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Grimes Pipeline Project

Air Quality Construction Mitigation Plan (AQCMP)

Introduction

Purpose

This Air Quality Construction Mitigation Plan (AQCMP) describes a program for ensuring compliance with the requirements of the California Energy Commission's (CEC) Order Amending the Energy Commission Decision for the Sutter Energy Center to allow the construction of the Grimes Pipeline Project (97-AFC-02C). This plan provides measures that will be taken to reduce and control emissions of particulate matter (fugitive dust) and combustion contaminants from diesel-fueled construction equipment used during construction of the Grimes Pipeline Project.

The Grimes Pipeline Project AQCMP addresses the conditions of certification added by the CEC's order for construction of the Grimes Pipeline Project**.** The conditions of certification require preparation of this Air Quality Construction Mitigation Plan and detail steps and reporting requirements that will be taken to ensure compliance with the conditions for Construction Fugitive Dust Control, Dust Plume Response Requirements and Diesel-Fueled Engine Control.

Project Description

The Grimes Pipeline Project includes installation of a 2.8 mile pipeline within a 70-foot wide temporary construction right of way, construction of the Grimes Station metering site on a 0.8 acre construction pad, and construction of two unpaved construction laydown areas totaling 1 acre for parking, equipment and materials staging. Road and drainage crossings using either auger bore, horizontal directional drilling or trenching will occur within the pipeline right of way. Top soil and trench spoils will be stored along the right of way adjacent to the open trench. Figure 1 shows the locations of these project features. Access to the project site will be by paved and unpaved roads.

Construction will occur between August 1, 2011 and September 30, 2011.

Responsibilities

As required by the conditions of certification for the Grimes Pipeline Project, an Air Quality Construction Mitigation Manager (AQCMM), as approved by the CEC, will be responsible for ensuring that the required measures provided in this plan are successfully implemented during construction of the Grimes Pipeline Project. 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.

Contact information for the AQCMM, CPN Pipeline Company engineering and site managers, construction contractor and CEC Construction Compliance Manager are provided in Table 1.

Table 1 Contact Information for Grimes Pipeline Project Air Quality Compliance

Title	Name	Cell Phone	Office Phone
Air Quality Control Mitigation (AQCMM)	TBD		
CPN Engineering Project Manager	Chris Delaney	(916) 996-0156	(707) 3744-1516
CPN Construction Chief Inspector (CPN CCI)	TBD		
Contractor Construction Supervisor (CCS)	TBD		
CEC Construction Compliance Manager (CPM)	TBD		

Construction Fugitive Dust Control Plan

Construction Fugitive Dust Control Requirement, in order to reduce and control fugitive dust emissions from construction.

Control Measures

The following fugitive dust control measures include those specified and the Grimes Project Storm Water Pollution Prevention Plan for erosion control and control of wind blown dust.

1. The construction site entrances shall be posted with visible speed limit signs. No vehicle shall exceed 15 miles per hour within the construction right of way, the Grimes Station site, laydown areas, or unpaved access roads.

2. All construction vehicles shall enter the construction site through the updated entrance roadways unless alternative routes have been submitted to and approved by the Construction Project Manager (CPM).

3. All unpaved roads and disturbed areas in the construction right of way shall be watered as frequently as necessary to comply with dust mitigation requirements. The frequency of watering may be either reduced or eliminated during periods of precipitation.

4. All construction equipment vehicle tires shall be inspected and washed as necessary to be free of dirt and prevent track-out to paved roadways prior to entering paved roadways.

5. All unpaved exits from the construction site shall be graveled or treated to prevent track-out to public roadways.

6. 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.

7. 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.

8. A least 500 feet of any paved roadway exiting from the construction right of way or Grimes Station site shall be swept at least twice daily (or less during period of precipitation) when dirt or debris or run-off from the construction site is visible on the paved roadways.

Site Maintenance

The measures below are applicable to unpaved roads, Grimes Station site, laydown areas, and disturbed areas of the Grimes Pipeline Project construction site.

1. 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.

2. 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 stabilize or permanently covered with vegetation.

3. Consistent with the rules of the Feather River Air Quality Control District, there shall be no open burning of vegetation, trash or other materials.

Dust Plume Response Requirement

Monitoring

The AQCMM or an AQCMM delegate will monitor construction activities to ensure that dust control measures are implemented appropriately and effectively.

If visible dust plumes are observed with the potential to be transported (1) off the project site, (2) 200 feet beyond the centerline of the construction of linear facilities, or (3) within 100 feet upwind of any regularly occupied structures not owned by the project owner, the AQCMM or delegate will implement the following procedures for additional mitigation measures, as specified in the CEC condition.

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

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

- Step 3: The AQCMM or delegate shall direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation within one hour of the original determination. 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.

Diesel-Fueled Construction Engine Control

CEC Conditions of Certification requirements for diesel-fueled engine control for construction equipment are described below.

1. All diesel-fueled engines used in construction will use only ultra low sulfur diesel fuel (ULSD). ULSD is defined as diesel fuel which contains no more than 15 ppm sulfur.

2. All diesel fueled engines used in construction will have clearly visible tags issued by AQCMM confirming that the engines meet the specifications below.

3. All construction diesel engines with a rating of 100 hp or higher shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in CCR, 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. In the event that a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a Tier 1 engine. In event a Tier 1 engine is not available for any off-road engine larger than 100hp, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), 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" if, among other reasons:

    a. There are no available soot filter that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency for the engine in question; or
    b. The construction equipment is intended to be on site for ten days or less.
    c. The CPM may grant relief from this requirement if the AQCMM can demonstrate that they have made a good faith effort to comply with this requirement and that compliance is not possible.

4. The use of a soot filter may be terminated immediately if one of the following conditions exists, provided that the CPM is informed within 10 working days of the termination:

    a. The use of the soot filter 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.
    b. The soot filter is causing or is reasonably expected to cause significant engine damage.
    c. The soot filter is causing or is reasonably expected to cause a significant risk to workers or the public.

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

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

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

Monthly Compliance Reports

Fugitive Dust Control Requirements

Calpine will submit a Monthly Compliance Report (MCR) to the CEC. The AQCMM will maintain records and provide reports as required for submittal to the CEC. The MCR may be submitted electronically or on a disk.

The AQCMM will provide monthly a report to Calpine including a summary of all actions taken to maintain compliance with the applicable air quality conditions and the documentation listed below:

Fugitive Dust Documentation

1. A written summary of all actions taken to maintain compliance with dust and emission measures,

2. Copies of any complaints filed with the Feather River Air Quality Control Board in relation to project construction,

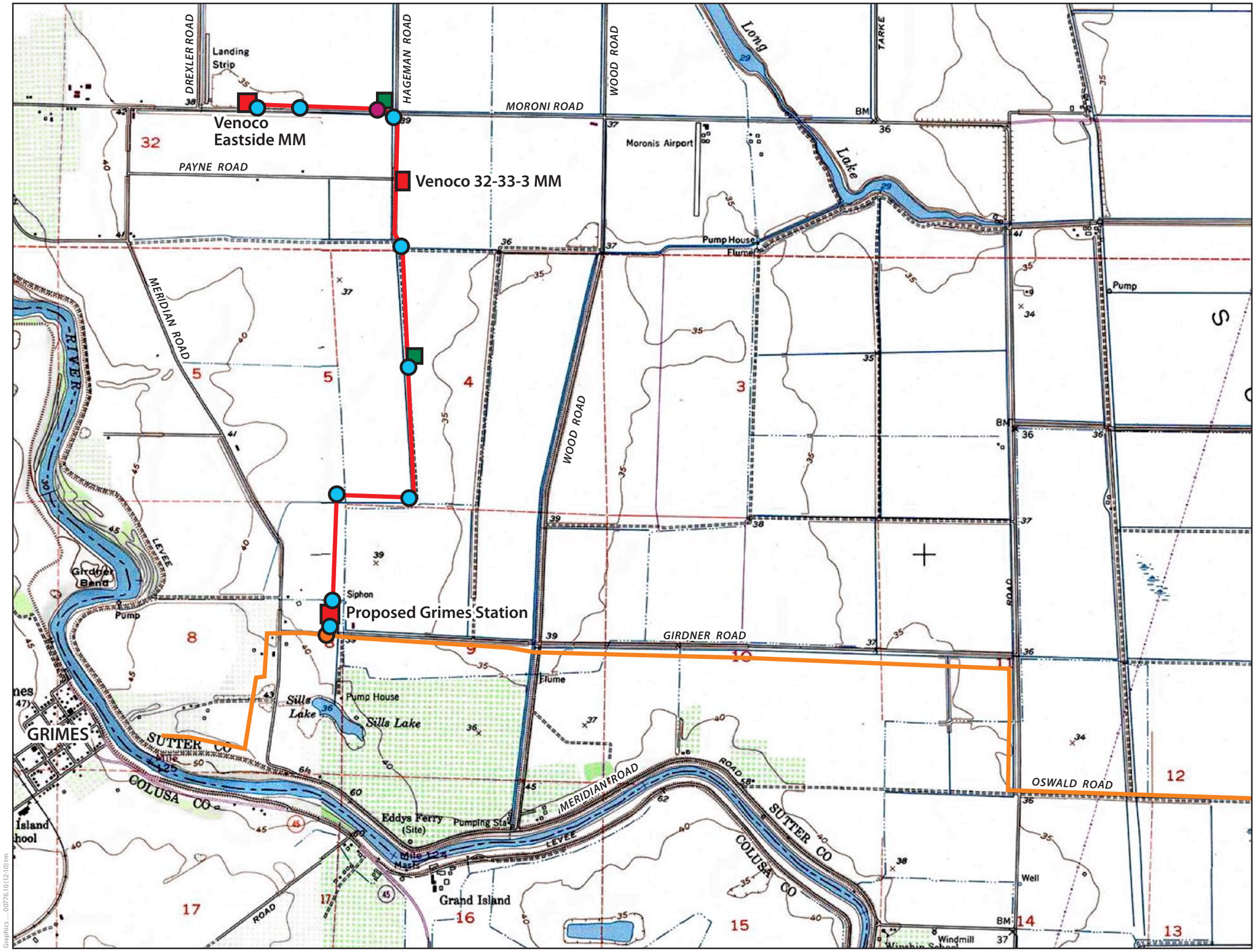
3. Other documentation deemed necessary by the CPM and AQCMM to verify compliance with fugitive dust control actions.

Diesel Fueled Engine Control Documentation

1. Summary of all actions taken to maintain compliance.

2. Inventory of all heavy equipment used on-site during the month, including the owner of the equipment and a letter from each owner stating the equipment has been properly maintained.

3. Other documentation deemed necessary by CPM and AQCMM to verify compliance.



Legend

- Proposed 6-inch Natural Gas Pipeline
- Existing 20-inch Sutter Energy Center Gas Pipeline
- Below Ground Hot Tap and Valve
- Proposed Construction Laydown Area
- Venoco's Existing Master Meter Sites and Proposed Grimes Station Site
- 4" Side Tap Valve
- Bore

N

1,000 0 1,000 2,000 3,000 4,000

feet

Scale = 1:24,000

Base Map:
National Geographic TOPO
Gilsizer Slough, CA (1973), Tilsdale Weir, CA (1973)

ICF INTERNATIONAL

Figure 1
Grimes Pipeline Project Location

Appendix A Fugitive Dust Control Logs

1. **Fugitive Dust**
2. **Street Cleanup and Sweeping**
3. **Watering Schedule**

Grimes Pipeline Project
Fugitive Dust Log

Date	Time	24-Hr Rainfall (Inches)	Max. 1-Hour Wind Speed (MPH)	Watering Required (Yes/No)				Street Swiper Required on Moroni, Hageman or Girdner Roads (Yes/No)	Dust Plume Observed (Yes/No)	Dust Plume Action Action Taken (Yes/No)	Operator
				Right of way	Grimes Station	Laydown areas	Upaved roads				

Contractor not responsible for dust in air caused by others.

Grimes Pipeline Project
Street Cleanup and Sweeping Schedule

Operator Name:								
Street:								
Week		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	am							
	pm							
	am							
	pm							
	am							
	pm							
	am							
	pm							
	am							
	pm							
	am							
	pm							

Operator Name:								
Street:								
Week		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	am							
	pm							
	am							
	pm							
	am							
	pm							
	am							
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	am							
	pm							
	am							
	pm							

Operator Name:								
Street:								
Week		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	am							
	pm							
	am							
	pm							
	am							
	pm							
	am							
	pm							
	am							
	pm							

Contractor not responsible for dust and mud on street caused by others.

Grimes Pipeline Project
Watering Schedule
for Project Areas

Provide the daily water applications at a single area recording total gallons per day and number of applications per day.

Operator Name:							
Area Treated:							
Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Operator Name:							
Area Treated:							
Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Operator Name:							
Area Treated:							
Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Contractor not responsible for dust and mud on roads caused by others.

Appendix B Diesel Engine and Maintenance Inventory Form

Grimes Pipeline Project
Diesel Engine and Maintenance Inventory

Engine Tab No.	Engine Type/Make/Model Number	Year of Manufacture	Engine Displacement	Horsepower Rating	Engine Emission Standard Certification