

A minimum five-year monitoring program with detailed success criteria regarding species cover, species composition, species diversity, wetland area and depth as compared with pre-construction conditions documented prior to construction by a qualified biologist such that the function of the affected wetland and hydrology is fully restored, the methods and results of which shall be described in the Plan. (These measures and the monitoring program below do not apply to work in rice fields or other cropped wetlands, since those will be returned to their agricultural crops.)

Page 4.4-83, Lines 17-21

Detailed contingency measures in case of restoration failure, as determined by the responsible agencies following the five-year monitoring period, requiring additional off-site wetland creation at a minimum ratio of 2:1 for created wetland acreage or as otherwise determined in the USACE 404 and RWQCB 401 water quality certification.

Riparian Avoidance and Restoration

Pages 4.4-85 to 4.4-87 (MM BIO-1c)

PG&E recommends the following modifications to reflect the fencing practices discussed above in BIO-1a, and to clarify that plants used in restoration efforts should be compatible with preconstruction conditions. (Pre-construction conditions may include undesirable non-native species, and therefore matching those conditions will not always be appropriate.)

Page 4.4-85, lines 5-6

Fencing limits of work where riparian vegetation is adjacent to work areas to prevent impacts

Page 4.4-85, lines 11-13

Riparian habitat within the ROW shall be identified by a qualified ecologist; mapped on construction plans; and where avoidable, fenced prior to construction/

Page 4.4-86, lines 31-32

Proposed native tree and shrub species that are compatible with pre-construction conditions.

Rare Plant Avoidance

Pages 4.4-120 (MM BIO-5)

PG&E suggests the following modifications to be consistent with the fencing practices discussed above:

Lines 13-14

~~Flagging, mapping, and fencing to protect any special-status plant species within the 200-foot-wide study area during construction.~~

Lines 26-31

Any rare plant species within the study area (including the 100 foot-wide right-of-way and a 50 foot-wide buffer zone on each side of the right-of-way, work areas, staging areas, and/or launcher/receiver stations) will be flagged, and accurately mapped on

construction plans, and fenced along the edge of the construction working limits to protect the area occupied by the species during construction, per APM BIO-3.

Vernal Pools and Swales

Page 4.4-79, lines 25-28

PG&E has committed to avoiding all vernal pools and swales during construction by using HDD or bore crossing methods to install the pipeline under these features, or by narrowing the ROW to avoid these features. Direct surface impacts to vernal pools or swales are not anticipated to result from clearing, grading, or trenching activities. Therefore, PG&E suggests deleting the reference to vernal pools and swales as follows:

... however, ~~several vernal pools and swales~~ and numerous seasonal wetlands, riparian wetlands, and other jurisdictional water features would be disturbed by trenching during project construction.

Review of Grading Permit

Page 4.4-84, lines 1-3

As PG&E is not required to obtain discretionary local permits, including grading permits, from county agencies, although it is required to obtain ministerial grading permits. Therefore, the referenced language should be modified as follows:

Prior to construction, responsible agencies (including the RWQCB, CDFG, and USACE, and County agencies) shall evaluate soil and grade restoration measures to be implemented along the ROW.

Invasive Species Control Program

Page 4.4-93, lines 19-21 (MM BIO-3)

PG&E agrees and commits to ensuring that vehicles used in pipeline construction off maintained roads will be cleaned prior to being used on the project, and again if taken from the project for use off-road prior to returning to the project. However, the requirements for vehicle steam-cleaning at each county border are impractical and unnecessary. There are no existing steam cleaning stations set up at these borders, nor would it be necessary or helpful to re-clean vehicles for instance at the Sacramento/Yolo County border where similar vegetation and crops are found to either side of the border, and vehicles will be moving continuously along the ROW across that border. Therefore, MM BIO-3 should be modified as follows:

Prior to Project initiation, all construction equipment shall be ~~steam~~ cleaned before ~~the equipment crosses any county border~~ to remove potential soil and/or water-borne contaminants before the equipment comes onto the Project and again if the equipment is used off-road before returning to the Project.

Typo

Page 4.4-93, lines 33-35

The referenced provision should be modified as follows:

Weed management procedures will be developed and implemented to monitor and control the spread of ~~week~~ weed populations along the pipeline.

Weed-free Certification

Page 4.4-94, lines 7-9 (MM BIO-3)

In MM BIO-3, the DEIR requires: "Fill material, soil amendments, gravel, etc. required for construction/restoration activities on land shall be obtained from a source that can certify the soil as being 'weed free.'" This mitigation measure is not feasible. There are no existing weed-free certification programs for soil or gravel, other than nursery potting soil. Since fill material will be from on-site re-use of excavated soils, coming from soil stockpiled for a given area, this measure is not needed nor practical, since the existing soils are not weed-free and should therefore be deleted.

Valley Elderberry Longhorn Beetle

Page 4.4-102, lines 1-7 (MM BIO-4a)

MM BIO-4a identifies mitigation measures to avoid or reduce impacts to the Valley Elderberry Longhorn Beetle. However, because this issue will be addressed in the permit from the U.S. Fish and Wildlife Service, PG&E suggests that the DEIR be modified as follows to allow PG&E and USFWS to determine the exact buffer zones that will be required in Temporary Use Areas. In addition, the proposed changes to the fencing requirements will be consistent with mitigation measure BIO-1a, discussed above, regarding wetland avoidance.

Elderberry shrubs shall be avoided to the greatest extent feasible. According to the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999), complete avoidance is assumed when a 100-foot (or wider) buffer is established and maintained around elderberry shrubs. PG&E's biological surveys indicate that the pipeline route will not come closer than 30 feet to any elderberry shrub, and the buffer zones in Temporary Use Areas will be coordinated with the U.S. Fish and Wildlife Service. For all shrubs that would be avoided, the following measures are required:

1. Buffer areas for elderberry shrubs will be fenced along the edge of construction work limits. The fencing shall be located in buffer zones coordinated with the USFWS. Protective fencing shall be erected around each elderberry shrub that would be avoided. The fencing shall be located no greater than 100 feet from the greatest dripline of the shrub.

Swainson's Hawk Monitoring

Page 4.4-104, lines 8-13

The DEIR requires construction to be halted within 0.25 miles of any nesting Swainson's hawks until the young have fledged. PG&E will obtain an Incidental Take Permit under section 2081 of the Fish and Game Code from the CDFG that will cover the potential for incidental take of Swainson's hawk. Therefore, PG&E suggests that the language be replaced as follows:

If nesting Swainson's hawks are found, project activities within 0.5 0.25 miles of the project, PG&E will implement any necessary protection measures as required by the CDFG in the Section 2081 Incidental Take Permit, to prevent nest abandonment or forced fledging as a result of Project activities will be delayed until the young have fledged. Swainson's hawk nest sites within 0.5 mile of active construction will be monitored by a qualified biologist to evaluate whether the construction activities are disturbing nesting hawks.

Construction Windows in Mitigation Lands

Page 4.4-105, lines 1-3 (MM BIO-4b)
Page 4.4-105, lines 10-12 (MM BIO-4b)
Page 4.4-105, lines 15-17 (MM BIO-4c)
Page 4.4-105, lines 26-29 (MM BIO-4c)

The DEIR limits construction activity in the Natomas Basin mitigation lands and the Sacramento River Ranch Conservation Bank mitigation lands to the period November through February when Swainson's hawk is not present. However, construction within giant garter snake habitat is limited to the period between May 1 and October 1. (DEIR, page 4.4-68, lines 6-9.) Since the two habitats may overlap, PG&E cannot possibly comply with the construction windows for both species. However, reverting to Alternative Option H, as suggested on page 4.4-105, lines 10-12 and 26-29, is not a viable option and may even increase impacts to Swainson's hawks and other nesting birds; as noted on page ES-10, Option H would result in an increase in the number of trees, wetlands, and riparian woodlands that would be impacted.

Because mitigation for the protection of nesting Swainson's hawks is addressed in MM BIO-4a, the construction windows for Swainson's hawk is unnecessary and requests that the provisions in MM BIO-4b and MM BIO-4c referenced above be deleted.

Rare Plant Avoidance

Page 4.4-120, lines 15-17 (MM BIO-5)

PG&E is not doing any roadway construction as part of this project. Therefore, the following bullet is confusing and should be deleted.

~~Limiting all proposed roadway construction to the existing roadway surface(s) where adjacent special-status plant species occur.~~

SECTION 4.5 CULTURAL RESOURCES

Area of Potential Effect

Pages 4.5-4 through 4.5-39

This section of the DEIR repeatedly uses the phrase "Area of Potential Effect." This is a term that is typically seen in documents referring to the National Historic Preservation Act term. To be consistent with other CEQA documents, PG&E recommends using the phrase Project Area or Study Area instead. Following are specific cites to places in the DEIR that use this language:

page 4.5-4, line 5

page 4.5-8, lines 20-21

page 4.5-21, line 31

page 4.5-22, lines 10, 13- 14, 17

page 4.5-23, line 33

page 4.5-24, line 16

page 4.5-25, line 15

page 4.5-28, line 24

page 4.5-35, line 31

page 4.5-36, line 5

page 4.5-39, line 4

Cultural Resource Studies

Page 4-5.1, line 10

This section states that three separate cultural resources studies were completed for the project, but it goes on to list six different studies. PG&E recommends changing the word "Three" to "Several" at the beginning of line 10.

Field Surveys

Page 4.5-3, lines 21-29

This section of the DEIR discusses pedestrian field surveys, but it does not address how sites were recorded. PG&E suggests the following revisions to provide a more complete and accurate description of the process:

All of the field surveys were conducted by qualified archaeologists meeting the Secretary of the Interior's Standards. Newly recorded resources were documented on California Department of Parks and Recreation form DPR 523 (1998), following *Instructions for Recording Historical Resources* (Office of Historic Preservation 1995). Any previously documented cultural resources within or immediately adjacent to the Project study area Area of Potential Effects (APE) were revisited during the surveys to confirm their locations and assess their present status. In some cases, the sites had been destroyed by modern development; in other instances, they were found not to extend into the Project area. Existing site records were updated on California Department of Parks and Recreation form DPR 523, as necessary. If existing documentation was adequate, or if the resources had been previously evaluated, the resource record was not updated. Historic linear features were recorded only if they possessed integrity; such features lacking integrity (such as modern roads overlain on historic-period roads, or upgraded power lines and railroad grades) or destroyed altogether were not recorded. ~~Ten new site records were created for ten buildings recorded during the architectural survey.~~

Public Consultation

Page 4.5-11, line 16, to page 4.5-12, line 3

This section regarding public consultation appears to be misplaced in the Results section; PG&E suggests that it be moved to the methodology section.

Eagle Hotel

Page 4.5-36, lines 13-19 (APM CR-3)

PG&E suggests the following modifications to this language to provide more specific information regarding the geo-archaeological study and monitoring activities:

PG&E will complete a geo-archaeological study of areas identified as sensitive for buried resources, as well as backhoe testing at test the reported location of the historic Eagle Hotel, and other areas identified as sensitive for buried archaeological remains identified by a geo-archaeologist, prior to construction by backhoe trenching. All trenching will be supervised by a qualified professional archaeologist and/or geo-archaeologist. If the study is not completed by construction, an archaeologist will monitor any ground disturbing activities in these areas. If resources any buried materials are identified during either the geo-archaeological study or during construction uncovered, work will stop temporarily at that location, until a qualified archaeologist the monitor can assess the find and determine the appropriate action.

Impacts to Paleontological Resources

Page 4.5-40 and 4.5-41

In the Project Description of the DEIR, it states that CSLC has identified mitigation measures throughout section 4 that are "required to reduce potentially significant impacts to less than significant levels." (Page 2-81, lines 4-5.) In most cases, the DEIR states that the mitigation measures would reduce the impacts to less than significant. However, in the cultural

resources section, the DEIR does not make an explicit statement to that effect. This oversight can be corrected by adding the following clarifying language:

Page 4.5-40, lines 20-21 (PALEO-1)

... These tasks would enhance subsequent evaluation and curation by the chosen repository. With incorporation of MM PALEO-1, impacts to potential resources would be less than significant.

4.5-41, lines 25-26 (PALEO-2)

... be properly curated and available to present and future generations of research scientists and students. With incorporation of MM PALEO-2, impacts to potential resources would be less than significant.

Impacts to Unknown Cultural Resources

Page 4.5-43, lines 5-21 (MM CR-1)

PG&E has already surveyed most of the alternatives where it had access. In addition, implementation of APMs CR-1 through CR-5 clearly identify steps to be taken if any unknown resources are identified. Therefore, PG&E suggests the following revisions to MM CR-1:

Alternative Option Pre-Construction Cultural Resource Surveys. If an Alternative Option becomes the preferred route, to ensure protection of undiscovered cultural resources, pedestrian field surveys will be conducted for areas all Alternative Options that were not included in the original field survey efforts. The surveys will be conducted by qualified archaeologists meeting the Secretary of the Interior's Standards and utilizing appropriate transect intervals, typically 15 to 20 meters, walked in a zigzag pattern to ensure complete coverage of the Alternative Options Area of Potential Effects (APE). Previously recorded cultural resources located within or immediately adjacent to the Alternative's APE would be re-located and their current condition described and recorded on Department of Parks and Recreation (DPR) update forms. Any previously unknown cultural resources discovered during the course of the Alternative Options surveys would be evaluated for historic significance if the resource will be impacted by the Project and recorded on appropriate DPR forms. In cases where significant impacts would be unavoidable, resource specific, appropriate mitigation would be required to reduce these impacts to less than significant levels as described in APMs CR-1 through CR-5.

Impacts of Alternatives

**Page 4.5-43, lines 22-23; page 4.5-44, lines 3-4
page 4.5-45, lines 25-26; page 4.5-47, lines 3-4
page 4.5-47, lines 19-20; page 4.5-48, Table 4.5-2**

On page 4.5-43 line 5, the DEIR describes pre-construction surveys to be conducted for all alternative options not already surveyed, and concludes that with implementation of the APMs and CR-1, the impact for Options would be less than significant (page 4.5-42, line 29). The DEIR concludes that the cultural resource impacts of Options A, B, D, E, and H would be greater than under the proposed project. However, the basis for this conclusion is unclear since surveys have not been conducted for these options. The DEIR also indicates that Options F, I, and J would have fewer cultural/historic impacts than for the proposed Project. However, since the proposed Project does not have any known cultural resources

impacts after mitigation, it is unclear why these three options would have even fewer impacts. PG&E recommends that the referenced statements be deleted and that Table 4.5-2 be updated to reflect these changes.

SECTION 4.6 GEOLOGY AND SOILS

Earthquake Faults

Page 4.6-39, line 3, to page 4.6-40, line 8 (MM GEO-1)

The DEIR acknowledges that the pipeline is not in designated earthquake fault zones (page 4.6-23, lines 24-27) and that the area has a historic record of low to moderate seismicity (page 4.6-39, lines 4-5). However, Mitigation Measure GEO-1 would require further seismic field investigations to evaluate surface fault rupture hazard and the development of a computer model to evaluate pipeline design. The DEIR overlooks the fact that the CPUC has sole and exclusive jurisdiction over pipeline design standards. Moreover, the requirement for further field studies appears to be based on a misunderstanding of the potential surface impacts of these types of faults. The main seismic design concerns for this pipeline are potential stresses due to traveling wave effects and potential strains due to liquefaction-induced permanent ground displacements, not displacement on buried faults at depth.

The DEIR notes that Willows fault is not considered "active" or even "potentially active." (See page 4.6-23, lines 1-5.) It also notes that the Dunnigan Hills and Great Valley faults do not reach the surface. (Page 4.6-38, lines 23-25.) As such, these faults, at most, would be associated with broad tilting of the land surface rather than discrete surface fault rupture. Modern pipelines are designed to withstand such distributed deformation, and further field investigations is unlikely to yield any benefit.

As stated elsewhere in the DEIR (page 4.6-23, lines 19-27), and illustrated on Figure 4.6-4, the ground shaking hazard for the pipeline alignment is based on the probability of earthquakes on all faults in the region, not the three faults crossed by the pipeline. Any pipeline route proposed in this area would experience similar ground shaking hazard. Therefore, PG&E proposes the following changes to the language in Impact GEO-1, Mitigation Measure GEO-1, and the supporting rationale to specify the type of analysis that should be performed:

Due to the regional tectonic setting ~~proposed pipeline crossing of the three faults~~, the Project area is subject to ground shaking due to earthquakes. Historically, the area has experienced a low to moderate seismicity. The Project could be exposed to ground motion due to a seismic event or any resulting phenomenon such as liquefaction or settlement that could substantially damage structural components.

MM GEO-1 Site Specific Seismic Analysis ~~Field Investigation~~

To determine the traveling wave effects PG&E will develop calculations for the pipe bending stresses due to traveling seismic waves in long straight runs of the pipeline using industry accepted procedures (American Lifelines Alliance "Guidelines for the Design of Buried Steel Pipe", PRCI "Guidelines for the Seismic Design and Assessment of Natural Gas and Liquid Hydrocarbon Pipelines, and ASCE, "Guidelines for the Seismic Design of Oil and Gas Pipeline Systems").

To determine the effect of liquefaction, PG&E will undertake buried pipeline deformation analysis to assess the effects of liquefaction-induced permanent ground displacements for various scenarios. The various scenarios will be dependent on soil conditions and depth of cover, pipe-soil spring properties, amplitude and distribution of the ground displacement profile due to liquefaction and the location of any significant geometry change features along the alignment in the areas of interest. The maximum pipe tension and compression strains developed in the analysis models will be compared to appropriate strain limits (PRCI, "Guidelines for the Seismic Design and Assessment of Natural Gas and Liquid Hydrocarbon Pipelines") to develop a demand vs. capacity assessment.

If the analysis yields results below the designed pipelines specified minimum yield strength, the analysis will be summarized and concluded. If the stresses are above the SMYS, further review will be required. Further review may include reviewing the current pipeline design criteria or performing further site-specific seismic field investigations.

~~PG&E shall perform a site-specific seismic field investigation as part of its detailed design phase for the proposed Project. The field investigation would determine whether any engineering/design solutions are needed to mitigate against any hazards of seismic displacements along the fault crossings. If the field investigation determines the presence of any active faults in project location, then the following shall be completed:~~

~~PG&E shall determine the engineering/design solutions that are appropriate to mitigate against the hazard of seismic displacements along any active faults.~~

~~PG&E shall develop a computer model to determine the soil-pipe interaction with the proposed applied displacement. The model would evaluate various combinations of pipe wall thickness and pipe grade to determine which pattern yields the best performance under displacement conditions. The design shall also incorporate additional methods as necessary.~~

~~PG&E shall design the proposed pipelines and any other proposed facilities using industry CPUC standards for seismic-resistant design in liquefaction-prone areas.~~

~~PG&E shall provide a copy of the final design, as well as any related geotechnical information, to the CSLC before construction of the proposed Project.~~

~~A certified engineering geologist shall observe the construction excavation in the vicinity of the fault crossings to verify the presence or absence of surface deformation that the design assumptions are valid and the design measures (if any) are centered in the correct location.~~

Rationale for Mitigation

~~The seismic field investigation would determine whether engineering/design solutions are needed to mitigate against any hazards of seismic displacements along the fault crossings. Any necessary Standard industry design features would ensure strength and ductility of the pipeline facilities in order to reduce the potential impacts associated with displacement caused by surface faulting and liquefaction.~~

Typo

Page 4.6-5, line 25

... feature created by the displacement of this unit extends to within less than ~~then~~ 2 miles of. . .

Typo

Page 4.6-19, lines 13-14

... these stresses cause strain to build up in the earth's crust ~~eurst~~ until enough strain has built up to exceed the strength along a fault and cause ~~ease~~ a brittle fracture. The slip . . .

Typo

Page D.4.6-23, line 7

... discontinuous tonal ~~total~~ lineaments near the base of the northeast-facing escarpment of . . .

SECTION 4.7 HAZARDS AND HAZARDOUS MATERIALS

System Safety

Pages 4.7-32 to 4.7-37 (MM HAZ-2)

The DEIR uses a statistical approach to analyze the potential impact of serious injury and fatalities due to project upset, but the accuracy of the results is highly dependent on the underlying assumptions. PG&E has contracted for an independent review of the DEIR's System Safety and Risk of Upset Report, which is attached as Appendix A. This report finds that the CSLC's risk assessment to be generally credible, but it identifies some data inconsistencies and some statements that appear to be in error. PG&E suggests that CSLC and its consultant review the attached report and rerun the risk calculations on Table 4.7-5 to reflect these comments.

The DEIR references a protocol developed by the California Department of Education to perform a risk assessment for schools to evaluate the risk associated with PG&E's Project. (DEIR, page 4.7-32, lines 16-17.) However, this approach is not widely accepted in the pipeline industry because it is not suited for use with a linear facility. The Office of Pipeline Safety, Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA), which has primary jurisdiction over safety standards for pipelines, uses a population density approach to establish design standards. PG&E has designed the Project to meet federal standards and strongly believes that those standards are sufficient to ensure public safety.

In addition, the DEIR uses DOT reportable incidents to determine the frequency rate of various types of incidents. (DEIR page 4.7-6, lines 8-30.) However, this approach does not adequately take into account the specific attributes of the proposed project. Incidents reported to the DOT include all types and vintages of transmission pipelines. Advances in construction materials and techniques, such as modern coatings and radiographic inspection of welding, as well as improvements in cathodic protection monitoring and integrity management plans, render PG&E's proposed project much less susceptible to risk. While the DEIR recognizes the advantages of modern pipelines, it is not adequately reflected in the calculation of risk. In the absence of data sufficient to quantify the difference in incident frequencies based upon pipeline attributes, it would fall to reason that the proposed modern pipeline would far exceed the national average for incident rates of 1×10^{-5}

fatalities per mile year. Yet the result of the study is 6.1×10^{-5} , which is roughly 6 times greater than the national average.

For example, in addition to the pipeline inspection frequencies listed in Table 4.7-7, PG&E will install remote monitoring of cathodic protection potentials at approximately one-mile intervals along the route. This will provide real time data of the cathodic protection system and allow for a timely response to make corrections. This application of technology is very recent. The risk of incident due to corrosion utilized in the DEIR's analysis should be significantly reduced when applied to the proposed project since the vast majority of the pipelines in the data set would not have remote CP monitoring capability.

Determining High Consequence Area

Pages 4.7-14 and 4.7-15

PG&E requests that the DEIR be clarified as follows to reflect that PG&E has adopted method two for determining High Consequence Areas:

Page 4.7-14, lines 13-14

The HCAs may be defined in one of two ways. Both methods are prescribed by 49 CFR 192.903. PG&E adopts method two (Potential Impact Circle) as its chosen method for determining HCAs in relation to its transmission system.

Page 4.7-15, lines 6-7

In the second method (PG&E's adopted method), an HCA includes any area within a potential impact circle that contains:

Pipeline Design Requirements

Page 4.7-18, lines 10-20

As a CPUC-regulated public utility, PG&E must comply with state and federal pipeline design requirements and is not bound by other guidelines. Therefore, PG&E requests that the above-referenced language be deleted from the DEIR.

Emergency Plans

Page 4.7-31 (MM HAZ-1)

As written, this mitigation measure would require clearing 25 feet outside of the permanent right-of-way and the temporary use area. In addition, minor corrections need to be made to the referenced operational stations. PG&E recommends correcting this mitigation measure as follows:

Lines 11-13

Maintain all areas clear of vegetation and other flammable materials for at least a 50 25-foot-radius of any welding or grinding operations, or the use of an open flame.

Line 27-29

Require the contractor to use dedicated fire watch during all hot work within the existing operational stations (e.g., Concord Capay or Sacramento Yolo Station).

Pipe Grade

Page 4.7-36, lines 9-12

The DEIR should be corrected as follows to reflect the correct pipe grade:

... A large proportion of the proposed pipeline would consist of 0.375-inch-wall thickness steel pipe (Grade X-60-65) designed for a Maximum Allowable Operating Pressure (MAOP) of 975 pounds per square inch gauge (psig). . . .

Corrosion Mitigation

Page 4.7-37, lines 12-17 (MM HAZ-2a)

PG&E strongly disagrees with the requirement to perform a baseline smart pig inspection within the first six months of placing the pipeline into operation. PG&E's Integrity Management plan, in full compliance with the State of California's General Order 112E and 49 CFR Part 192.921 Subpart O, states that newly installed pipe that are HCA's or newly identified HCA's must be scheduled for assessment within 10 years from the date the pipe is installed or the new HCA identified. For new pipe, a post-installation pressure test per subpart J of 192 should be used as the baseline assessment. Therefore, PG&E proposes the following modification;

PG&E shall prepare and implement an Operation and Maintenance Plan in accordance with the requirements in Title 49 CFR part 192. The plan shall include a post installation pressure test per 192 subpart J ~~Within the first 6 months of placing the pipeline into operation, PG&E shall conduct a baseline internal inspection with a high resolution instrument (smart pig) of the pipeline~~ in order to obtain baseline data for the pipeline.

Corrosion Mitigation

Page 4.7-37, lines 18-23 (MM HAZ-2a)

PG&E takes exception to this section of MM HAZ-2a as it relates to baseline inspections and intervals. The DEIR's proposed inspection requirements are unwarranted under the federal law cited by the DEIR in their request for ILI inspections. Additionally, by focusing limited state authorized funding for discretionary pipeline inspections on our newest pipeline, the DEIR's proposal will have the unintended consequence of increasing risk on the rest of our transmission system.

The proposed requirements are unwarranted because there is no requirement in the cited 49 CFR Part 192 to perform regular subpart O assessments of pipelines in non HCA areas. There is no requirement in 49 CFR Part 192 to perform assessments of HCA area piping within 6 months of identification of an HCA. There is no requirement in 49 CFR Part 192 to perform an assessment within 6 months of another assessment (PG&E's pressure testing of the line prior to placing it into service will meet the assessment requirements of 49 CFR Part 192) It is a violation of 49 CFR Part 192 to select an assessment technology for HCA assessments without regard for the potential threats as the DEIR proposes. 49 CFR §192.921 requires "An operator to select the methods best suited to address the threats identified to the covered segment."

Only a few very small areas around the proposed pipelines meet the requirements of high consequence areas as defined by 49 CFR §192.903 method 2. Other inspections of this pipeline are discretionary. Non-mandatory inspections of at risk lines are authorized by the state through a program that focuses on the most at risk pipelines within the PG&E system. The program funding is also authorized by the state, but it is not unlimited. These brand new line pipelines are clearly and obviously not the most at risk lines within the PG&E system. By

using the limited funding available for non mandatory inspections to assess brand new pipelines, the DEIR is increasing the risk of failure for older, more at risk pipelines.

Installation of Automatic Shutdown Valves Page 4.7-38, lines 10-20 (MM HAZ-2b)

The proposed mitigation measure requires PG&E to install Automatic Shutdown Valves in three locations. PG&E has evaluated the use of remote control valves and automatic shut-off valves (RCV-ASV) as required by code section (§192.935(c)) for any high consequence areas, which states:

(c) Automatic shut-off valves (ASV) or Remote control valves (RCV). If an operator determines, based on a risk analysis, that an ASV or RCV would be an efficient means of adding protection to a high consequence area in the event of a gas release, an operator must install the ASV or RCV. In making that determination, an operator must, at least, consider the following factors—swiftness of leak detection and pipe shutdown capabilities, the type of gas being transported, operating pressure, threat of potential release, pipeline profile, the potential for ignition, and location of nearest response personnel.

After completing the review, PG&E agrees that installing such valves may be an efficient means of adding protection. However, PG&E strongly believes that using RCV's rather the ASV's is a better approach. Use of ASV's does not yield any additional protection beyond that realized by RCV's, and ASV's pose a concern of an unintended closure, which could lead to greater safety and reliability problems.

Lines 406 and 407 are part of a transmission pipeline network, which experiences a wide range of flow and pressure variations during normal operations. Since an ASV's are programmed to operate based upon flow and or pressure variations, the ASV could operate during normal conditions, causing an unplanned outage of customers in Yolo, Sacramento, El Dorado, Placer, Sutter, Yuba, and Nevada counties served by the proposed project. Large outages present the threat of customers relighting their own pilots, which could result in higher risks resulting from improper re-lights by customers

Additionally, activation of an ACV limits the response scenarios available to PG&E. With RCV's, PG&E personnel can lower the operating pressure of the pipeline to reduce the threat of damage while activating alternative supplies. PG&E can also provide temporary supplies downstream of the incident that could support customers, and then shut down the line after these supplies are in place. If the pipeline must be shut down, deferring this shutdown for a short period of time is sometimes prudent so that customers can be shut down in an orderly and safe manner.

Based upon the above, PG&E suggests the following changes.

PG&E plans to install remote operated valves at the Capay Station and the Yolo Junction Station, which would help to control the flow of gas into Lines 406 and 407. PG&E shall install automatic remote operated shutdown valves in three locations: Power Line Road MLV Station No. 752+00 (which includes the Riego Road Regulating Station), Baseline Road/Brewer Road MLV Station No. 1107+00, and Baseline Road Pressure Regulating Station No. 1361+00. These automatic-remote operated shut

down valve locations would enhance public safety protection in the planned populated areas, which include schools and other existing and planned developments.

SECTION 4.8 HYDROLOGY AND WATER QUALITY

Unanticipated Release of Drilling Fluids

Page 4.8-18, line 17 (MM HWQ-1)

The DEIR requires PG&E to monitor turbidity downstream of the drill site. PG&E is required to obtain a permit from the Regional Water Quality Control Board, which will specify the required monitoring. Therefore, PG&E suggests the following modification to this mitigation measure:

Monitor water quality including turbidity in accordance with applicable Regional Water Quality Control Board permits. downstream of the drill site

Unanticipated Release of Drilling Fluids

Page 4.8-18, lines 25-26 (MM HWQ-1)

The DEIR requires PG&E to use non-toxic fluorescent dye in the drilling mud to allow easier identification of frac-outs." However, drilling fluid is often used by farmers as an additive to their soils, and the addition of fluorescent dye will render the drilling fluid unusable to the farmers. Therefore, PG&E requests that this requirement be deleted.

Verify Well Locations

Page 4.8-20, lines 18-31 (MM HWQ-2)

The DEIR contains a mitigation measure to protect the supply of water in the vicinity of construction. PG&E suggests that this mitigation measure be modified as follows to enable PG&E to use a professional hydrogeologist to identify wells that need to be tested.

Prior to construction of the proposed Project, well locations within 200 feet of the excavation, construction staging areas, and aboveground facility locations shall be verified by PG&E through field surveys to determine if private water wells and water pipelines are currently in use and if their area of influence intersects the proposed Project site. This survey will be conducted by a licensed professional Hydrogeologist, who will determine any potential impacts from construction. Based on his professional opinion, wells will be tested as needed. With the landowner's permission, PG&E shall test the wells to determine the baseline flow conditions and monitor these wells during construction of the proposed Project. If, through monitoring, it is determined that Project construction is affecting well production, PG&E shall cease construction activities or arrange to supply water at the well location and consult with the landowner. Surveys shall be conducted by PG&E prior to construction to ensure that any unidentified springs are avoided during construction.

Flood-Proof Facilities

**Pages 4.8-21, line 23, to 4.8-22, line 2 (HWQ-3)
Page 4.8-34, lines 30-34; Page 4.1-13, lines 15-18**

The DEIR requires PG&E to place any pump stations and valve housing that are located within the 100-year flood zone at least 1 foot above the 100-year storm floor profile level. Because the stations have been designed to prevent an overpressure of the pipeline system in the event of a flood, PG&E requests that the requirement for elevating structures be

deleted. The text of the HWQ-3 should be modified, along with corresponding changes in chapter 4.1:

Pages 4.8-21, line 23, to 4.8-22, line 2

... Mitigation is proposed below to flood-proof any structures proposed to be constructed within a 100-year floodplain. Both proposed structures would be no more than 10 feet in height ~~without the flood-proofing. Flood-proofing would require the structures to be raised approximately 1 foot above the 100-year storm flood profile level.~~

Mitigation Measures for Impact HWQ-3: 100-Year Floodplain

MM HWQ-3 Flood-Proof Pump Houses Within 100-Year Floodplain. If any structures (pump stations, aboveground valve housing) associated with the buried pipeline are placed within the 100-year flood zone, the structure shall be "flood-proofed" in their foundation design ~~and raised in elevation to a minimum of 1 foot above the 100-year storm flood profile level,~~ to reduce the risk that they would be damaged during such an event.

Page 4.8-34, lines 30-34

... MM HWQ-3 would require the flood proofing of any structures associated with the above ground stations, ~~including but not limited to, the elevation of structures to 1 foot above the 100-year storm flood profile level.~~ Implementation of MM HWQ-3 in both the proposed project and Option H would reduce impacts to less than significant.

Page 4.1-13, lines 15-18

Regulating Station and the Powerline Road Main Line Valve structures would be constructed within the 100-year floodplain and would be no more than 10 feet in height ~~without the flood-proofing. The mitigation requires that the structures be raised approximately 1 foot above the 100-year storm flood profile level.~~

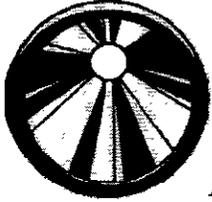
Thank you for the opportunity to comment on this DEIR. If you have any questions or would like to discuss these comments please contact me at your convenience.

Sincerely,



Chris Ellis, AICP
Principal Planner
Pacific Gas and Electric Company

Enclosure



Kiefner & Associates, Inc.

June 12, 2009

Mr. Scott Clapp
Gas Transmission Systems
130 Amber Grove Drive, Suite 134
Chico, California 95973

Re: Review of EIR for PG&E Lines 406 & 407

Dear Mr. Clapp:

In accordance with your request, I have reviewed certain documents that are part of the Draft Environmental Impact Report (EIR) for Pacific Gas & Electric (PG&E) Lines 406 and 407 proposed for construction between Esparta, Yolo County and Roseville, Placer County, CA. Lines 406 and 407 are to be constructed from 30-inch OD line pipe and will transport natural gas at a pressure of 975 psig. The pipeline route will cross primarily Location Class 1 (rural) areas, although it will also traverse Location Class 2 and Class 3 areas having greater amounts of development in the vicinity of the pipeline. The Location Classes are determined by the amount of land development in the vicinity of the pipeline as defined by Federal pipeline regulations contained in Code of Federal Regulations Title 49 – Transportation, Part 192 – Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards (49, CFR 192, or “Part 192”). The intrastate Lines 406 and 407 are under the jurisdiction of the California Public Utility Commission (CPUC) which has adopted 49 CFR 192 and enforces to its provisions. The pipelines will be designed, constructed, operated, and maintained accordingly.

The focus of my review was a risk assessment performed by EDM Services, Inc. Overall, I found that the results of the risk assessment were credible and not inconsistent with other risk assessments that have been performed by other parties concerning similar pipelines. However, I also discovered some data presented in EDM’s analysis that was inconsistent with other sources of data, and some statements or opinions that I did not fully agree with and which reasonable people might hold a difference of opinion over. Although these variances in raw data or interpretation imply that some numerical results might change, these would not necessarily alter the overall conclusions or invalidate the assessment.

The Table 1 below lists specific data presented, or statements made, in the Draft EIR dated April 13, 2009 and my comments in response. Additional tables summarize some data I used to evaluate EDM’s analysis.

Table 1. Comments on the Draft EIR Risk Assessment

Reference page or section	Comment
Section 2.1.2 bottom of page 2	Add closing statement: "Other portions of the regulations are prescriptive."
Section 4.1.1, page 11	5,000 Btu/ft ² -hr, 1% mortality corresponds to 30 seconds unabated exposure. An able-bodied person would take actions to increase the separation distance or seek cover during that 30 seconds. 3,500 Btu/ft ² -hr, 10-second exposure does not correspond to 15% probability of fatality. According to Hymes (1983) a 45-second exposure corresponds to 1% mortality.
Section 4.1.2, page 13-14	Reference to 1970-1984 pipeline incident data is arguably not relevant because the data is 25-39 years old and standards and regulations for both new construction and the operation of existing lines have changed substantially. Changes are notable in the areas of fracture control for new pipe, routine use of ILI, adoption of damage prevention practices, and integrity management planning for high consequence areas, none of which were prevalent in 1970-1984.
Section 4.1.2, page 14-15	We get values that are close but not identical to those reported by EDM. For 1988-2008, we see 0.037 injuries and 0.0064 fatalities per 1,000 mi-yrs, compared with 0.040 and 0.010 reported on page 14 for 1986-2007. PHMSA's data web page for 1988 through 2008 tallies 382 "significant" incidents (same criteria as "reportable" incidents) for onshore gas transmission (323) and gathering (59) lines. This is much less than the 761 incidents stated on page 15 for 2002-2007. We get 0.18 incidents per 1,000 mi-yrs instead of the 0.42 incidents per 1,000 mi-yrs on page 16. However we get 0.019 injuries and 0.0033 fatalities, about the same as the 0.019 and 0.004 stated on page 15.
Figure 4.1.2-1, page 16	Using the tallies on PHMSA's data web page, the upper curve should vary between just above 0.10 and just below 0.30.
Page 17	We get 0.18 reportable incidents per 1,000 mi-yrs, not 0.29 for onshore gathering and transmission lines.
Pages 18-20	The US and CA hazardous liquid pipeline incident data may not be appropriate for evaluating the risk or threat associated with natural gas pipelines. Certainly pipelines in both categories are constructed from similar materials and to a layman would appear to present similar issues. However, they differ significantly in terms of operation, characteristics of transported products, failure modes, and consequences of a

	failure.
Page 21	Many of the factors in the bulleted items can be reasonably attributed to features associated with older pipelines and construction methods. Frequencies of these factors should be adjusted to reflect rates of occurrence appropriate to the features of modern pipeline design and construction.
Page 23	The first paragraph provides for a 30% reduction in damage by outside forces based upon the added depth in the pipeline design. Additional reductions should be included to address other relevant issues such as resistance to immediate penetration from equipment afforded by the heavy wall thickness and large pipe used with this project, as well as the overall record of new large-OD pipe in Class 3 areas. Refer to discussion for Page 57, below.
Page 27	PG&E will be installing remote monitoring of cathodic protection potentials at approximately 1-mile intervals along the route. This will provide real time data of the cathodic protection system and allow for a timely response to make corrections. The risk of incident due to corrosion should be significantly reduced.
Pages 29-30	It is unclear why LPG pipelines are discussed (page 30). PHMSA's incident data for LPG pipelines are not intermixed with data for natural gas lines, nor are LPG pipelines part of the proposed construction. Does Table 4.1.3-2 (page 29) include LPG lines, and if so, why?
Page 30	<p>The assertions that a release in an urban area is likely to cause more significant impacts to humans than a release in a rural area, and that the risk is understated for an urban area and overstated for a rural area both seem correct at first glance but appear to overlook some important factors.</p> <p>It is true that a worst-case scenario in an urban location would have greater consequences than a worst-case scenario in a rural location. But the probability of a worst-case scenario is greater in a rural location due to the higher operating stress levels and typically thinner wall pipe used in rural areas. It is noted for example that Class 3 lines comprise 11% of total gas pipeline mileage and 14% of gas pipeline reportable incidents, but there has only been one fatality caused by a Class 3 pipeline since 1989. Since 2002, there have been no fatalities in Class 3 or 4 and only one in Class 2. The heavier wall and lower operating stress does affect the susceptibility to failure and can affect its mode. Most major natural gas pipeline failures in the US have occurred in rural areas, e.g. Carlsbad. Also, Class 3 would automatically be designated a High Consequence Area (HCA)</p>

	and therefore would be subject to special integrity management planning rules that most portions of Class 1 and 2 lines would not be.
Baseline Frequency, page 31	We would use 0.18 incidents per 1,000 mi-yrs.
Indoor explosions, page 43	This does not reflect real modes of failure. Migration of gas to interiors of occupied buildings is primarily a concern with distribution piping systems which exist in close proximity and relatively low pressure. A leak at the operating pressure of 975 psig would blow a hole in the soil and vent the gas. Also, a leak would not tend to precede a rupture of the pipe.
Page 49, bottom of page	Statement that the “frequency of serious injuries or fatalities ...are extremely low due to the rural areas...” implies that the expected frequency would be greater in the more developed areas which is not supported by the data.
Page 52, first full paragraph	Statement that “should population or traffic volumes increase...the likelihood of serious injuries and fatalities would increase accordingly” does not account for changes in pipe wall, HCA designation, and IMP activity that offset increased risk by reducing likelihood of an incident. Note zero fatalities in Class 3 and 4 areas.
Page 55, HAZ-1a	A stated mitigation is for pipe to be manufactured in year 2000 or later. 49 CFR 192 currently requires pipe to comply with 43 rd (2004) or 44 th (2008) editions of API 5L. Pipe mills currently only monogram pipe to 44 th Edition, so pipe must be 2008 vintage or newer. From a practical standpoint, it will be brand new pipe.
Page 57, third-party damage	30-inch OD x 0.375-inch WT X65 pipe provides resistance to immediate penetration by equipment at the 98 th percentile in terms of size or weight (about 73 T). The 0.500-inch WT specified for Class 3 areas would resist an even larger machine (120 T) that is not used in general construction. It is noted that the one fatal incident in Class 3 pipe that occurred in 1997 had 0.281-inch WT which is resistant to machines only up to 45 T which are more common.

Some supporting data from PHMSA’s website data summary page or downloadable data is summarized below. Table 2 summarizes “reportable” or “significant” incident data from 2002-2008 for natural gas onshore gathering and transmission (G&T) lines. Incidents for lines of all ages and sizes are reported. The average rate of occurrence per 1,000 mi-yrs is given at the bottom of the table. Also listed is a tally of those that occurred in post-1980 large pipe (20-inch OD and larger) and small pipe (smaller than 20-inch OD). Because national mileage could not be easily broken down by both size and age (either size or age is readily done but not both), no average rates per mile-year are shown. However, it is noted that post-1980 pipe comprises 27%

of the total onshore G&T mileage, but the total number of incidents (50) and fatalities (1) in both post-1980 size ranges is only 13% and 14% of the total, respectively, indicating half the rate of occurrence for post-1980 pipe on a per mile-year basis. This reflects the improved technology associated with modern pipelines, relative to the aggregate US natural gas pipeline system which has a mileage-weighted average age of 40 years.

Table 2. Natural Gas Onshore G&T Pipeline Incidents, 2002-2008, All and Post-1980

Year	All G&T pipe incidents			Post 1980, D>=20"			Post 1980, D<20"		
	Total	Fatalities	Injuries	Total	Fatalities	Injuries	Total	Fatalities	Injuries
2002	40	1	5	3	0	0	4	0	0
2003	62	1	8	3	0	0	6	0	0
2004	44	0	3	2	0	0	6	0	0
2005	68	0	7	0	0	0	2	0	0
2006	62	3	5	4	1*	0	3	0	0
2007	55	2	7	6	0	0	6	0	0
2008	54	0	5	0	0	**	5	0	**
TOTAL =>	385	7	40	18	1	0	32	0	0
Avg/yr =>	55.000	1.000	5.714	2.571	0.143	0.000	4.571	0.000	0.000
Avg/1000 mi-yr	0.1833	0.0033	0.0190						

*1982 vintage pipe

**4 injuries reported for post-1980 pipe but pipe size not stated

Table 3 below compares the occurrences of incidents for all ages and sizes of natural gas G&T pipelines from 2002 through 2008 sorted by Location Class. The proportionate representations of total system mileage of Location Classes 1, 2, 3, and 4 are 77.4%, 10.9%, 11.4%, and 0.3%, respectively. These proportions of system mileage were used to estimate average rates per 1,000 mile-years, shown below. It is apparent that rates of reportable incidents varies widely by class, but rates of fatalities in Class 1 and 2 are similar to each other, and rates of fatalities in Class 3 and 4 are low (zero in the sample period). A longer sampling period also shows near-zero fatality rates for Class 3 lines (there are no Class 4 lines in the proposed project). This illustrates the effectiveness of the risk-informed design basis for pipelines by Location Class, as well as the focus of integrity management planning on high-consequence areas.

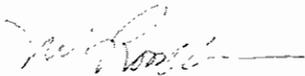
Table 3. Natural Gas Onshore G&T Pipeline Incidents, 2002-2008, by Location Class

Year	All Class 1			All Class 2			All Class 3			All Class 4		
	Total	Fatalities	Injuries									
2002	31	1	2	2	0	0	7	0	1	0	0	0
2003	50	1	4	5	0	2	7	0	1	0	0	0
2004	32	0	2	5	0	0	7	0	1	1	0	0
2005	52	0	5	4	0	0	10	0	1	1	0	0
2006	47	3	3	5	0	1	8	0	1	0	0	0

2007	39	1	4	5	1	1	10	0	1	0	0	0
2008	40	0	5	1	0	0	2	0	0	1	0	0
TOTAL	291	6	25	27	1	4	51	0	6	3	0	0
Avg/yr	41.571	0.857	3.571	3.857	0.143	0.571	7.286	0.000	0.857	0.429	0.000	0.000
Avg/1000 mi-yr	0.1790	0.0037	0.0154	0.1198	0.0044	0.0178	0.2128	0.0000	0.0250	0.3106	0.0000	0.0000

This concludes my review of the draft EIR for PG&E Lines 406 and 407. If you have further comments or questions, please feel free to contact me.

Sincerely,



Michael J. Rosenfeld, PE
President

Crystal Spurr - PG&E Line 406 and 407 NOA of EIR 06-12-2009 .doc

From: "Angel Rinker" <ARinker@placer.ca.gov>
To: <spurrc@slc.ca.gov>
Date: 06/12/2009 2:47 PM
Subject: PG&E Line 406 and 407 NOA of EIR 06-12-2009 .doc

Please find attached the Placer County Air Pollution Control District's comments regarding the PG&E Line 406 & 407 project.



~~3091 County Center Drive, Suite 240 Auburn, CA 95603 • (530) 745-2330 • Fax (530) 745-2373~~

www.placer.ca.gov/apcd

Thomas J. Christofk, Air Pollution Control Officer

June 10, 2009

Crystal Spurr, Project Manager
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
spurrc@slc.ca.gov

Subject: Pacific Gas and Electric Company (PG&E) Line 406-407 Natural Gas Pipeline /Notice of Availability of Draft Environmental Impact Report

Dear Mrs. Spurr:

Thank you for submitting the above referenced project to the Placer County Air Pollution Control District for review and comment. A portion of this project is located within the Sacramento Valley Air Basin (SVAB) portion of Placer County. The SVAB is classified as a severe non-attainment area for federal health based on ambient air quality standards for ozone. In addition, Placer County is also designated as a serious non-attainment area for State ozone ambient air quality standards and non-attainment for State particulate matter standards.

The PCAPCD and the Sacramento Metropolitan Air Quality Management District (SMAQMD) have developed significance thresholds that are used to determine the severity of a project's construction and long term operational impacts. These significance thresholds are used in all California Environmental Quality Act (CEQA) documents prepared by jurisdictions within Placer County and Sacramento County to evaluate project level air quality impacts. When a project spans Placer and Sacramento County lines, the air districts recommend that the lead agency use the more stringent of the two CEQA Significance Thresholds.

The proposed project has the potential to result in significant air quality impacts from construction equipment and activity. The California Environmental Quality Act (CEQA) Guidelines Section 15021

establishes a "duty for public agencies to avoid or minimize environmental damage where feasible." Therefore, an air analysis should be provided in environmental review process to quantify the project's short-term construction emissions and compared them to the air district's significant thresholds. If necessary, feasible mitigation measures should be identified and implemented by the project to prevent significant impacts. SMAQMD Road Construction 6.3.1 model is an acceptable planning tool recognized by the PCAPCD and SMAQMD to estimate roadway construction emissions.

Based on the air quality analysis prepared for this project, the project's related ozone precursor emissions in the year 2010 construction phase are expected to exceed the PCAPCD's significant thresholds and will result in a temporary increase in local and regional air quality impact. Mitigation measures should be implemented by the project to ensure the project's construction emission impacts will remain below the significant level.

In general, the District agrees with the analysis and conclusions provided in the Draft Environment Impact Report regarding the project's air quality impacts. The District would also like to recommend the following mitigation measures /conditions of approval be included within the scope of the propose project.

1a. The applicant shall submit a Construction Emission / Dust Control Plan to the Placer County APCD. This plan must address the minimum Administrative Requirements found in section 300 and 400 of APCD Rule 228, Fugitive Dust. The applicant shall not break ground prior to receiving APCD approval of the Construction Emission / Dust Control Plan.

1b. The prime contractor shall submit to the District a comprehensive inventory (i.e. make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. The inventory shall be updated, beginning 30 days after any initial work on site has begun, and shall be submitted on a monthly basis throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least three business days prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the property owner, project manager, and on-site foreman.

1c. The applicant shall provide a plan to the Placer County APCD for approval by the District demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.

The contractor shall suspend all grading operations when fugitive dust exceeds Placer County APCD Rule 228 (Fugitive Dust) limitations. The prime contractor shall be responsible for having an individual who is CARB-certified to perform Visible Emissions Evaluations (VEE). This individual shall evaluate compliance with Rule 228 on a weekly basis. It is to be noted that fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. If lime or other drying agents are utilized to dry out wet grading areas they shall be controlled as to not to exceed Placer County APCD Rule 228 Fugitive Dust limitations.

An enforcement plan shall be established, and submitted to the APCD for review, in order to weekly evaluate project-related on-and-off- road heavy-duty vehicle engine emission opacities, using standards as defined in California Code of Regulations, Title 13, Sections 2180 - 2194. An Environmental Coordinator, hired by the prime contractor or property owner, and who is CARB-certified to perform Visible Emissions Evaluations (VEE), shall routinely evaluate project related off-road and heavy duty on-road equipment emissions for compliance with this requirement. Operators of vehicles and equipment found to exceed opacity limits will be notified by APCD and the equipment must be

d within 72 hours.

The prime contractor shall suspend all grading operations when wind speeds (including instantaneous gusts) exceed 25 miles per hour and dust is impacting adjacent properties.

The contractor shall use CARB ultra low diesel fuel for all diesel-powered equipment. In addition, low sulfur fuel shall be utilized for all stationary equipment.

Pursuant to the Placer County Air Pollution Control District Rule 501, General Permit Requirements, the proposed project may need a permit from the District prior to construction. In general, any engine greater than 50 brake horsepower or any boiler with heat greater than 1,000,000 Btu per hour will need a permit issued by the District.

Thank you for the opportunity to review this proposal. If you have any question or comments please phone 530-745-2333.

Sincerely,

Angel Rinker

Angel Rinker
Placer County Air Pollution Control District
Associate Planner
Arinker@placer.ca.gov
(530) 745-2333