From: Bohning, Scott
To: Lee, Anita; McKaughan, Colleen; Lyons, Ann
Subject: RE: Questions regarding NGS
Date: Monday, December 16, 2013 9:20:35 AM

Anita / Colleen /Ann:

On "other e-mail" (with link to article http://www.arizonadailyindependent.com/2013/11/11/epa-targets-wrong-cause-of-haze-in-grand-canyon/), I'd say the following, some versions of which we'll likely have to use in our RTC. This is probably too much detail to send out, and I suppose we also do not want to tie our hands in RTC. But for what it's worth:

- Biggest point is: While mobile sources and many other stationary sources do have substantial contributions to visibility impairment, it does not make sense to avoid putting reasonable controls on the largest single NOx source in the country. On a dollar per ton basis, the controls proposed by EPA are comparable to those implemented by hundreds of other sources around the country.

There is an "apples-to-oranges" problem in directly comparing BART visibility results for an individual source to visibility assessments from other techniques that consider multiple sources under current conditions, such as those in
the WRAP source apportionment pie chart.

- BART modeling is aimed at likely contribution to impairment from one individual large source; this is required under the RH rule in order to assess best retrofit controls. It is not focused on teasing out relative contributions of different individual sources or source types
- BART modeling is relative to natural conditions, rather than current conditions; this approach is appropriate given that natural conditions is the ultimate target. The visibility impact in deciviews appears larger against that cleaner background than it does against dirtier current conditions assessed using the WRAP source apportionment methods.
- BART modeling uses 98th percentile, other results are often based an average over the worst 20% of days (80th to 100th percentile);
- BART modeling focuses on conditions when the single source has biggest impacts, whereas monitoring and WRAP modeling results are representative of all sources and conditions, including some dominated by natural sources like wild-blown dust, or fire (pie chart organic carbon, in addition to elemental carbon)

- Scott B.

From: Lee, Anita
Sent: Monday, December 16, 2013 8:04 AM
To: McKaughan, Colleen; Lyons, Ann; Bohning, Scott
Subject: RE: Questions regarding NGS

Is this ok as a response?? Too much detail? I will forward the "other email" I refer to in the response (mainly for Scott's benefit).

Hi Susanne,

Thank you for the invitation to attend the MEC meeting. I won't be available to attend.

To answer your question, the capacity of each of the three units is 750 MW. Under scenario A2 of the TWG Alternative (see Table 3 of the Supplemental Proposal), the owner/operator may increase capacity of the remaining two units by no more than 189 MW. Therefore, under A2, the net reduction in capacity would be 561 MW (closure of 750 MW unit minus capacity increase of 189 MW). The TWG Agreement indicated that the operator will only increase capacity of the remaining two units if it can do so without triggering PSD permitting requirements. Scenario A3 addresses what would occur if the operator cannot increase capacity without triggering PSD.

Regarding your other email, in addition to Colleen's reply, I would add that the Regional Haze Rule focuses on the 98th percentile of impacts (i.e., in a given year, the 8th highest impact day) at each Class I area, and that the modeling assesses the visibility impact, with and without controls, that NGS would have on a given Class I area. This is not the same as assessing the visibility improvement at a given Class I area.

Anita Lee, PhD
Environmental Scientist
US EPA, Air Division, Planning Office (Air-2)
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3958

From: McKaughan, Colleen
Sent: Thursday, December 12, 2013 4:26 PM
To: Lee, Anita; Lyons, Ann
Subject: Re: Questions regarding NGS

Redactions: Attorney-client privilage

[redacted]

From: Lee, Anita
Sent: Thursday, December 12, 2013 3:37:43 PM
To: McKaughan, Colleen; Lyons, Ann
Subject: FW: Questions regarding NGS

[redacted]

Thanks!!

Anita Lee, PhD
Environmental Scientist
US EPA, Air Division, Planning Office (Air-2)
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3958

From: Susanne Cotty [mailto:scotty@pagnet.org]
Sent: Thursday, December 12, 2013 12:30 PM
To: Lee, Anita
Cc: 'Robert Bulechek'; McKaughan, Colleen
Subject: RE: Questions regarding NGS
Importance: High

Anita,

Colleen will be on vacation on Dec. 19th when the Tucson/Pima County Metropolitan Energy Commission meets (8:00 am-9:30am-approximately). Would it be possible for you to join in the meeting discussion of the NGS proposals via Skype? The committee has received the posters and PowerPoint presentation shown at the Nov. 15th open house/public hearing.

We would greatly appreciate your input and guidance as we evaluate the proposals and make our recommendation to the Tucson Mayor and Council and the County Board of Supervisors.

QUESTION: Would the emission benefits gained by shutting down 1 generator in the TWG proposal be negated by the increased electricity production by the other 2 generators? (Does this proposal stipulate the level of operation for the 2 remaining generators?)

Thank you for considering our invitation to join the meeting.

Susanne T. Cotty
scotty@pagnet.org

'Like PimaCleanAir' on Facebook

From: Lee, Anita [mailto:Lee.Anita@epa.gov]
Sent: Monday, December 02, 2013 3:19 PM
To: scotty@pagnet.org
Cc: McKaughan, Colleen; 'Robert Bulechek'
Subject: RE: Questions regarding NGS

Hello Susanne,

Thanks for your email and for your feedback on the open house/public hearing and presentation materials!

I am attaching a PDF of the posters, which is also included in the electronic docket for this rulemaking. Unfortunately, in the attached file, the map is pretty low quality (it is a very large file and in its original high quality format, it is too large to send out from our email system). Please let me know if you would like the original version of the map. I may be able to transfer it to you if you have an FTP site or drop box.

Regarding your questions:

- Will the amount of coal burned for electricity generation (i.e. CO2 production) differ under the 3 options? (I know Unit 1 would close in 2019 under the TWG proposal- thus lowering coal use but what about the other 2 options?)

Under BART and Alternative 1, where all 3 units remain open with SCR in operation (but with different SCR installation years), we do not expect a reduction in the amount of coal burned at NGS.

- Provided there are differences in coal use among options 1 and 2, what would be the differences between the 3 options for short-term (e.g. 10 years) and long term (20-30 years) in coal use/CO2 emissions?

N/A.

- What is the 5-year deadline for reaching NOx emission limits in the 1st proposal based on ? (conditions/equipment at NGS, the Clean Air Act or other factors?)

The Clean Air Act (Section 169A(b)(A) that requires facilities that are subject to BART to procure, install, and operate BART as expeditiously as practicable, and Section 169A(g)(4) that defines "as expeditiously as practicable" as "as expeditiously as practicable but in no event later than five years after the date of [plan approval]").

Thank you, and please let me know if you have additional questions.

Anita Lee, PhD
Environmental Scientist
US EPA, Air Division, Planning Office (Air-2)
75 Hawthorne Street
San Francisco, CA 94105
(415) 972-3958

From: Susanne Cotty [mailto:scotty@pagnet.org]
Sent: Monday, December 02, 2013 10:37 AM
To: Lee, Anita; R9ngsbart
Cc: McKaughan, Colleen; 'Robert Bulechek'
Subject: Questions regarding NGS

Dear Anita,

I attended the open house/public hearing held in Tucson and Nov. 15th and found it very information and enjoyed the opportunity to speak with EPA staff regarding NGS proposals and diverse issues.

The Tucson/Pima County Metropolitan Energy Commission (MEC), of which I am a member and Secretary, is considering submitting a letter to the Tucson Mayor and Council and the County Board of Supervisors in support of one of the options regarding NOx emission reductions at the Navajo Generating Station.

A few questions arose at the last MEC meeting during our initial discussion of the 3 proposals:

- Will the amount of coal burned for electricity generation (i.e. CO2 production) differ under the 3 options? (I know Unit 1 would close in 2019 under the TWG proposal- thus lowering coal use but what about the other 2 options?)
- Provided there are differences in coal use among options 1 and 2, what would be the differences between the 3 options for short-term (e.g. 10 years) and long term (20-30 years) in coal use/CO2 emissions?
- What is the 5-year deadline for reaching NOx emission limits in the 1st proposal based on ? (conditions/equipment at NGS, the Clean Air Act or other factors?)

Also, are those displays shown at the open house on available for viewing or in a PowerPoint format? They were very helpful in illustrating the differences between the various proposals.

Best wishes,

Susanne T. Cotty

Senior Air Quality Planner

Pima Association of Governments
Sustainable Environment Program
177 N. Church Ave., Suite 405
1 East Broadway, Suite 401 ***(New location Jan. 2014)***
Tucson, AZ 85701

(520) 792-1093

'Like PimaCleanAir' on Facebook