

Gina McCarthy/DC/USEPA/US To Rob Brenner
 10/27/2010 09:30 PM cc
 bcc
 Subject Re: Fw: Draft Permit for Summit Power

No national is good. Thanks

Rob Brenner [I'll find out--I'm assuming you want som...](#) 10/27/2010 09:25:55 PM

From: Rob Brenner/DC/USEPA/US
 To: Gina McCarthy/DC/USEPA/US@EPA
 Date: 10/27/2010 09:25 PM
 Subject: Re: Fw: Draft Permit for Summit Power

I'll find out--I'm assuming you want someone from their national office. If you want someone from Texas, just send me back a note.

Gina McCarthy [Rob - Who is the Sierra Club person th...](#) 10/27/2010 09:07:29 PM

From: Gina McCarthy/DC/USEPA/US
 To: Brenner.Rob@EPA.GOV
 Date: 10/27/2010 09:07 PM
 Subject: Fw: Draft Permit for Summit Power

Rob - Who is the Sierra Club person that I need to speak with to get a sense of what they think of the Summit proposal?

----- Forwarded by Gina McCarthy/DC/USEPA/US on 10/27/2010 09:05 PM -----

From: Anna Wood/DC/USEPA/US
 To: Gina McCarthy/DC/USEPA/US@EPA
 Cc: Janet McCabe/DC/USEPA/US@EPA, Steve Page/RTP/USEPA/US@EPA
 Date: 10/27/2010 06:48 PM
 Subject: Re: Draft Permit for Summit Power

Hi Gina, to follow-up on your earlier request below, we checked in with Region 6 on the referenced permit. Please note the following:

The initial PSD permit application was submitted to Texas in April 2010. In talking with Region 6, the Region expects the draft PSD permit package from Texas within 30 days, which starts the PSD public comment period. A public hearing and permit appeal to the TCEQ is uncertain, but possible. Once the permit has gone through TCEQ's contested case hearing process (which would include any contested case hearing proceedings that goes to their administrative law judges) the permit would be final upon approval by the a majority of the commissioners. The permit is then subject to appeal in the state court and could be overturned by the State court system. With the upcoming required public notice and participation process required under Texas law, R 6 does not expect the Texas PSD permit to be issued and in effect before Jan. 2.

The Region also intends to carefully review the modeling when submitted. The proposed source is close to I-20. A potential issue is NO2 one-hour standard modeling, we will not know until we get the modeling.

Texas is a SIP approved program. As a result and as noted above, permit appeals go through the Texas administrative/court process for contested PSD permits instead of the EAB. We talked with Kristi Smith of OGC and she said the effective date of the Texas permit is a matter of state law.

Although Summit is expected to propose CCS, because of Texas's current views on GHG authority, we do not expect the Texas PSD permit to include GHG limits, including BACT limits.

Depending on the PSD FIP outcome for Texas, EPA Region 6 could end up being the PSD permitting authority for GHGs for this project.

The Region has heard very little on the environmental group front with respect to opposition to this facility. The Region suspects that if there is major opposition it will be on water use issues since it is in west Texas. There is also the chance that the enviros might split on the air benefits or issues on this plant as well.

We researched the permit on the Sierra Club's web site and it does not express outright opposition to the project and seems to suggest that unlike other projects underway in Texas (e.g. Tenaska) the Summit project is notable for including IGCC and CCS. We've cut and pasted the information on the Sierra Club web site for your convenience. Based upon what we understand Clean Air Task Force and Environmental Defense to be on these types of projects, we would not expect them to oppose the Summit Project.

Please let me know if you need anything else on this, thanks. Anna

- **Summit Power Seeks Approval for IGCC Coal Plant with 90% Carbon Capture**

Pushing the envelope further on coal plants, Summit Texas Clean Energy, LLC, a unit of Summit Power based in Washington State, has submitted its application for an air quality and Prevention of Significant Deterioration (PSD) permit to the Texas Commission on Environmental Quality (TCEQ). According to its application, the proposed 400 MW coal plant would be located at the former Penwell FutureGEN site in Ector County, and would utilize both Integrated Gasification Combined Cycle (IGCC) technology as well as a carbon dioxide capture and sequestration system to capture at least 90 percent of its carbon dioxide emissions. The resulting captured carbon dioxide would be sold under contract and injected underground for Enhanced Oil Recovery (EOR). In addition to electricity and carbon dioxide, the proposed facility would also produce urea to be sold for fertilizer production.

While another company, Tenaska, has also submitted an application to TCEQ that includes a promise to capture the majority of its carbon dioxide emissions, the Summit application is notable for including both IGCC technology and carbon capture. IGCC technology is a process whereby the coal – in this case Powder River Basin sub-bituminous coal – is first turned into a gas before being combusted to produce steam for electricity. As such, emissions are generally closer to those associated with a natural gas combined cycle plant than a traditional coal plant. More recently, NRG announced that it had received money through the ARRA – federal stimulus – to also design an “advanced” coal demonstration plant with carbon capture technology in Texas.

The Lone Star Chapter of the Sierra Club is currently seeking a contested case hearing on the Tenaska plant due to a variety of concerns about its emissions, water use and lack of enforceability on its CO2 capture numbers, and is currently reviewing the Summit application. Generally, Sierra Club has opposed all new applications for coal or petroleum coke plants in Texas due to concerns over criteria

air pollutant emissions, global warming gases, water use, and the impacts of extraction and transportation of coal.**Proposed Emission Limits**

The majority of the proposed emissions associated with the plant involve the coal mill drying process, the gasifier flares associated with start-up and the actual combustion turbine and duct burner once the synthetic gas produced is burned. In addition, a significant amount of emissions – about 200 tons per year of particulate matter – is associated with the urea granulation stack. Thus, while much cleaner than a traditional coal plant, the combustion turbine process would produce an estimated 165 tons per year of nitrogen oxides, 78 tons of sulfur dioxide, 118 tons of particulate matter and 136 tons of ammonia.

In terms of its emission rates, the proposed emissions are roughly one-fourth of those proposed by recently permitted coal plants like Oak Grove in the Waco area. The applicant is proposing using selective catalytic reduction (SCR) technology to reduce nitrogen oxide formation. Each coal mill dryer vent – there are two “trains” – would produce another 16 tons per year of NOx, and another 21 tons approximately of particulate matter each among other pollutants. Thus, while producing less emissions than other proposed plants utilizing coal, the plant would be considered a major air pollution source due to particulate matter, nitrogen oxides and carbon monoxide among other pollutants. To their credit, the application does appear to apply “Best Available Control Technology” comparing the proposed Summit plant to other plants using natural gas or syngas as opposed to those plants utilizing coal.

TCEQ: Still No authority over CO2 emissions?

While the proposed plant is being designed as a way to produce electricity and urea, it is also being specifically designed to show that a coal plant can capture carbon dioxide emissions commercially, assuming that waste stream can be sold for enhanced oil recovery. Nonetheless, TCEQ has indicated in previous applications that it lacks the authority to put specific emission controls on CO2 emissions, citing the failure thus far of the Environmental Protection Agency to actually propose CO2 emission limits. The EPA has, on the other hand, proposed a “tailing rule” and issued an “endangerment” finding that could eventually lead to such industry-wide controls.

Thus, the current application, while addressing the plant design and its carbon dioxide capture system, does not propose a specific carbon dioxide emission limit, or an enforceable document related to the amount of carbon dioxide capture, though stating that more than 90 percent would be captured. The majority of the CO2 is captured after the coal is gasified during the acid gas removal, and only relatively minor amounts of CO2 are released during the actual combustion of the syngas.

The fact that TCEQ has thus far failed to recognize the need to require information about global warming gas emissions and consequently applicants have similarly failed to submit information is a major concern for the Sierra Club. A promise to capture CO2 is not the same as an enforceable permit limit.

State and Federal Incentives

According to its proponents, the Summit plant is being specifically designed to prove that IGCC and carbon capture can work on a commercial scale. At the same time, the plant is also being designed to take advantage of a series of federal and state incentives approved to provide incentives for coal plants using cleaner technology. First, Summit Power was instrumental in passing HB 469 by Representative Phil King and Senator Seliger. Under the bill, up to three coal plants that meet certain emission limits and capture the majority of their carbon dioxide emissions could qualify for business franchise tax breaks of up to 10 percent – or up to \$100 million -- of the cost of the project among other incentives. In addition, U.S. Secretary of Energy Stephen Chu announced a \$350 million award to Summit Power toward the completion and the commencement of the Texas site. Finally, Summit Power is also seeking access to the transmission lines being built to serve the development of wind power in West Texas, an issue which may well take both PUC and legislative resolution.

Anna Marie Wood
Office of Air Quality Planning & Standards
U.S. Environmental Protection Agency
AQPD (C504-01)
109 T.W. Alexander Drive
Research Triangle Park, NC 27711
Phone: (919) 541- 5504
Fax: (919) 541- 4028

From: Gina McCarthy/DC/USEPA/US
To: Anna Wood/DC/USEPA/US@EPA
Cc: Janet McCabe/DC/USEPA/US@EPA
Date: 10/25/2010 07:49 PM
Subject: Re: Draft Permit for Summit Power

Anna - Al and I spoke about this facility last week and apparently there seems to be a great deal of interest in moving ahead with this permit since it is a large scale CCS unit. But, people are a bit anxious that the permit might be appealed and the delay will bring them beyond Jan 2. Do you guys have any idea if there is NGO opposition? Do you know where Sierra Club is?

From: Layla Mansuri/R6/USEPA/US
To: Gina McCarthy/DC/USEPA/US@EPA, Janet McCabe/DC/USEPA/US@EPA
Cc: Al Armendariz/R6/USEPA/US@EPA, Amit Srivastava/DC/USEPA/US@EPA
Date: 10/22/2010 08:07 PM
Subject: Draft Permit for Summit Power

Gina, Janet:

Attached is the draft permit that TCEQ prepared for the IGCC plant with CCS that Al discussed with you today.

The document below includes

- notice information, pdf pages 1-4,
- the draft permit, pdf pp. 5-36
- summary of the TCEQ's technical review called a "preliminary determination summary" is at the back, pp.37-50.

Thanks,
Layla

Layla Mansuri
Associate Regional Administrator
US EPA Region 6
214-665-3100 (direct)

Help eliminate environmental violations - report tips and complaints at:

<http://www.epa.gov/compliance/complaints/index.html>

[attachment "Summit Public Notice and Draft Permit.pdf" deleted by Rob Brenner/DC/USEPA/US]