

Colusa comments
 rob
 to:
 Shaheerah Kelly
 10/12/2009 10:02 AM
[Show Details](#)

Good Morning,

Although I still need more time to comprehensively comment, Attached please find my comments regarding the Colusa Generating Station ammendment and extension.

Please add me to your interested parties list for any PSD permit, modification, extension or action.

Thank You

Rob Simpson
 27126 Grandview Avenue
 Hayward CA. 94542
 510-909-1800
rob@redwoodrob.com

----- Original Message -----

Subject: Colusa comments
 From: rob@redwoodrob.com
 Date: Fri, October 09, 2009 11:49 am
 To: kelly.shaheerah@epa.gov

To Shaheerah Kelly,

Thank you for speaking with me today regarding the COLUSA GENERATING STATION PSD Permit. I would like to submit comments (including these) but only recently discovered the action. I think that I have demonstrated an interest in PSD permits (see EAD remand 08-01 et al) I have repeatedly asked to to be added to Region 9 interested parties list (below) I have no record of having received notice of the original permitting or this modification. Did you send me Notice of this action? I am presently preparing comments for the Humboldt Bay repower project PSD permit and the Avenal PSD permit. I do not have sufficient time to promote participation and effectively comment on this action in the remaining time under the present notice. Please extend the comment period by 45 days so that I can participate. It appears that the intent of the notice was to accept comments only relative to the "proposed permit revision" is this correct? Can you direct me to the Authority for this limitation it feels picemeal or bifurcated. I would like to comment on the entire permit. Can you also inform me of, if this revision includes an extension of the permit term or when does the permit expire?

Thank You,
 Rob Simpson
 510-909-1800

----- Original Message -----

Subject: Avenal Energy Project (SJ 08-01)
 From: Rivera.Shirley@epamail.epa.gov
 Date: Wed, June 03, 2009 5:21 pm
 To: rob@redwoodrob.com

Cc: Rios.Gerardo@epamail.epa.gov

Mr. Simpson (510-909-1800),

Thank you for your patience in receipt of this summary.

As mentioned, the following is my understanding of the information you expressed (regarding the Avenal Energy Project) in your call to me this afternoon. If there are corrections or clarifications you would like to make to this information, please "reply all" so that my manager, Mr. Gerardo Rios (415-972-3974), also has the benefit of receiving that information.

a) Process to file a complaint with EPA: You have a question - What is the process to file a complaint with the EPA? (You would like to file a complaint that addresses your issues of concern. See below.)

b) Issues of concern: The concern you expressed is that the San Joaquin Valley Unified APCD, for the issuance of its PDOC, did not properly follow what you understand to be the requirements for public notification of the Clean Air Act requirements (e.g., 40 CFR Part 51.166?). By not doing so, you noted that this did not provide for informed public participation. Furthermore, you also are concerned that the FDOC was not issued in a manner that makes it a valid document; therefore, the PSD process should not rely on the FDOC for information.

c) Contact with San Joaquin Valley APCD - You have already contacted the APCD, and they are not going to reopen the DOC process.

And as noted, we will add your name and email address to our notification list for PSD permits.

Best regards,

- Shirley

Shirley F. Rivera

T: (415) 972-3966 | F: (415) 947-3579 | Rivera.Shirley@epa.gov

U.S. EPA, Region 9, Air Permits Office (AIR-3) | 75 Hawthorne St., San Francisco, CA 94105

To Shaheerah Kelly,

Regarding Colusa PSD permit Modification.

Thank you for the opportunity to comment on the Colusa PSD permit modification [EPA-R09-OAR-2009-0697](http://www.epa.gov/Region7/programs/artd/air/nsr/nsrmemos/extnsion.pdf). As I mentioned in my previous communication I "only recently discovered the action. I think that I have demonstrated an interest in PSD permits (see EAD remand 08-01 et al) I have repeatedly asked to to be added to Region 9 interested parties list (below) I have no record of having received notice of the original permitting or this modification. Did you send me Notice of this action? I am presently preparing comments for the Humboldt Bay repower project PSD permit and the Avenal PSD permit. I do not have sufficient time to promote participation and effectively comment on this action in the remaining time under the present notice. Please extend the comment period by 45 days so that I can participate. It appears that this modification (while not disclosed in the public notice) appears to constitute an extension of the 18 month commencement of construction deadline found in 40 CFR 52.21 and so it should be disclosed as such in the public notice and be processed consistent with "EPA Region IX Policy on PSD Permit Extensions Dated September 8, 1988
<http://www.epa.gov/Region7/programs/artd/air/nsr/nsrmemos/extnsion.pdf>

This permit appears to be based upon a PSD application which was received by Region 9 on December 22, 2006. This data appears to be outdated. It appears that comments were received from CARE then withdrawn on the original permit after some settlement with CARE. I hereby submit those comments of CARE as my own at this time. It appears that greenhouse gases were not adequately analyzed for the original permit or the modification.

BACT

CO BACT WATER BATH HEATER

The Colusa Generating Station Water Bath Heater is expected to emit CO at 100 parts per million by volume dry (ppmvd). Seven sources have lower CO emission rates than the CGS's fuel gas heater, ranging from 27 to 72 ppmvd.¹ The AES Puerto Rico Cogen application # PR-007 has a limestone dryer with an emission rate of 27 PPM @3% O2 for CO. The BP Exploration (Alaska) Inc, Milne Point Production application Number AK-047 also has an emission rate of 27 PPM @3% O2 for CO. South Cal Gas application number SCAQMD AN: 347641 has an emission rate of 50 ppm @ 3% O2 for CO. Norton Energy Storage, LLC application # OH-0264 has a CO emission rate of 53

¹ From: Jerry.Salamy@CH2M.com To: Shaheerah Kelly/R9/USEPA/US@EPA Cc: <CRPf@exchange.pge.com>, Andrea@agrenier.com Date: 04/08/2009 05:04 PM Subject: PG&E CGS Water Bath Heater and Wet Surface Air Cooler
<http://www.regulations.gov/search/Regs/home.html#docketDetail?R=EPA-R09-OAR-2009-0697>

ppm @ 3% O₂ for CO which has been verified in practice. The PSD permit must adopt a lower limit for CO emissions for the Water Bath heater.

NOX BACT WATER BATH HEATER

The Colusa Generating Station Water Bath Heater is expected to emit NO_x at 30 parts per million by volume dry (ppmvd). Based on a review of the EPA's RACT/BACT/LAER Clearinghouse, California Air Resources Board Statewide Best Available Control Technology (BACT) Clearinghouse, and the San Joaquin Valley Air Pollution Control Districts Best Available Control Technology (BACT) Clearinghouse there are 4 sources which report a lower NO_x emission rate than the CGS WBH, ranging from 9 to 20 ppmvd of NO_x. NELCO Products, force circulation oil heater, application number SCAQMD AN: 371784 has a 12ppm @ 3% O₂ emission rate. South Cal Gas, heater, application # SCAQMD AN: 347641, has a 20 ppm @ 3% O₂ emission rate for NO_x. The SJVUAPCD BACT clearinghouse lists two BACT determinations of 9 ppm and 12 ppm as BACT for NO_x emissions from a pre heater.²

BASELINE EMISSIONS

According to Ambient Air Quality Impact Report for the Colusa Generating Station, Clean Air Act Prevention of Significant Deterioration Permit Permit No. SAC 06-01 dated May of 2008, the modification of the CGS triggers the adjustment of baseline emissions to include the adjacent Delevan compressor Station. As stated in the 2008 permit:

*"As shown in Figure 4-1, CGS will be located near the Delevan Compressor Station (DCS), an existing natural gas compressor station that is also owned and operated by PG&E and located west of Glenn-Colusa Bridge and Dirks Road. The facility will be fueled by natural gas delivered from DCS to the site via a new 8 inch, 1,500-foot natural gas pipeline owned and operated by PG&E. Since CGS and DCS (1) will both be owned by PG&E (under common control), (2) have the same 2-digit Standard Industrial Classification (4911 for CGS and 4922 for DCS; Major Group 49, Electric, Gas, and Sanitary Services), and (3) will be located on contiguous or adjacent properties and physically connected by a pipeline, both facilities will be considered a single source for Title V purposes. Designation of these two facilities as a single source does not affect the current PSD evaluation. If the source is subsequently modified, however, the source's "baseline actual emissions" under 40 CFR 52.21(b)(48) will comprise emissions from both facilities (CGS and DCS)."*³

²

From: Jerry.Salamy@CH2M.com To: Shaheerah Kelly/R9/USEPA/US@EPA Cc: <CRPf@exchange.pge.com>, Andrea@agrenier.com Date: 04/08/2009 05:04 PM Subject: PG&E CGS Water Bath Heater and Wet Surface Air Cooler
<http://www.regulations.gov/search/Regs/home.html#docketDetail?R=EPA-R09-OAR-2009-0697>

³

Ambient Air Quality Impact Report Colusa Generating Station Clean Air Act Prevention of Significant Deterioration Permit Permit No. SAC 06-01 page 7

The PG&E Delevan compressor Station has NOx emissions of 356 tons per year.⁴ That Delevan compressor Station combined with the CGS will emit 540 tons per year of NOx on adjacent parcels owned and operated by PG&E connected by a common pipeline. That equates to 1.47 tons per day of NOx emissions from the same company PG&E. The combined projects emissions must be included in the soils and vegetation analysis to determine if there are any significant impacts to biological and agricultural resources. The original nitrogen deposition analysis did not include both facilities and did not include nitrogen deposition impacts from the projects 159 tons per year of ammonia emissions. The ammonia emissions will have a larger impact than the project Nox emissions.

BIOLOGICLA IMPACTS

The AMBIENT AIR QUALITY IMPACT REPORT for the Colusa Generating Station PSD Permit No.: SAC 06-01 states on page 5:

*Because the proposed equipment changes will not result in any new construction outside the current footprint of the facility, and will reduce CGS's facility-wide emissions of all pollutants covered by the Permit, EPA concludes that the proposed changes will not affect listed species in a manner that was not considered in the BO. By e-mail on August 13, 2009, FWS confirmed that no additional ESA consultation is required for this project.*⁵

The applicant has recently filed an amendment at the CEC to, "to request the CEC's approval to amend the CGS project description to allow slight modification of the size and layout of the switchyard and the electric transmission interconnection route."⁶ The CEC final decision approved a total of 12 new towers, four on site (within the 100 acre parcel and eight offsite. The applicant's new proposal will add a total of 20 new towers with eight on site and 12 offsite. As stated on page 2-2 of the amendment, "Construction of the new towers has the potential to slightly increase permanent impacts to Swainson's hawk foraging habitat."⁷ "The reconfigured switchyard/substation will result in an

<http://www.regulations.gov/search/Regs/home.html#docketDetail?R=EPA-R09-OAR-2008-0436>

⁴ ARB Almanac 2009 – Appendix A: County Level Emissions and Air Quality by Air Basin page A-38
<http://www.arb.ca.gov/aqd/almanac/almanac09/pdf/appa09.pdf>

⁵ AMBIENT AIR QUALITY IMPACT REPORT for the Colusa Generating Station PSD Permit No.: SAC 06-01 states on page 5:

⁶ http://www.energy.ca.gov/sitingcases/colusa/compliance/documents/2009-01-21_AMENDMENT_PETITION_2_TN-49817.PDF

⁷ Pacific Gas & Electric's Colusa Generating Station License Petition Amendment #2
http://www.energy.ca.gov/sitingcases/colusa/compliance/documents/2009-01-21_AMENDMENT_PETITION_2_TN-49817.PDF page 2-2

additional 0.87 acre of disturbance of annual grassland. The two project component changes will result in a total of 1.15 acres of additional impacts to annual grassland beyond what was originally permitted in the CEC's Final Decision for the CGS project.”⁸ The Biological opinion did not include impacts and mitigation for the Swainson hawk. The May 2008 SOB states the conclusions of the Biological assessment:

*“On March 14, 2008, the Service issued its biological opinion. According to the biological opinion, the Service determined that the proposed project was likely to directly affect the federally-listed vernal pool tadpole shrimp (Lepidurus packardii) and vernal pool fairy shrimp (Branchinecta lynchi), and permanently affect the giant garter snake (Thamnophis gigas). In the biological opinion, the Service discusses various conservation measures proposed by PG&E, and the biological opinion also specifies PG&E’s conservation responsibilities, including purchase of vernal pool preservation and creation credits at a Service-approved conservation bank and purchase of giant garter snake habitat credits from a mitigation bank approved by the Service and the California Department of Fish and Game.”*⁹

The original biological opinion did not consider impacts or provide mitigation for impacts to the Swainson hawk. Neither the original biological opinion nor the current SOB has analyzed the impacts from the placement of six new transmission towers or the realignment of the original transmission towers. Consultation with the USFWS must be reinitiated and completed before approval of PSD permit per 50 CFR Section 402.1 (3).¹⁰

The applicant’s addition of the WSAC Unit will increase operational water use by 21 Acre feet per year from 130 AFY to 151 AFY. The applicant’s agreement with the Glen-Colusa Water District guarantees 130 AFY for the project but any additional water is subject to the water shortage provisions in Article 9A of the agreement.¹¹ The implications of the additional water usage and its impact on the environment should be discussed in the SOB.

REMOVAL OF THE AUXILLARY BOILER

The original PSD permit included an Auxiliary Boiler. According to the applicant, “A natural gas-fired auxiliary boiler rated at 44 million BTU/hr will be included to provide steam to shorten the time required for plant starts.”¹² Since the applicant is

⁸ Pacific Gas & Electric's Colusa Generating Station 1=»project (06-AFC"9C) License Petition Amendment #2
http://www.energy.ca.gov/sitingcases/colusa/compliance/documents/2009-01-21_AMENDMENT_PETITION_2_TN-49817.PDF page 3-2

⁹ Air Quality Impact Report Colusa Generating Station May 2008 Page 45 of 47

¹⁰ “the Proposed action is subsequently modified in a manner that causes an effect to listed species that was not considered in this opinion. 50 CFR Section 402.1 (3)

¹¹ CEC FSA page 4.9-10 <http://www.energy.ca.gov/2007publications/CEC-700-2007-003/CEC-700-2007-003-FSA.PDF>

¹² URS modeling MODELING PROTOCOL FOR THE COLUSA GENERATING STATION COLUSA COUNTY, CALIFORNIA July 12, 2006 page 2-1

“A natural-gas fired auxiliary boiler will be installed to facilitate plant starts.”

removing the boiler the SOB needs to evaluate the impact and BACT for startup and shutdown times and emissions. The project startup and shutdown emissions create the largest air quality impacts for the project. Current times for startup and shutdown do not meet BACT requirements for startup and shutdown emissions. Combined cycle turbines are currently being permitted which can achieve cold, warm, and hot starts taking no longer than 1-hour to demonstrate compliance with normal steady state emission limits.¹³ These fast start machines are now being utilized in most new power plant applications such as the new proposed Contra Costa Generating Plant, the Willow Pass Generating Station and the Marsh Landing Project. The Contra Costa Generating Station utilizing a GE Model 7FA with fast start capability is capable of achieving cold starts in one hour with only 96 pounds of NO₂ emissions as illustrated on page 5.1-9, table 5.16, of the AFC.¹⁴

Similarly the Marsh Landing Facility employing Siemens Flex Plant 10 (FP10) technology is capable of startup times of less than 12 minutes and worst case startup emissions of 38.7 pounds for NO₂ and 279.8 pounds per hour for CO emissions for a cold start.¹⁵

Also the Willow Pass Generating stations expected emissions associated with CTG Cold startup and shutdown event is 38.7 pounds of NO₂ and 279.8 pounds of CO. Based on vendor information, startup (i.e., the period from initial firing to compliance with emission limits) of the FP10 units is expected to occur within 12 minutes. During a shutdown event, the efficiency of the emission controls will continue to function at normal operating levels down to a load of 60 percent for the FP10 units; thus, shutdown periods and emissions are measured from the time this load is reached.¹⁶

<http://www.regulations.gov/search/Regs/home.html#docketDetail?R=EPA-R09-OAR-2008-0436>

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http://www.energy.ca.gov/sitingcases/contracosta/documents/applicant/afc/Volume%201/CCGS_5.1_Air%20Quality.pdf page 5.17

Contra Costa Generating Plant 09-AFC-4

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http://www.energy.ca.gov/sitingcases/contracosta/documents/applicant/afc/Volume%201/CCGS_5.1_Air%20Quality.pdf page 5.1-9

Contra Costa Generating Plant 09-AFC-4

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http://www.energy.ca.gov/sitingcases/marshlanding/documents/applicant/afc/Volume%20I/7_1%20Air%20Quality.pdf pages 7.1-49 table 7.1-16, page 7.1-8 08-AFC-03

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http://www.energy.ca.gov/sitingcases/willowpass/documents/applicant/afc/Volume_01/7.1%20Air%20Quality.pdf page 7.1-9 08-AFC-6

The EPA in a recent consent decree with PG&E has required fast start technology on GE Frame 7 machines the same equipment used at Colusa:

8 **V. ENVIRONMENTAL MITIGATION PROJECTS**
9 13. By January 1, 2010, PG&E shall submit applications to the CEC and/or BAAQMD,
10 as necessary, for the installation of the General Electric OPFLEX Turndown and OPFLEX
11 Startup NOx products as described in Paragraphs 14 and 15, below.
12 14. By January 1, 2011, PG&E shall install and make fully operational at GGS'
13 combined cycle units the General Electric OPFLEX Turndown product. EPA is requiring use of
14 this product in order to allow the combined cycle units to run at low capacity, thereby avoiding
15 shut downs, startups, and the higher NOx emissions associated with startups.
16 15. By January 1, 2011, PG&E shall install and make fully operational at GGS'
17 combined cycle units the General Electric OPFLEX Startup product. EPA is requiring use of this
18 product in order to reduce the higher NOx emissions associated with startups.

http://www.usdoj.gov/enrd/ConsentDecrees/2060_r_Pacific_Gas_and_Electric_Company_CDFinal.pdf page 7

EPA is cognizant of the fast start capability for these turbines and must require the project to meet lower startup and shut down times and emissions since they are allowing removal of the auxiliary Boiler which was installed "to provide steam to shorten the time required for plant starts."¹⁷

PM-2.5 EMISSIONS

While the project has proposed a reduction in PM 2.5 emissions the change in the physical configuration has led to higher ambient air concentrations for PM 2.5.¹⁸ The

¹⁷ URS modeling MODELING PROTOCOL FOR THE COLUSA GENERATING STATION COLUSA COUNTY, CALIFORNIA July 12, 2006 page 2-1

"A natural-gas fired auxiliary boiler will be installed to facilitate plant starts."

<http://www.regulations.gov/search/Regs/home.html#docketDetail?R=EPA-R09-OAR-2008-0436>

¹⁸ http://www.energy.ca.gov/sitingcases/colusa/compliance/documents/2008-08-14_AMENDMENT_PETITION_TN-47582.PDF page 3-3

projects PM 2.5 ambient air quality impact change from 2.73 ug/m³ in the original FDOC to 3.3 ug/m³ with the projects modifications triggering an assessment of the project PM 2.5 impacts under the new EPA PM 2.5 regulations. The May 2008 SOB states: "Consistent with existing EPA policy, PSD review of PM₁₀ emissions will serve as a surrogate for review of PM_{2.5} emissions while EPA continues to work through the significant technical difficulties associated with integrating the new PM_{2.5} standard into the PSD program." EPA has decided to repeal its recently adopted provision in 40 C.F.R. 52.21 (i) (1) (xi) that directs permitting agencies to use the so called surrogate approach in addressing PM 2.5 compliance issues. The PSD analysis must now demonstrate that the facility will use BACT to control PM 2.5 emissions and conduct an Air Quality Impact Analysis showing that the facility will not contribute to an exceedance of the PM 2.5 NAAQS for annual and 24 hour standards.

SHAM PERMIT

The permit reduces hourly PM 2.5 emission from the project from 20 pounds per hour to 13.5 pounds per hour. This is an administrative change as no new pollution control equipment or operating changes are being proposed. The permit fails to establish a basis for these reductions and they appear to lower the projects PM 2.5 emission to address the project's exceedance of the 5% FLAG level of concern for visibility at the Yolla Bolly-Middle Eel Wilderness Area.

"A Sham permit is when a source pursues a permit limit on the potential to emit (PTE) for a proposed project in order to limit the source to minor source levels as a means of circumventing the requirements of NSR. Most often this term applies to construction permits when a company wants to expedite commencement of construction so they are willing to take what they consider temporary limits on PTE such that the proposed project is not required to undergo NSR, and therefore they can get their permit without any of the NSR associated delays. The company's intent in such cases would be to remove the limiting permit conditions prior to normal operation, or shortly thereafter (e.g., request a revision to the permit, appeal the permit).

Another circumstance which may occur is when a major project is broken up into several smaller minor projects in order to avoid NSR requirements.

The USEPA's has expressed that a company should fully address the means of both initial and future compliance in the pre-construction permit application, that a complete review be performed, and the means of compliance determined prior to the issuance of a permit. The means and costs of continuous compliance should be part of the company's business decision when determining whether or not to construct.

Sham is defined as counterfeit, untrue, or fake."

<http://www.epa.state.il.us/air/new-source-review/new-source-review-part-1.html>

Conclusion

Please consider these comments and decline the permit or recirculate the draft permit after addressing these comments.

Respectfully submitted

By

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