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26 September 2017

Mr. Conrad Spencer
Director, Tucson Power Production
Tucson Electric Power Company
88 East Broadway Boulevard, Mail Stop HQW602
Tucson, Arizona 85702

Subject: Air Quality Permit Revision Application – Technical Review
Irvington Generating Station
Permit No. 1052

Dear Mr. Spencer:

On 3 August 2017, the Pima County Department of Environmental Quality (“PDEQ”) received an Application for a Prevention of Significant Deterioration (PSD) Authorization and Significant Revision to Class I Air Quality Permit for the Irvington Generating Station (“IGS”) located at 3950 East Irvington Road in Tucson, Arizona. PDEQ is continuing with technical review of the application and requests the information described below. The information requested is based on comments received from the United States Environmental Protection Agency (USEPA)¹, Region 9 and the National Park Service (NPS).² The following questions and comments are in addition to previously-requested information.

1. Section 3.1.8 of the application states that the proposed annual potential to emit for the proposed project is 179.0 tons of nitrogen oxides (NOx) per year. This includes emissions from ten (10) reciprocating internal combustion (RICE) units with selective catalytic reduction (SCR) emission control for NOx. To demonstrate that the RICE units will be designed and operated to meet the proposed annual emission limit, please provide supporting documentation and detailed emission calculations showing the NOx emission reduction from the SCR. In addition, please provide vendor specifications for the SCR units.
2. Provide a land use assessment within three (3) kilometers of the proposed project using the Auer land use classification method for determining whether rural or urban dispersion options are justified for use in the dispersion modeling analysis (Appendix C of the application).

¹ Comments received via email from Cleveland Holiday of the USEPA on 18 September 2017.

² Comments received via email from Kristin King of the NPS on 18 September 2017.

3. Provide a load and temperature analysis to determine which operating load would be expected to cause the highest ambient air impacts. The scenario with the highest ambient impact for each pollutant should be included in the ambient air quality impact analysis (Appendix C of the application).
4. The VISCREEN model results presented in Appendix C, Section 5.1, Table 5-4 of the application show the results are predicted to be below the significance criteria for plume perceptibility (ΔE) and plume contrast (C_p). This conclusion is based on the difference between the plume impacts for the proposed project (i.e., 10 RICE units) and for the baseline case (i.e., existing Units 1 and 2), as explained in Appendix C, Section 5.1, page 5-2. Please provide documentation that the difference in plume perceptibility and plume contrast between the proposed project and the baseline case is an appropriate technique for determining impacts to compare with the significance criteria for these two visual impact parameters. Please also provide emission calculations for the proposed RICE units and the baseline case (Units 1 and 2) used to conduct the VISCREEN analysis.
5. If the RICE unit design does not allow the stacks to be configured in two groups of five such that all stacks within a group of five are within one (1) diameter of every other stack, then the merged stacks technique will need further clarification before/if approval can be given to use merged stack parameters in the dispersion modeling.
6. The proposed NO_x testing and monitoring requirements described in Section 4.5.3 of the application are not sufficient to demonstrate compliance with the proposed NO_x emission limit (i.e., 179 tons NO_x per year, all engines combined). The permit will include NO_x compliance determination procedures that are sufficient to ensure continuous compliance with the proposed NO_x emission limit. Please provide a compliance demonstration approach that includes more frequent testing and monitoring of NO_x emissions from the RICE units.

Please submit the requested information as soon as possible to continue expedited review of the application. Should you have any questions or need additional information please do not hesitate to contact me at 520-724-7341.

Sincerely,



Rupesh Patel

PDEQ Air Permit Engineering Manager

Copies to: Charles W Komadina, Tucson Electric Power
Suzanne Kennedy, Geosyntec Consultants
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Eugene Chen, USEPA Region 9
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Kristin King, National Park Service