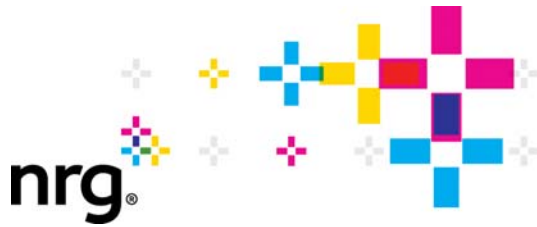


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October 6, 2016

Michael Villegas
Air Pollution Control Officer/Executive Officer
Ventura County APCD
669 County Square Drive
Ventura, CA 93003

Subject: City of Oxnard's Comments on Preliminary Determination of Compliance for Puente Power Project with Regards to PSD Applicability

Dear Mr. Villegas:

In separate letters to the Ventura County Air Pollution Control District (VCAPCD) and to the California Energy Commission (CEC) commenting on the Preliminary Determination of Compliance (PDOC) and Preliminary Staff Assessment (PSA) for the Puente Power Project (P3), the City of Oxnard contends that P3 triggers permitting under Prevention of Significant Deterioration (PSD) regulations for PM_{2.5} emission increases. The City's contention is not new; it has been a theme in several of the City's data requests. In responses to these data requests, and throughout the permitting process for P3, the Applicant has consistently demonstrated that P3 does not trigger PSD review for PM_{2.5} emissions or for any other pollutant. The following is a summary of the most current information that supports the conclusion that P3 does not trigger PSD review for PM_{2.5} emissions.

The City of Oxnard's most recent claims are contained in Dr. Phyllis Fox's September 14, 2016 comments on the P3 PDOC and PSA.¹ Dr. Fox's PSD applicability argument is primarily focused on the following two issues:

1. The wrong two-year period was used to calculate the actual baseline PM_{2.5} emissions for Mandalay Generating Station (MGS) Unit 2; and
2. The wrong PM_{2.5} emission factor was used to calculate the actual baseline PM_{2.5} emissions for MGS Unit 2.

The Applicant's responses to these two issues are discussed in the following paragraphs.

¹ TN# 213649

MGS Unit 2 Two-Year Baseline Period

In questioning the two-year baseline period selected by the Applicant to establish the actual baseline PM_{2.5} emissions for MGS Unit 2, Dr. Fox makes the following assertions:²

If the Applicant had selected any other consecutive two year period, the change in PM_{2.5} emissions would have been much higher, exceeding the PM_{2.5} significance threshold in two out of the four possible combinations even when using the Applicant's erroneous emission factor and in all four cases when other, more accurate PM_{2.5} emission factors (1 lb/MMscf or 0.35 lb/MMscf) are used.

The Applicant has responded to this same issue in responses to City data requests. The most recent response to this issue is contained in the Applicant's responses to the City of Oxnard's comments on the P3 PDOC.³ As discussed in these responses, federal PSD regulations allow the Applicant to select any consecutive 24-month period during the baseline period to determine the baseline actual emissions for existing units.⁴ The Applicant used the period from 2012-2013 to determine the baseline emissions for MGS Unit 2 for PSD applicability purposes. There is no further justification required under the PSD regulations for using this two-year baseline period.

MGS Unit 2 PM_{2.5} Emission Factor

In questioning the PM_{2.5} emission factor selected by the Applicant to calculate the actual baseline PM_{2.5} emissions for MGS Unit 2, Dr. Fox makes the following assertions:⁵

In sum, superseded and inaccurate generic, two-decades old, population-based emission factors developed with test methods known to overestimate PM_{2.5} emissions are not a reasonable basis to establish "actual" baseline emissions for MGS Unit 2 during the baseline period. The most recent test data indicate that a more accurate estimate of "actual" baseline PM_{2.5} emissions for MGS Unit 2 is 0.2 to 0.3 ton/yr, compared to the Applicant's estimate of 1.62 ton/yr.

As with the two-year baseline period issue, the Applicant has responded to this same issue in responses to City data requests. The most recent response to this issue is contained in the Applicant's responses to the City of Oxnard's comments on the P3 PDOC.⁶ As discussed in these responses, PSD review is not triggered for P3 even if a newer/lower PM₁₀/PM_{2.5} emission factor established by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for natural gas fired boilers is used to calculate baseline emissions for MGS Unit 2.

As shown in the Applicant's responses to the City of Oxnard's comments on the P3 PDOC,⁷ if the two-year average baseline PM₁₀ inventory level of 1.62 tons/year for

² TN# 213649, page 16.

³ TN# 213482, page 3.

⁴ 40 CFR 52.21(b)(48)(i).

⁵ TN# 213649, page 14.

⁶ TN# 213482, page 3.

⁷ TN# 213482, page 2.

MGS Unit 2 shown in the PDOC⁸ were adjusted using the newer/lower SJVUAPCD PM₁₀ emission factor of 0.0013 lbs/MMBtu, the revised MGS Unit 2 baseline PM₁₀ would be approximately 0.84 tons/year. Based on the maximum expected PM₁₀/PM_{2.5} emissions for P3 of 10.68 tons/year shown in the PDOC,⁹ subtracting the above MGS Unit 2 baseline level of 0.84 tons/year results in a net PM₁₀/PM_{2.5} emission increase of 9.84 tons/year. This net emission increase is below the PM₁₀ PSD trigger threshold of 15 tons/year and the PM_{2.5} PSD trigger threshold of 10 tons/year. Therefore, even with a revised baseline PM₁₀/PM_{2.5} emission level for MGS Unit 2, the P3 does not trigger PSD review for these pollutants. Furthermore, as indicated in the PDOC¹⁰ and PSA¹¹, MGS Unit 1 will shut down by the end of 2020. If you account for the MGS Unit 1 PM₁₀ baseline level of 0.72 ton/year¹², the P3 net emission increase becomes approximately 9.12 tons/year - even further below the PM₁₀ and PM_{2.5} PSD trigger thresholds.

The Applicant is aware that the P3 net emission increase of 9.84 tons/year for PM_{2.5} (based just on the shutdown of MGS Unit 2) is close to the PSD review trigger level of 10 tons/year. Therefore, in an effort to further reduce the PM_{2.5} net emission increase calculated for P3 for PSD applicability purposes, and to completely eliminate this as an issue, the Applicant requests that the VCAPCD include a new condition in the Final Determination of Compliance (FDOC) for P3 requiring the permanent shutdown of both MGS Units 1 and 2 following the commissioning period for the new P3 gas turbine. This would make federally enforceable the further reduction in PM_{2.5} emissions of approximately 0.72 ton/year, resulting in a P3 net emission increase of approximately 9.12 tons/year for PM_{2.5}.¹³

Allowing MGS Units 1 and 2 to continue to operate if necessary during the P3 gas turbine commissioning period is consistent with EPA regulations regarding replacement units. For replacement units such as the proposed P3 gas turbine, EPA regulations allow up to 180 days from the initial startup of new equipment before the emissions from the new unit are included for purposes of applicability of PSD regulations.¹⁴ This 180-day period allows for a reasonable shakedown period for new equipment. The commissioning period is part of the shakedown period for the new P3 gas turbine.

⁸ TN# 211570, Table VII-16.

⁹ TN# 211570, Table VII-21.

¹⁰ See, e.g., TN# 211570, VCAPCD PDOC, Section I

¹¹ See, e.g., TN# 211885-1, CEC FSA, p. 4.1-20.

¹² Calculated using the SJVUAPCD PM₁₀ emission factor of 0.0013 lbs/MMBtu and starting with MGS Unit 1 baseline PM₁₀ emissions of 1.38 tons/year shown in PDOC, TN# 211570, Table VII-15 (1.38 x 0.0013/0.0025).

¹³ Calculated based on 9.8 tons/year (PM₁₀/PM_{2.5} net emission increase for P3 with shutdown of MGS Unit 2) minus 0.72 tons/year of PM₁₀/PM_{2.5} associated with the shutdown of MGS Unit 1.

¹⁴ 40 CFR Part 52.21(b)(3)(ii) and (viii).

If you have any questions regarding this issue, please do not hesitate to contact me at (760) 710-2156.

Sincerely,

A handwritten signature in cursive script, appearing to read "George L. Piantka".

George L. Piantka, PE
Sr. Director, Regulatory Environmental Services
NRG Energy, Inc.

cc: Kerby E. Zozula, VCAPCD