Owens, Mike

From: Eric Olsen <eolsen@deseretpower.com>
Sent: Thursday, April 23, 2015 5:20 PM
To: Owens, Mike
Cc: Kinard, Sherrie; Patefield, Scott; Dave Crabtree; Gene Grindle; Daly, Carl
Subject: RE: Response to February 19, 2015 Letter (Title V Permit Administrative Correction)

Mike,

After I sent the email below, you called me that afternoon to discuss the seven (7) items listed. Concerning number four, I mentioned that the word "potential" did not seem accurate nor is it included in our PSD wording. You mentioned that you could not remember why you had included the word "potential". We then discovered, while we were talking on the phone, that the Part 60 language (Title V page 34 and 40 CFR 60.51Da(a)) included the word "potential." You thought that was why you had included it in the PSD section. I had mentioned that "potential" is different than we or industry uses (use actual and potential would actually increase our reported percent removal). You recommended that I call Robert Vollaro at Headquarters and ask him the meaning of "potential combustion concentration" in Part 60. I talked to Mr. Vollaro yesterday. I told you I would follow up with you after I talk to him, hence this email.

He referred me to 40 CFR 60.41Da (Definitions). It reads:

> *Potential combustion concentration means the theoretical emissions (nanograms per joule (ng/J), lb/MMBtu heat input) that would result from combustion of a fuel in an uncleaned state without emission control systems. For sulfur dioxide (SO2) the potential combustion concentration is determined under §60.50Da(c).*

40 CFR 60.501Da(c) reads:

> *(c) The owner or operator shall determine compliance with the SO2 standards in §60.43Da as follows:*
> *(1) The percent of potential SO2 emissions (%Ps) to the atmosphere shall be computed using the following equation:*

$$\%P_s = \frac{(100 - \%R_f)(100 - \%R_g)}{100}$$

Where:

%Ps = Percent of potential SO_2 emissions, percent;

%Rf = Percent reduction from fuel pretreatment, percent; and

%Rg = Percent reduction by SO_2 control system, percent.

We are in compliance with Part 60 as written. The issue is "potential combustion concentration" in Part 60, as defined, is actually the "actual combustion concentration" due to %Rg (in equation above) being actual not potential. Without the definition of Part 60 at least referred to in the Title V PSD section, I would still recommend Item #4 in the previous email. I believe it should be corrected at some point in time to in read as recommended in the email below or include wording in the Title V PSD section that refers to the Part 60 definition. Otherwise, SO2 percent of potential combustion concentration or percent removal are two different numbers pursuant to Part 60 and PSD (without a definition and just going by a general definition).

Please let me know if you have any questions.

Thanks,
Eric C. Olsen, P.E.

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From: Eric Olsen
Sent: Tuesday, March 31, 2015 11:27 AM
To: 'Carl Daly (Daly.carl@Epa.gov)'
Cc: Kinard, Sherrie; Mike Owens (owens.mike@epa.gov); Patefield, Scott; 'Dave Crabtree (Crabtree@deseretpower.com)'; Gene Grindle
Subject: Response to February 19, 2015 Letter (Title V Permit Administrative Correction)

Dear Mr. Carl Daly,

Referring to a letter we received from you dated February 19, 2015 regarding, "Request for Confirmation that Deseret is Seeking An Administrating Permit Amendment", I was asked to respond to this letter. This email acts as our confirmation to that letter that Deseret is requesting EPA to process an administrative permit amendment pursuant to 40 CFR 71.7(d) to make the change(s) to the permit. The permit applicant and owner of the Bonanza Power Plant should have been "Deseret Generation & Transmission Co-operative" not "Deseret Power Electric Cooperative". This correction should be made to all like references throughout the permit.

In addition to this request, I spoke with Mike Owens yesterday specifically about another administrative correction (Item #1 below). He encouraged me to include it with this response. I have also included a few other administrative corrections that I have noticed that should be made. Here are the others I have noticed:

1. On page 31 of the Title V permit (II.A.2.(e)(ix)), an Explanatory Note should be added that states that Part 75 satisfies the Part 60 for the Outlet SO_2 CEMS span value requirement. The Explanatory Note could read:

   [Explanatory note: Related provision for SO_2 CEMS at 40 CFR Part 75, Appendix A, section 2.1.1, allows for the use of a single SO_2 analyzer with dual range (i.e., low- and high-scales) for Outlet SO_2 CEMS. The high span shall be determined in accordance with section 40 CFR Part 75, Appendix A, 2.1.1.3. The permittee has used this provision to calculate a high span value between, and including, 800-1000 ppm. The low span shall be determined in accordance with section 40 CFR Part 75, Appendix A, 2.1.1.4. The permittee has used this provision to calculate a low span value between, and including, 40-100 ppm. The permittee has used this provision to calculate the high and low span values; however, §60.49Da(i)(5) requires 50% of maximum estimated hourly potential emission as a span value. As provided by §60.49Da(i)(5), if the requirements of Appendix A of 40 CFR Part 75 are satisfied for the Outlet SO_2 CEMS, then the requirements of §60.49Da(i)(5) are also satisfied for the Outlet SO_2 CEMS.]

2. On page 54-55 of the Title V permit (II.A.3.(d)(ii)), the bottom paragraph that starts, "As of January 1, 2012…" is no longer valid. The CEDRI reporting requirement has been revised/finalized by EPA since the Title was issued in January 2015. It is now required to report through ECMPS until April 16, 2017 and after through CEDRI. I would recommend this permit requirement reflect the effective version of 40 CFR 63.10031(f).

3. On page 63 of the Title V permit (II.A.6.(a)(vii)(C)), it states that the CAM report shall be submitted to EPA with the "quarterly" emission reports required under 40 CFR Part 60. The emission reports (CEMS Compliance Reports) are required to be submitted semi-annually not quarterly (page 37 of permit, II.A.2.(g)(viii)). The Opacity Reports are required to be submitted quarterly, but there is a provision to move the quarterly Opacity Reports to semi-annually after one year. I would recommend deleting the word "quarterly" to allow the CAM

report reporting requirement to line up with the appropriate reporting requirement of 40 CFR Part 60 and as stated in the Title V permit. I believe this was a typo.

4. On page 64 of the Title V permit (II.A.6.(b)(ii)), it states that "…and 10 percent of the potential combustion concentration (90 percent reduction),…" I believe the word "potential" is a typo an should be deleted or changed to "actual". The PSD just says, "The Permittee must achieve at least 90% SO_2 removal efficiency based on 30-day rolling average."

5. On page 67 of the Title V permit (II.A.7.(b)), I believe the two references of II.A.5.(b) and II.A.5.(c) are typos and should have been II.A.6.(b) and II.A.6.(c), respectively.

6. On page 2, Attachment 1 of the Title V permit, the following should be corrected (strikethrough is delete, red is add):

   Limestone is ground on site in ball mills and mixed with water to a density ~~of~~ between 30% and 35% to produce the needed slurry. The slurry is mixed into the absorber modules to the module percent solids between 13% and 17%, with a pH between ~~5.5~~ 5.3 and 6.0. The base and lower portion of each module tower is the slurry reaction tank. Each module also includes a bulk entrainment separator and mist eliminator vanes for water droplet removal. A mist eliminator cleaning system is used to clean the vanes. On occasion, scrubber enhancers such as adipic acid are added to the slurry as needed to aid in the removal process. The solids formed in the scrubbing process are removed by a sludge handling system, mixed with flyash and conveyed or trucked to an on-site landfill.

7. On page 3, Attachment 1 of the Title V permit, the following should be corrected (strikethrough is delete, red is add):

   <u>Stack parameters</u>: The plant's main boiler stack is ~~604~~ 600 feet high. It is constructed with a concrete shell and acid resistant brick liner. The exit diameter is 26 feet with an average exit temperature of about 120 degrees F. The stack flow rate at full load is estimated to be about 1.3 million SCFM with the new ruggedized rotor installed and operating.

Let me know if this email is not sufficient and you need a signed letter to satisfy the confirmation request in your February 19, 2015 letter. Also, please let me know if you have any questions regarding any of these corrections.

Thanks,

Eric C. Olsen, P.E.

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