. Skilled in mechanical maintenance, radiation protection, project management, industrial safety, procedure writing, training program development and implementation, leading quality assurance audits and reliability screening. Holds CSP and CUSA certifications. Performed field superintendent responsibilities in mechanical and civil activities. Team player, pursues tasks until the product is delivered with the highest quality. Deals effectively with a diversity of individuals, learns new procedures and adapts to new situations quickly, a calm and clear thinker in crisis situations. Capable and willing to make decisions, and an experienced public speaker.

Representative Project Experience

Kyger Creek Generating Station Air Quality Improvement Project, AEP, Cheshire Ohio
January 2011 - Present
Field Loss Control Manager – Black & Veatch. The project is to overhaul the Jet Bubbling Reactors on a five unit coal fired power plant. Site Safety for up to 7 contractor companies.

Lawrence Energy Center Air Quality Improvement Installation Project, Westar Energy, Lawrence, Kansas
2010-2010
Field Loss Control Manager – Black & Veatch. The project was to install baghouses on 2 units, build a new limestone prep facility and install transformers and associated wiring to improve electrical reliability. This is a CM Project. Site safety manager for over 200 contractors

Whelan Energy Center Unit 2, Public Power Generation Association, Hastings Nebraska
2009-2009
Field Loss Control Manager – Black & Veatch. The project was a 200m MW new construction coal fired power plant. It was a CM project. I was part of the team that had overall safety management responsibilities for over 1000 contractors.

Martin-Hunters Point 115 kV Underground Transmission Line, Pacific Gas & Electric Co., San Francisco California
2008-2009
Field Loss Control Manager-Black & Veatch. The project was a 5.6 mile transmission line installed underground through the streets of San Francisco. Responsible for safety oversight for up to 20 direct hires and over 100 sub-contractors.

J. M. Stuart FGD Addition Project, Dayton Power & Light, Aberdeen, Ohio
2007-2008
Field Loss Control Manager – Black & Veatch. The project is a four unit coal fueled power plant addition of CT-121 scrubbers. Responsible for oversight of safety programs for approximately 20 contractors in this construction management (CM) environment.

Various Projects and Clients, M.J. Electric, Iron Mountain, Michigan
2005-2007
Safety Manager, Utility Division – M.J. Electric. Responsible for site safety oversight and assistance on utility projects, as well as safety program development and review.

Various Projects and Clients, M.J. Electric, Iron Mountain, Michigan
2004-2005
Safety Manager, Industrial Power and Controls Division – M.J. Electric. Responsible for site safety training and inspections on industrial and power projects. Also managed jobsite safety for construction of a large power plant project.

Magnolia Power Project, Northern California Public Power Authority (NCPPA), Burbank, California
2004
Safety Manager. Kvaerner Songer, Inc. Above ground electrical construction for a new 310 megawatt (MW) power plant with one General Electric (GE) 7FA combustion turbine generator, one heat recovery GE A-14 steam turbine generator system, a turbine generator building, stack, reclaimed wastewater cooling water tower and evaporation facilities, and the unit's control and service building. Project achieved over 1,000,000 manhours of work without a single loss time accident throughout its construction. Project was recognized with a Cal-OSHA Golden Gate Safety Award.

Various Projects and Clients, MYRpower Inc., Bloomfield, Connecticut
2000-2004
Site Safety Manager. Projects included Silverhawk Power Station in Las Vegas, Nevada; Bellingham Energy Project in Bellingham, Massachusetts; and Lake Road Generating Project, a 3 unit, 770 megawatt (MW) combined cycle generating plant in Dayville, Connecticut. Civil superintendent for all laborers, carpenters, masons. Mechanical superintendent for installation of temporary fire water system.

Fall Outage Project, Commonwealth Edison, Morris, Illinois
2000
Instructor. The Venture. Instructor for plant safety, general employee training, nuclear station work procedures and maintenance procedures for Commonwealth Edison and contractor personnel for fall outage schedule.

Indian Point 2 Nuclear Power Station, Bartlett Nuclear Inc., New York, New York
2000
Safety Instructor. Bartlett Nuclear, Inc. Instructor for plant safety, radiation protection and Health Physics personnel.

Tiverton Generating Facility, Larkin Enterprises, Tiverton, Rhode Island
2000
Safety Manager. Larkin Enterprises. Responsible for personal safety of crafts under Larkin management.

Beaver Valley Power Station, Adecco-TAD, McCandless, Pennsylvania
2000
Instructor. Adecco-TAD. Instructor for general employee training and chemistry training development. Hired as outage trainer; retained as training developer.

Palisades Nuclear Plant, Larkin Enterprises, South Haven, Michigan
1999
Safety Manager. Larkin Enterprises, Inc. Safety manager for all scaffold activities for a refueling outage.

Dresden Power Station, G.D. Barri and Associates, Morris, Illinois
1999
Instructor. G.D. Barri and Associates, Inc. Re-certified as Instructional Technologist and Instructor. Presented fitness for duty, plant access, industrial safety and radiation worker training in support of a refueling outage.

Self Employed, Wilmington, North Carolina
1999
Marketing Representative. Contracted to Piedmont Management and Technical Services, Inc.

Wilmington Area Contractor Safety Council, Wilmington, North Carolina
1999
Instructor. Presented OSHA-based industrial safety and process safety management training to transient workers within the New Hanover County area.

Brunswick Nuclear Plant, Carolina Power and Light Company, Southport, North Carolina
1994-1997
Corporate Human Resources. Carolina Power and Light Company. Responsible for personal reliability screening and fitness for duty.

Diablo Canyon Nuclear Plant, Pacific Gas & Electric (PG&E), Avila Beach, California
1987-1994
Access Supervisor. PG&E. Responsible for all activities associated with the access authorization program, including escorted and unescorted access to all parts of the nuclear plant. Supervised all aspects of access authorization,

general employee training and emergency plan training. PG&E's representative to INDEX, a national database for tracking access authorization for transient workers.

Diablo Canyon Nuclear Plant, Pacific Gas & Electric (PG&E), Avila Beach, California
1984-1987
Senior Instructor / Project Manager / Safety Coordinator. PG&E. Project manager for the development and presentation of general employee training. Senior instructor for general employee training. Developed and implemented all procedures and training materials. Performed duties as safety coordinator and representative to PG&E Power Generation Safety Council.

Diablo Canyon Nuclear Plant, Pacific Gas & Electric (PG&E), Avila Beach, California
1981-1984
Employee Trainer / Safety Coordinator. PG&E. Responsible for maintenance of general employee training and the presentation of all access related training. Safety coordinator and representative to PG&E Power Generation Safety Council.

Various Project and Clients, Stone & Webster Engineering Corporation, Boston, Massachusetts
1980-1981
Sytems Analyst. Stone & Webster. Acted as the interface between computer engineering and the client users during development of plant equipment systems databases.

United States Navy
1967-1980
Thirteen year tour with various commands of the U.S. Navy. Qualifications included Engineering Watch Supervisor (and all subordinate watch stations), Machinery Division Chief Petty Officer, Nuclear Systems Repair Chief Petty Officer, Leading Engineering Laboratory Technician, and Radiological Controls Shift Supervisor. Acquired the final rank of Chief Machinist's Mate (submarines).

MARK P. McKEON, CHST

Regional Safety Manager

Construction Safety

Mark McKeon has worked in general construction, including projects on hospitals, college facilities, county jails and water reclamation facilities, as well as oil refineries, natural gas transfer stations, and electrical substations. Experienced in material purchasing, tool management, shipping and receiving, site safety management, and project management. Started as a laborer and worked up to an assistant project manager position, as well as being a safety manager.

Education
BS Business Administration, Winona State University, 2002
BA General Studies, Rochester Community and Technical College, 1999

Professional Registration

Total Years Experience
7

Joined Black & Veatch
2006

Professional Associations
ASP, 2009
Construction Health and Safety Technician, 2008
OSHA Authorized Outreach Trainer, 2007
NCCER, 2008

Language Capabilities
English

Representative Project Experience

Populus Terminal Transmission Partners (PTTP) Project, PacificCorp, Ogden, Utah
2009-Present
Safety Manager. Black & Veatch. Responsibilities include site safety orientation, client relations, managing safety files/paperwork, completing work area safety audits, attending weekly progress meetings, managing behavior based safety program, compiling site safety statistics, incident investigations, drug and alcohol screening, and safety oversight of direct hire employees.

Transmission Line and Switching Station Upgrade Project, PSE&G, Roseland and Metuchen, New Jersey
2008-2009
Regional Safety Manager. Black & Veatch. Responsibilities include review of site safety files, auditing site conditions, attending progress meetings, participating in pre-construction meetings, compiling site safety statistics, managing behavior based safety program, performing JHA/JSA reviews and drug and alcohol screening.

Middletown-Norwalk Singer Substation 115kV and 345kV Underground Project, United Illuminating, Bridgeport, Connecticut, OSHA Partnership Project
2006-2008
Safety Manager. Black & Veatch. Responsible for managing the OSHA Partnership, site safety orientation, client relations, OSHA partnership audits, managing safety files/paperwork, completing work area safety audits, attending weekly progress meetings, managing behavior based safety program, compiling site safety statistics, performing incident investigations, and drug and alcohol screening.

Godley Gas Transfer Station Project, Energy Transfer, Godley, Texas
2006
Site Safety Representative. Saulcon of Saulsbury Industries. Performed site safety orientation, incident investigations, site safety audits, daily safety tailboards, confined space permitting.

OSBL Propane Butane Treater Reconstruction Project, Conoco Phillips, Borger, Texas
2005-2006
Site Safety Representative. Saulcon of Saulsbury Industries. Site safety orientation, incident investigations, site safety audits, daily safety tailboards, confined space permitting, hot work permitting, H2S monitor testing and tracking, tool and equipment monthly inspections, daily progress reports on activities for the day.

Ultra Low Sulfur Diesel Unit Project, Flint Hills Resources, Rosemount, Minnesota
2005
Site Safety Representative. Harris Companies. Site safety orientation, incident investigations, site safety audits, daily safety tailboards, confined space permitting, hot work permitting, behavior based audits, daily JSA's, daily progress reports on activities for the day. Assist the Corporate Safety Director in ensuring compliance with all company safety policies and procedures, customer safety policies and procedures, and all applicable federal, state, and local regulations.

ULSD Unit Construction Project, Flint Hills Resources, Rosemount, Minnesota
2004-2005
Safety Specialist. Harris Companies. Responsible for site safety orientation, incident investigations, site safety audits, daily safety tailboards, confined space permitting, tool inspections and project safety meetings.

Various Projects and Clients, Rochester, Minnesota
2003-2005
Warehouse Coordinator / Area Safety Manager. Quality Mechanical of Harris Companies. Responsibilities included review project scope of work, schedule, and Job Start Safety Checklist with the Project Manager; assist the Corporate Safety Director in ensuring compliance with all company safety policies and procedures, customer safety policies and procedures, and all applicable federal, state, and local regulations; verify safety orientation status of each employee in the shop, including verification that all required training for the position is complete and current, and maintain records of all training received by employees at the site; provide specific training at the job site required to support the project as directed, and maintain records of all training provided at the site; assist the Corporate Safety Director in ensuring all required daily, weekly, and monthly inspections are completed and are accurate, and support the Corporate Safety Director by maintaining the files of all documentation resulting from these inspections; administer first aid at the shop, and interact with outside medical personnel when necessary; assist with the investigation of all accidents, incidents, and near miss incidents; prepare and implement job hazard analysis (JHA's) and job safety analysis (JSA's); perform weekly audits and follow up with the shop foreman on any corrective action items found during the audit, and ensure that corrective action is being taken in a timely manner as appropriate; coordinate off-site testing in accordance with company substance abuse program; manage safety supplies and equipment at the shop; material purchasing for small projects; and tool and equipment tracking for projects.

Gonda Building Mechanical Installation Project, Mayo Clinic, Rochester, Minnesota
2002-2003
Assistant Project Manager. Quality Mechanical of Harris Companies. Responsible for material purchasing and tracking, and updating drawings.