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Via electronic mail and FedEx

Kerby E. Zozula
Engineering Division Manager
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003
Email: kerby@vcapcd.org

Subject: Comments on Preliminary Determination of Compliance for Puente Power Project, Application No. 00013-370, CEC Application No. 15-AFC-01

Dear Mr. Zozula:

Sierra Club, Environmental Defense Center, and Environmental Coalition of Ventura County submit the following comments on the Preliminary Determination of Compliance (“PDOC”) for the Puente Power Project (“Puente” or “the Project”). The health impacts of impaired air quality in Ventura County are already acute. The Ventura County air basin is in serious nonattainment for federal ozone standards, and in nonattainment of state ozone and particulate matter standards.¹ It is therefore critical that the PDOC provides a robust assessment of the potential for Puente to worsen the region’s air quality and exacerbate impacts to public health. Unfortunately, the PDOC contains several fundamental flaws that serve to significantly understate the air quality impacts from the proposed Project. When these flaws are rectified, it is apparent that Puente violates air quality standards and the District must deny an Authority to Construct for Puente. In addition, when Puente is properly categorized as a new rather than replacement unit, it is clear that emissions offsets must be procured to address Puente’s exacerbation of air quality impacts in Ventura County.

The PDOC’s dispersion modeling significantly underestimates Puente’s impacts to air quality. First, the modeling fails to account for nearby sources—most notably, Mandalay Generating Station (“MGS”) Unit 3 and the McGrath Peaker Plant. The project area contains multiple pollution sources, the emissions from which are highly unlikely to be captured in background monitoring data. In restricting its analysis to the Puente project alone and not analyzing Puente’s operation in concert with nearby facilities, the PDOC contravenes best practices on cumulative air quality impacts, and understates the potential for violation of federal and state air quality standards.

¹ VCAPCD website, “Air Quality Standards,” http://www.vcapcd.org/air_quality_standards.htm (Accessed June 14, 2016).

Second, the air quality analysis assesses emissions using the Adjusted U* model variant, an industry-sponsored, non-standard option, rather the EPA's preferred model. Under the PDOC's own assessment, Adjusted U* cuts the estimated pollutant concentrations by half in comparison to EPA-approved methods. Adjusted U* is not appropriate for assessing Puente's air quality impacts.

The PDOC's air quality modeling must be revised to include nearby facilities, and must be re-run using EPA's approved air model. To understand the impact of these changes on air quality, Sierra Club retained expert air quality modeler Lindsey Sears. Under Ms. Sears's analysis, when nearby units are included, expected NO₂ concentrations exceed the National Ambient Air Quality Standards ("NAAQS") and California Ambient Air Quality Standards ("CAAQS"), even before background ozone concentrations are considered. The modeling also shows that when the emissions of Puente and the nearby McGrath facility are considered together, expected emissions violate CAAQS standards for ozone even when using the unapproved Adjusted U* beta model.

In addition to the modeling errors, the PDOC improperly evaluates Puente as a "replacement facility" for MGS Unit 2. Under the District's rules, a replacement project is one that serves an "identical function" to the unit being retired. Because Puente has very different capabilities than MGS Unit 2 and can be called on for fast ramping and other short duration needs, it will not serve an identical function to MGS Unit 2. Puente must therefore be considered a new generating unit and the Applicant be required to obtain sufficient emissions offsets to mitigate its impact on air quality.

III. DISCUSSION

A. **An Authority to Construct Cannot Be Lawfully Issued, Because Correcting Modeling Errors in the PDOC Shows that Puente Will Cause or Contribute to a Violation of Ozone Air Quality Standards.**

1. The PDOC Understates Puente's Air Quality Impacts by Improperly Omitting Emissions from Nearby Pollution Sources.

In excluding existing nearby sources from its air quality modeling, the PDOC is inconsistent with EPA guidance and understates the severity of the air quality impacts posed by Puente. Indeed, the PDOC claims that the Ambient Air Quality Analysis ("AAQA") methodology used by the District follows EPA's Guideline for Air Quality Models, known as "Appendix W."² Yet Appendix W, which lays out the approved methods for using AERMOD, plainly requires impacts from nearby point sources to be directly modeled. According to EPA's New Source Review Workshop manual, "EPA requires that, at a minimum, all nearby sources be explicitly modeled as part of the NAAQS analysis."³ The definition of a "nearby source" in Appendix W is inclusive: it includes any source "expected to cause a significant concentration

² Ventura County APCD, *Preliminary Determination of Compliance* for Puente Power Project ("PDOC"), Appendix G: *Ambient Air Quality Analysis and Risk Management Review*, p. 9 ("AAQA").

³ U.S. EPA *New Source Review Workshop Manual*, Section IV.C.1, p. C.32 (emphasis in original) ("NSR Manual").

gradient in the vicinity of the source or sources under consideration.”⁴ According to EPA, a nearby source requiring modeling could be anywhere within the projects’ impact area (the area covered by the project’s dispersion modeling) or as far away as “50 kilometers beyond the impact area.”⁵ The PDOC’s air quality modeling must be revised to include a more robust analysis.

There are multiple nearby sources that should be included in dispersion modeling as part of a NAAQS analysis. The Mandalay Generating Station, where Puente would be located, contains three existing units. MGS Units 1 and 2 are both required to retire due to once-through cooling regulations. Unit 2 is expected to retire if and when Puente begins operating, but Unit 1 may continue operating up until its December 31, 2020 once-through-cooling compliance date.⁶ MGS Unit 3, a 130 megawatt natural gas peaker, is not subject to a once-through cooling retirement deadline and will continue operating indefinitely.⁷ In addition, the McGrath peaker, a 45-megawatt natural gas turbine built in 2012, is located a mere 439 meters away from the proposed location of Puente.⁸ Each of these facilities is well within EPA’s definition of a “nearby source” for purposes of inclusion in air quality modeling.

As the EPA makes clear, it is not accurate to assume that emissions from nearby sources will be captured in background monitoring.⁹ For purposes of assessing NAAQS compliance, air quality modeling is intended to evaluate the worst-case emissions scenario to determine whether an exceedance may occur.¹⁰ As the EPA guidance explains, the maximum potential contribution of nearby facilities to impaired air quality will not necessarily be captured in background monitoring data because “sources don’t typically operate at their maximum allowable capacity.”¹¹ Similarly, the California Energy Commission recommends that when existing sources are present on the project site, and ambient air quality monitoring stations are over two miles away, “co-located or adjacent” sources are not likely to be captured in background air quality modeling, and should be explicitly modeled.¹² This concern with concurrent impacts is especially salient in this case because Puente, McGrath, and the Mandalay units all provide peaking power, and will therefore foreseeably run at the same time: hot summer days when, to add insult to injury, air quality is poor and ozone formation is exacerbated by high temperatures. In order to accurately assess whether the emissions plumes from the proposed source and nearby existing sources could, in concert, cause air quality violations, the emissions rates from these sources must be included in the dispersion model.

⁴ 40 C.F.R. Part 51, Appendix W (*Guideline on Air Quality Models*), Section 8.2.3(b) (emphasis added) (“Appendix W”).

⁵ NSR Manual, p. C.32.

⁶ PDOC, p. 1, 18.

⁷ PDOC, p. 1.

⁸ California Energy Commission, *Puente Power Plant Preliminary Staff Assessment* (June 2016), p. 4.11-52 (“Puente PSA”).

⁹ The AAQA never overtly states that the modeling results presented in Tables 5-12 through 5-15 only include Puente. It also contains no rationale for imposing this limitation despite including other Mandalay units in preliminary modeling released in December 2015.

¹⁰ AAQA, p. 19. *See also* NSR Manual, Section II.B.6.

¹¹ Appendix W, Section 8.2.1(c).

¹² Puente PSA, p. 4.1-55.

2. The PDOC Errs in Using a Non-Approved Model Variation Instead of the Primary Model to Determine Puente’s Air Quality Impacts.

Sierra Club previously submitted comments to the District regarding the use of the Adjusted U* “beta option” in the AERMET program.¹³ In response to these concerns, the air quality analysis in the PDOC presents results using both the Adjusted U* beta model and EPA’s preferred model. However, the PDOC continues to rely on the results using Adjusted U*. As the modeling in the PDOC shows, this beta model cuts predictions of pollutant concentrations from Puente in half compared to the EPA-approved method.¹⁴

The Adjusted U* option is not approved by the EPA for use as a primary air model, and it is inappropriate to elevate this alternative option to a regulatory standard without following proper procedure for verifying that the default model improves model performance. As the EPA has explained, beta options in AERMOD and AERMET are included for the limited purpose of “vetting of yet to be formally promulgated model options that are still undergoing research and development.”¹⁵ Use of an unapproved beta model must be substantiated by careful analysis, following the process laid out in EPA’s air quality modeling guidance in Appendix W.¹⁶ Appendix W provides three different pathways that can be used to request approval to use an alternative model:

- 1) The alternative and preferred model provide equivalent estimates;
- 2) The alternative model outperforms the preferred model when comparing the results to actual air quality data; or
- 3) The preferred model is less appropriate or there is no preferred model for the given scenario.¹⁷

The PDOC does not meet any of these conditions. Condition (1) does not apply, as the modeling presented in the PDOC demonstrates that Adjusted U* results in predicted ambient concentrations that are one-half of the default predictions. San Joaquin Air Pollution Control District Staff previously asserted that the use of the beta model was unimportant and “adjusted u* should not have any impact on our project” because “[i]t only affects low level sources where the impact is very close to the source.”¹⁸ However, the modeling results show that this assumption was misinformed, and that Adjusted U* has a considerable impact. Condition (3) also does not apply, as there is a preferred model for this scenario—the default model—and the

¹³ Sierra Club, Letter to Kerby Zozula, VCAPCD, Re: Concerns with Reliance on Unapproved “Beta Option” in Air Quality Modeling for Puente Power Project (April 11, 2016).

http://docketpublic.energy.ca.gov/PublicDocuments/15-AFC-01/TN211007_20160412T105441_Letter_Regarding_Use_of_Beta_Model_in_Air_Quality_Modeling.pdf.

¹⁴ AAQA, *c.f.* Tables 5-14 and 5-14, pp. 20-21 *with* Tables 5-15 and 5-16, pp. 22-23.

¹⁵ U.S. EPA Memorandum, “Clarification on the Approval Process for Regulatory Application of the AERMOD Modeling System Beta Options,” (Dec. 10, 2015), p. 1.

¹⁶ Appendix W, Section 3.2.

¹⁷ *Id.*

¹⁸ Email from David Garner, Senior Air Quality Specialist at SJAPCD, to Dan Klevann, Senior Air Quality Engineer at SJAPCD (April 12, 2016), attached as Attachment C.

PDOC does not explain why the preferred model is inappropriate. The PDOC does not attempt to satisfy Condition (2).

Instead, the PDOC provides five justifications, as bullet points. Two of the five bullet points reference vague “discussions” with EPA and with “other regulatory agencies” that in no way constitute substantial evidence.¹⁹ Two other bullet points cite documents or presentations by the EPA discussing the development of Adjusted U*.²⁰ Neither of these EPA documents is a determination that U* performs better “under a variety of sources and conditions,” as the PDOC misleadingly asserts. The EPA has not made, or even proposed making, this finding. The agency has suggested adding adjusted U* as an option in AERMOD, for use in “stable, low wind speed conditions,” and is reviewing public comments on the efficacy of this model variant.²¹

Regardless, this model variant is not appropriate for use in this case because a predominance of stable and low wind speeds is not a concern at the Puente site. The original citation provided by the Applicant as justification for using Adjusted U* was a presentation by the corporation AECOM.²² The presentation states that the alleged problems with EPA’s default model are “[n]ot likely an issue for winds greater than ~0.5 m/s.” According to the Application, the average wind speed at the Oxnard Airport, the sampling site for wind speed data, is 3.24 meters per second.²³ Between 2009 and 2013, wind speed at the monitoring site was below 0.5 meters per second only about 2-3 percent of the time.²⁴ Furthermore, the Oxnard Airport is 2 miles inland from the project site, so it is conceivable that this data may underestimate actual wind speed, and that winds directly at the coastal project site may be faster. The PDOC never addresses the incongruity of asserting a special model variant designed for areas with low wind speeds is required for a project that will not experience low wind speeds. In fact, the PDOC does not mention wind speeds at the project site at all.

The EPA documents cited by the District explaining how the model variant was developed reveal that the two studies underpinning the development of Adjusted U* apply to a narrower range of sources and conditions than the studies used to develop AERMOD. These studies are considerably smaller in scope, and are based on input data that are not publicly available and held only by EPA and the American Petroleum Institute, a major proponent of the revision.²⁵ When applied to the data sets used to develop AERMOD, the Adjusted U* variant decreases the model accuracy.²⁶ Given that EPA has yet to make a final determination on the

¹⁹ AAQA, p. 16.

²⁰ *Id.*, citing the *User’s Guide for the AMS/EPA Regulatory Model – AERMOD* and “EPA presentation given during the 11th Modeling Conference.”

²¹ Revision to the Guideline on Air Quality Models, 80 Fed. Reg. 145 (July 29, 2015) (to be codified at 40 C.F.R. pt. 51), p. 45345.

²² Puente Power Project Application for Certification (April 15, 2015) (“Application”), Appendix C-4, p. A-4, fn. 6., citing AECOM Presentation “AERMOD Low Wind Speed Issues: Review of New Model Release” (April 23, 2013), available at http://www.cleanairinfo.com/regionalstatelocalmodelingworkshop/archive/2013/Files/Presentations/Tuesday/105-Review_of_AERMOD_Low_Wind_Speed_Options_Paine.pdf.

²³ Application, p. 4.1-2.

²⁴ Application, Appendix C-1: *Wind Roses*, pp. 1-4.

²⁵ See, e.g. *Sierra Club Comments on Proposed Rule* (Oct. 25, 2015), available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2015-0310-0114>.

²⁶ See *id.*, pp. 3-4.

appropriateness of Adjusted U*, and that neither of the EPA documents cited states that Adjusted U* is appropriate for broad use, these references are not appropriate to rely on to determine that Adjusted U* should be used for Puente.

The fifth bullet point references “several recent concurrence memoranda for the use of Adjusted U*”²⁷ At the time of publication of the PDOC, there were only two such memoranda, and it is inappropriate to extend the conclusions EPA made in those situations to this case. The District asserts that it does not need to seek EPA concurrence because Puente “is not a PSD [Prevention of Significant Deterioration] project.”²⁸ The District has not independently determined that Puente is not a PSD project, it has merely accepted the Applicant’s contention that PSD does not apply.²⁹ However, whether or not Puente is a PSD project should not affect the level of rigor with which the District assesses the propriety of using a beta model. It remains unreasonable to avoid the careful procedures EPA outlines in Appendix W, meant to ensure non-standard air quality models are used judiciously and only when necessary.

3. Corrected Modeling Demonstrates that Puente Will Cause Violations of Both California and National 1-hour NO₂ Standards.

When the air quality impacts of Puente and its neighboring units are modeled using EPA-approved methods, the results demonstrate that the project will contribute to violations of both national and federal air quality standards – even before considering any background concentrations of NO₂ in the ambient air.³⁰ This result holds true even when Puente is modeled in conjunction with any single nearby facility.

Sierra Club retained Lindsey Sears, an expert air quality modeler, to perform complete analysis of expected 1-hour NO₂ concentrations. Her results, attached to these comments as Appendix A, show that under normal operations of Puente combined with MGS Units 1 and 3, NO₂ concentrations are expected to exceed state and federal limits, even before background levels of NO₂ are considered.³¹ As shown in Table 1, below, the model results predict that operating all three units at once could result in NO₂ levels that are almost double federal air quality standards.

²⁷ AAQA, p. 16.

²⁸ AAQA, p. 16.

²⁹ See PDOC, p. 3.

³⁰ Ms. Sears’s complete analysis is attached to this letter as Attachment A. Sierra Club can provide her complete modeling files upon request.

³¹ As described in more detail in her report, attached as Attachment A, Ms. Sears obtained emissions data from existing MGS units from preliminary emissions modeling performed by the District in December 2015. This data is based on hourly emissions limits in the facilities’ Title V permits. To ensure that background concentrations due to MGS 1 and 3 were not double-counted, she used AERMOD to predict pollutant concentrations due to existing facilities at the monitoring stations. She then subtracted this modeled value from the monitored background level for each pollutant to produce a reduced background concentration level.

Table 1. Cumulative NO₂ Concentrations Due to Puente and MGS Units 1 and 3

Averaging Time	AAQS (µg/m ³)		Modeled Concentration (µg/m ³)	Background Concentration (µg/m ³)	Total Concentration (µg/m ³)	Exceeds Standard?
	California	National (Primary)				
1-hour Max	339	---	469.8	68.6	538.4	YES
1-hour 98th Percentile	---	188	347.5	40.8	388.3	YES

As shown in Table 2, below, expected NO₂ concentrations decline only slightly when MGS Unit 1 is removed from the equation. Normal operations of Puente and MGS Unit 3, which has no retirement date, are predicted to cause NO₂ concentrations that violate federal and California air quality standards – again, even before accounting for background levels.

Table 2. Cumulative NO₂ Concentrations Due to Puente and MGS Unit 3

Averaging Time	AAQS (µg/m ³)		Modeled Concentration (µg/m ³)	Background Concentration (µg/m ³)	Total Concentration (µg/m ³)	Exceeds Standard?
	California	National (Primary)				
1-hour Max	339	---	465.1	68.6	533.7	YES
1-hour 98th Percentile	---	188	342.7	40.8	383.5	YES

The tables above present results using so-called “Tier 1” methods for predicting NO₂ concentrations. This method results in the highest predicted levels of NO₂. Notably, however, Ms. Sears’ modeling using Tier 2 methods also resulted in violations of state and federal air quality standards.³² Tier 3 methods tend to give the lowest results and, like Adjusted U*, are not currently approved for use without special permission from EPA. While it is inappropriate to use this method for modeling Puente, it is notable that even this most conservative method predicts that the concurrent operation of Puente and MGS 3 would violate California NO₂ limits.³³

The newest nearby facility is the McGrath peaker plant, which was constructed only four years ago and lies just over a quarter mile away from the proposed site of Puente. McGrath has a higher capacity factor than any other facility in the immediate area and is arguably the most likely to continue frequently running alongside Puente.³⁴ When its plume is explicitly modeled, AERMOD predicts that the combined operation of Puente, MGS Unit 3, and McGrath would cause violations of both state and federal NO₂ limits, once again before accounting for background pollution.

Table 3. Cumulative NO₂ Concentrations Due to Puente, MGS Unit 3, and McGrath Peaker

³² See Attachment A, pp. 11.

³³ *Id.*

³⁴ *See, e.g.,* Puente PSA p. 4.1-47.

Averaging Time	AAQS ($\mu\text{g}/\text{m}^3$)		Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Background Concentration ($\mu\text{g}/\text{m}^3$)	Total Concentration ($\mu\text{g}/\text{m}^3$)	Exceeds Standard?
	California	National (Primary)				
1-hour Max	339	---	466.3	68.1	534.4	YES
1-hour 98th Percentile	---	188	344.8	40.6	385.4	YES

Strikingly, when AERMOD is run using the unapproved Adjusted U* alteration, it still shows that the combined operation of the three facilities without retirement dates – Puente, MGS Unit 3, and McGrath – will violate California air quality standards for NO₂, as shown in Table 4.

Table 4. Cumulative NO₂ Concentrations Due to Puente, MGS Unit 3, and McGrath Peaker, Using ADJ_U*

Averaging Time	AAQS ($\mu\text{g}/\text{m}^3$)		Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Background Concentration ($\mu\text{g}/\text{m}^3$)	Total Concentration ($\mu\text{g}/\text{m}^3$)	Exceeds Standard?
	California	National (Primary)				
1-hour Max	339	---	291.1	68.1	359.2	YES
1-hour 98th Percentile	---	188	144.2	40.6	184.8	NO

Dispersion air quality modeling that properly takes into these other power plants, all located within a five minute walk of each other and all likely to continue operating past 2020, shows that the combined operation of these sources has the potential to cause violation of air quality standards. These potential violations occur even when using an unapproved beta model known to reduce estimates of pollutant concentrations.

It is a disservice to the citizens of Ventura County to put forward faulty air quality analysis that does not accurately and fully acknowledge the Puente project’s potential impacts on the air residents will breathe every day. The District is required to accurately determine if Puente would cause or contribute to a violation of state or national air quality standards, because if it would, the District cannot legally grant Puente an Authority to Construct permit.³⁵ To do so, the District must revise its analysis to take other on-site sources into account, in accordance with proper dispersion modeling practices. As set forth above, these necessary revisions make clear that Puente would result in violations of federal and state air quality standards and therefore may not be granted an Authority to Construct permit.

B. The PDOC Underestimates the Emissions Increase from Puente Because it Inappropriately Categorizes Puente as a “Replacement Emissions Unit.”

The PDOC incorrectly classifies Puente as “a replacement emissions unit for MGS Unit 2,” and in doing so triggers an accounting method for the increase in air pollution that underestimates the true impacts.³⁶ Under the District’s rules, a replacement emissions unit is defined as “[a]n emissions unit which supplants another emissions unit where the replacement emissions unit serves the identical function as the emission unit being replaced.”³⁷ Puente will not serve an “identical function” to MGS Unit 2, as it is expected to operate and be dispatched very differently. Puente should more appropriately be considered a new emissions unit, “an

³⁵ VCAPCD Rule 26.2(C).

³⁶ PDOC, p. 18

³⁷ VCAPCD Rule 26.1(29).

emissions unit that is added to an existing stationary source,” and the District should re-calculate the expected increase in emissions on this basis.³⁸

The District justifies the categorization of Puente by stating that the Project will “provide dispatchable power to provide voltage support to the local reliability area in the same manner as the current steam generators.”³⁹ But the fact that Puente is also a dispatchable resource is not sufficient to demonstrate that it serves an identical function to the older units. Many divergent technologies are able to provide dispatchable power: hydroelectric turbines, fuel cells, demand response, and all kinds of chemical, kinetic, or electric storage can similarly be called upon when needed, but none of these technologies perform identical functions to one another or provide indistinguishable services to the electric grid.

In fact, Puente’s ability to be dispatched on command is far greater than that of MGS Unit 2. The latter facility is an Eisenhower-era gas-fired boiler that burns natural gas to heat water and create steam that drives a steam turbine. By contrast, Puente is a simple-cycle natural gas turbine, in which the turbine blades are propelled directly by combustion exhaust gases. This technology involves no steam and is more appropriately compared to a jet engine.⁴⁰ Steam turbines like MGS Unit 2 require time to raise steam, heat the turbine blades, and synchronize the turbine with grid frequency; if it has been several hours or longer since the generator was last run, this start up process can take one to two hours.⁴¹ Gas combustion turbines like Puente have less complicated start-up procedures and can start in a matter of minutes: General Electric advertises that the engine on which Puente is based can ramp from “start command to full load” in 10 minutes.⁴² By contrast, a steam turbine like MGS Unit 2 will, after its one to two hour start-up process, typically require an additional hour to ramp to 80% of its full load.⁴³

As the Application itself emphasizes, “the older generating technology would not provide the same efficient operational flexibility, with rapid-start and fast ramping capability.”⁴⁴ Puente was in large part procured expressly for these fast-start capabilities and overall operating flexibility that the aging units simply do not have. Because of this flexibility, Puente can be used more intermittently than MGS Unit 2, with more frequent starts and stops—and because of these different capabilities, it may be called to run more frequently. In this context, the suggestion that Puente will serve an “identical function” to MGS Unit 2 appears questionable.

Whether Puente is categorized as a replacement or a new facility matters because the categorization changes the method the District must use to calculate emission increases from the

³⁸ VCAPCD Rule 26.1(21).

³⁹ PDOC, p. 18.

⁴⁰ See, e.g. Alexandra Von Meier, *Electric Power Systems* (John Wiley and Sons 2006), p. 273.

⁴¹ Andreas Schroeder *et al.*, “Current and Prospective Costs for Electricity Generation until 2050 – Data Documentation” (Deutsches Institut fuer Wirtschaftsforschung, 2013), p. 61.

⁴² General Electric, “7HA.01/02 GAS TURBINE (60 HZ) Specifications,” <https://powergen.gepower.com/products/heavy-duty-gas-turbines/7ha-gas-turbine.html>

⁴³ See estimates of gas steam turbine ramp rates in Andrew Mills *et al.*, “Integrating Solar PV in Utility System Operations” (Argonne National Laboratory, 2013); Lisa Koch, “Flexibilitaet von Kraftwerken [Flexibility of Power Plants]” (Technische Universitaet Berlin, 2013); and F.H. Fenton, “Survey of Cyclic Load Capabilities of Fossil- Steam Generating Units” *IEEE Transaction on Power Apparatus and Systems* (Vol. PAS-101 6: 1410-1419) (1982).

⁴⁴ Application, p. 5-3.

project. For new emissions units, the emissions increase from the new facility is simply equal to the project's potential to emit under its permit.⁴⁵ For a project categorized as a replacement, however, emission increases are calculated on a "potential-to-potential" basis, where the potential emissions of the retiring unit are subtracted from the new unit's potential emissions.⁴⁶ In this case, subtracting MGS Unit 2's high potential emissions from those of Puente leads to an under-estimate of the project's actual potential to pollute, and results in the Applicant having no obligation to procure emissions offsets.

For example, the PDOC estimates that Puente will release more ROC per unit natural gas burned than the older facility it replaces: Puente is estimated to emit 2.61 pounds of ROC per million cubic feet of natural gas burned, while the estimate for MGS Unit 2 is 1.4 pounds of ROC per million cubic feet.⁴⁷ However, based on the potential-to-potential calculation, the PDOC concludes that Puente will lower emissions of ROCs. This counter-intuitive conclusion is due to a discrepancy in the facilities' permit limits on their hours of operation: Puente has accepted a limit on its run time to 2150 hours per year, but MGS Unit 2 is permitted to run at full capacity 8760 hours per year. As a result, the PDOC concludes Puente's potential ROC emissions will be just slightly lower than those from MGS Unit 2. It does not require the Applicant to procure ROC offsets, as it otherwise would have been required to do under the District's Rule 26.2.B. The emissions increase calculation for ROC as well as PM10 should be repeated to properly categorize Puente as a new unit and more accurately assess whether or not the Applicant should be required to obtain emissions offsets.

IV. CONCLUSION

By inappropriately restricting the reach of its modeling and using an unapproved model variant, the PDOC's air quality analysis fails to present an accurate assessment of the true impacts the Puente project could have on Ventura County's air quality. In doing so, it short-changes the citizens of Ventura County, who breathe air every day that already seriously violates federal health standards. The air quality analysis in the PDOC must be redone to address the fundamental flaws contained in the preliminary version and provide a complete, accurate assessment of the potential for Puente to worsen the region's air quality and harm public health.

Respectfully,

/s/ ALISON SEEL

Alison Seel
Sierra Club
2101 Webster St., 13th Floor
Oakland, CA 94612
Telephone: (415) 977-5737
Email: alison.seel@sierraclub.org

⁴⁵ VCACPD Rule 26.6(D)(2).

⁴⁶ *Id.*

⁴⁷ Compare PDOC, Table VII – 5, p. 10 with Table VII – 16 (p. 16).

Brian Segee
Environmental Defense Center
111 W. Topa Topa Street
Ojai, CA 93023
Telephone: (805) 640-1832
bsegee@environmentaldefensecenter.org

Cc: Gerardo Rios, U.S. EPA Region IX (Rios.Gerurdo@epa.gov)
Tung Le, California Air Resources Board (tle@arb.ca.gov)

Encl: Attachment A: *Air Quality Review and Comments*, prepared by Lindsey Sears
Attachment B: *Curriculum Vitae* of Lindsey Sears
Attachment C: April 12, 2016 email from David Garner to Dan Klevann