

## DOCKETED

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| <b>Docket Number:</b>   | 03-AFC-01C                                                                                   |
| <b>Project Title:</b>   | Roseville Energy Park Compliance                                                             |
| <b>TN #:</b>            | 212914                                                                                       |
| <b>Document Title:</b>  | Roseville Energy Park - Responses to Air Quality Request for Additional Information 20160517 |
| <b>Description:</b>     | Roseville Energy Park - Responses to Air Quality Request for Additional Information 20160517 |
| <b>Filer:</b>           | Mary Dyas                                                                                    |
| <b>Organization:</b>    | Roseville Electric                                                                           |
| <b>Submitter Role:</b>  | Public Agency                                                                                |
| <b>Submission Date:</b> | 8/23/2016 9:30:00 AM                                                                         |
| <b>Docketed Date:</b>   | 8/23/2016                                                                                    |

## Dyas, Mary@Energy

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**To:** Johnson, Jamie  
**Subject:** RE: REP AQ-SC9 AQ Petition - Request for Information

Thanks Jamie.

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**From:** Johnson, Jamie [mailto:JJohnson@roseville.ca.us]  
**Sent:** Wednesday, August 10, 2016 2:03 PM  
**To:** Dyas, Mary@Energy  
**Cc:** Garner, Matt; Matchim, Shawn; Johnson, Anthony  
**Subject:** RE: REP AQ-SC9 AQ Petition - Request for Information

Mary,

Below you will find Roseville Electric's responses to your questions regarding the requested amendments to the NH3 slip condition. I apologize for the delay. Please let me know if you or staff require additional information or have any questions.

1) *Is this requested modification based on new information that changes the underlining assumptions of the final decision and original rationale for requiring ammonia slip to trigger a recondition or change out of the SCR?*

**Response:** The requested modification does not change the underlining assumptions or rationales for the Final Decision for the Roseville Energy Park ("REP"). The REP will continue to comply with 10 ppmv @15 percent O2 averaged over 1 hour (sometimes referred to simply as "10 ppm") ammonia slip value established by the Placer County Air Pollution Control District ("PCAPCD" or the "District") as set forth in the Final Decision. The catalyst performance continues to be effective such that ammonia slip has not reached 5 ppm @ 15 percent O2 averaged over 24 hours. (See, Final Decision p. 8.)

The requested modification relating to AQ-51 had two parts. First, Roseville Electric requested that PCAPCD include language from the Final Decision that was inadvertently omitted regarding replacement, repair, and reconditioning of the SCR catalyst following an ammonia slip. Second, as discussed below, Roseville Electric proposed that the SCR catalyst be replaced, repaired, or reconditioned within 24 months of an ammonia slip exceeding 7 ppm, to the benefit of Roseville's customers without any resulting potentially significant environmental effects.

a) *Please explain what has changed with regards to the environmental background that would justify this change since the original proceeding.*

**Response:** Since there are no environmental effects associated with the proposed modification, given that the 10 ppm slip limit is unchanged, the environmental background is not relevant to the modification. Having said that, PCAPCD reports that the latest triennial update indicates general improvement of the air quality in the District:

Placer County has made considerable progress in improving air quality. Air quality indicators show overall reductions of peak ambient ozone and county-wide exposure to unhealthy concentrations since 1990. It represents that overall exposure to residents from ozone continues to decrease in Placer County. Emission inventory information shows a significant overall reduction of ozone precursor emissions in the 2012 through

2014 time period. (PCAPCD, 2015 Triennial Progress Report, p. 37.) Available at: <http://www.placer.ca.gov/departments/air/planning-and-monitoring>

b) *Can you please provide data documenting that the area is ammonia rich rather than ammonia limited as concluded by Energy Commission staff in the original proceeding?*

**Response:** Publicly available documents confirm that the Sacramento region is ammonia rich. The joint PM 2.5 plan submitted by PCAPCD, El Dorado County Air Quality Management District, Sacramento Metropolitan Air Quality Management District, and Yolo-Solano Air Quality Management District, requesting that that EPA re-designate the area to attainment for the federal 2.5 standard noted as follows:

Generally ammonia is plentiful in the Sacramento and San Joaquin Valleys (Kleeman, 2005) (MacDonald et al, 2006), therefore ammonium nitrate formation is limited only by the availability of NOX in the atmosphere. Since the atmosphere has a sufficient amount of ammonia, ammonium nitrate is expected to vary proportionally to changes in NOX emissions. For example, a 10% increase in NOX would result in a proportional increase the ambient ammonium nitrate concentration by 10% (1:1). This situation is also known as a NOX limited condition. (*PM2.5 Implementation/Maintenance Plan And Redesignation Request For Sacramento PM2.5 Nonattainment Area, With Errata Sheet Incorporated On February 5, 2014, October 24, 2013, p. 7-3.* Available at: [http://www.airquality.org/plans/federal/pm/PM2.5/2014-02-05\\_PM25\\_PLAN.pdf](http://www.airquality.org/plans/federal/pm/PM2.5/2014-02-05_PM25_PLAN.pdf).)

This joint filing confirms that the updated data reflects the PCAPCD and the surrounding districts are ammonia rich.

c) *What is the basis for needing 24 months rather than 12 months to bring the catalyst back into compliance?*

**Response:** As a threshold matter, the REP is in compliance and thus there is no need “to bring the catalyst back into compliance.” Roseville’s interests are based on protecting its customers and community, without any significant environment effects. First, and foremost, the REP will be in compliance with the 10 ppm ammonia slip rate limit under all conditions. As discussed below, PCAPCD’s stated interest is maintaining the slip below the 10 ppm limit. Allowing a period of 24 months, where the emissions from this Facility are so low and always below the 10 ppm threshold, benefits ratepayer-owners by not exposing them to the cost of unnecessarily replacing or repairing equipment where the Facility is in compliance with applicable laws, ordinances, regulations and standards (“LORS”). Unlike a for profit investor-owned utility with shareholders, any increased costs for the REP are passed on directly to the ratepayer-owners of Roseville Electric.

Furthermore, the costs to replace a SCR catalyst are not insignificant. Given this, Roseville Electric requested a longer period for replacement, repair, and reconditioning to allow sufficient time for a prudent evaluation of needs and an adequate amount of time to obtain the necessary approvals, acquire the required equipment, and to schedule the repair. Roseville Electric must determine the requisite costs, budget accordingly, and obtain City Council approval for the expenditure before ordering the equipment from the manufacturer. This time is in addition to the lead time required from the manufacturer to obtain the equipment. All of these steps must occur before Roseville can even begin to take steps on-site to prepare for the equipment replacement, which again takes time to complete. Thus, Roseville Electric requested the longer period to ensure that there is adequate time to plan for, procure, install any replacement equipment, and account for any unexpected contingencies that may require time to resolve.

d) *What is the basis for specifying 7 ppm as the upper limit before a replacement, repair or recondition is required?*

**Response:** The Facility will have to maintain compliance with all applicable air emissions standards, including the 10 ppm slip limitation, which will not be an issue even with the modest increase. The Facility averages about 22 pounds per day, whereas the permitted limit is 211.8 pounds. The requested modification from 5 ppm to 7 ppm is

reasonable, given these facts. The modest increase will also provide Roseville Electric with flexibility in the timing of future repairs, reconditioning, and replacement, when they become necessary. As just one example, the greater flexibility requested means that Roseville Electric can schedule any future repairs, reconditioning, and replacement during times when the utility's load is expected to be low. This means that Roseville will have the ability to plan for the outage, ensure electric reliability during any future outages, and purchase replacement power for those future outages on the most favorable terms and conditions, resulting in lower costs to ratepayer-owners.

e) *What is the PM10/PM2.5 air quality impact of an ammonia slip rate of 7 ppm averaged over 24 hours, including background plus the project's incremental impact?*

**Response:** As demonstrated above, the District is ammonia rich, and any potential increases in PM10/PM2.5 levels as a result of the 7 ppm ammonia maintenance trigger are less than significant. The emissions from the Facility are at all times below the 10 ppm limit established in the Commission's CEQA-equivalent approval process. The current timeframe for replacement, repair or reconditioning of the SCR catalyst is overly restrictive and costly to Roseville's ratepayer-owners. Modifying the timeframe to replace, repair, or recondition the SCR catalyst does not affect the 10 ppm limit. The Commission's Final Decision finds that this limit is protective of the environment and complies with applicable LORS.

2) *Please confirm the Placer County APCD is expected to keep the current ammonia slip value of 10ppmv @15 percent O<sub>2</sub> averaged over 1 hour.*

**Response:** Yes, the PCAPCD has confirmed to Roseville Electric that the District is expected to keep the current ammonia slip value of 10 ppm.

PCAPCD confirmed this standard during a July 19, 2016 conference call between the District and Roseville Electric. The PCAPCD confirmed that from their perspective, the critical issue is maintaining compliance with the 10 ppm limitation. Specifically, PCAPCD stated that it has no objections or concerns with Roseville Electric's requested modification of AQ-51 so long as the facility maintains compliance with the 10 ppm ammonia slip limit.

In response to a question posed by Roseville Electric during that call, PCAPCD Staff stated that it would not object to revising the first paragraph of AQ-51 to be simply one sentence: "AQ-51: The ammonia slip shall not exceed 10ppmv @ 15 percent O<sub>2</sub> averaged over 1 hour."

Roseville Electric acknowledges that its letter filing with the Commission did not request deletion of the replacement, repair or reconditioning language from the Condition and Verification language of AQ-51. If, however, the Commission Staff is amenable to discussing this simplification, Roseville Electric welcomes discussion with Commission staff regarding this modification of AQ-51.

*Jamie Johnson*

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