

Holtom, Jonathan

From: Vielhauer, Trina
Sent: Thursday, October 21, 2004 12:11 PM
To: Holtom, Jonathan
Subject: FW: list for SNCR

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

From: Koerner, Jeff
Sent: Tuesday, October 05, 2004 1:48 PM
To: Holtom, Jonathan; Vielhauer, Trina
Subject: RE: list for SNCR

For an SNCR system, I think we would want:

- The designed NOx emission rate to be met after control. 0.78 lb/MMBtu
The designed NOx reduction efficiency (%) at the maximum uncontrolled NOx emission rate. 25%; 20% guaranteed.
A description of the SNCR system components (tanks, pumps, mixers, injectors, individual injector levels, control system, monitored parameters, etc.) with a schematic or process flow diagram.
A description of how the system works to reduce NOx emissions over a variety of load ranges.
The furnace temperature operating range. 1600 - 2200 F
The minimum operating temperature before placing the SNCR system in service.
Anhydrous or aqueous ammonia? aqueous
The expected operating range for the ammonia injection rate. 1600-2200 F, convective sections of boiler
The designed ammonia slip rate. 5 ppmvd @ 3% O2
A requirement for NOx CEMS monitoring. Rad. Rain Requirement
A description of how the control system adjusts the ammonia injection points and rates based on different boiler loads. For example, the SNCR system may consist of three levels of 9 injectors per level. At 70% load, perhaps only levels 1 and 3 are in operation at a given ammonia injection rate to provide the necessary control.

As for the permit, we typically include items such as: a description of the system and components, the expected design control efficiency, the NOx emission standard (with appropriate averaging period), an ammonia slip standard, a requirement that the SNCR be properly functioning when the minimum operating temperature is met, requirements for a NOx CEMS, ammonia slip monitoring, a provision for tracking an appropriate ammonia injection rate vs. load should the NOx monitor go down, and record keeping/reporting. need desc. for ammonia system & feedback loop.

Jeff Koerner, BAR - Air Permitting South
Florida Department of Environmental Protection
850/921-9536

Cooling Tower
Description in Regulated unit Section
i.e. Boiler w/ cooling tower designed
to meet ... specs.
0.005% dust etc.

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

From: Holtom, Jonathan
Sent: Tuesday, October 05, 2004 11:54 AM
To: Vielhauer, Trina
Cc: Koerner, Jeff
Subject: RE: list for SNCR

Dwain did not supply any information regarding the make, model, etc. It may be something they are fabricating themselves. I have never processed an AC for control devices, so I'm not sure what all we typically require. I'll check with Jeff to see what all he required for the SCR on unit 7 and let you know.

-Jonathan

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

From: Vielhauer, Trina
Sent: Tuesday, October 05, 2004 11:48 AM
To: Holtom, Jonathan
Subject: RE: list for SNCR

Do we have the name of the vendor/mfgr for the SNCR? I'm trying to give Mike an idea of the information that we would typically include in a permit [or that they'd give us in their application] that we currently do not have. I would envision Mike sending Dwain an email indicating these items [the list that we provide to Mike] are still needed for the SNCR project and, probably, giving them a choice of doing a TV revision or an AC. I emphasized that the current draft TV didn't have enough details in it to suffice for the long run.

Does that help?

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

From: Holtom, Jonathan
Sent: Tuesday, October 05, 2004 11:41 AM
To: Vielhauer, Trina
Subject: RE: list for SNCR

Trina,

I included the NO_x agreement in the Crist permit, along with the conditions from the AC that referenced it. The two main conditions are shown below:

{Permitting Note: To achieve the plant-wide NO_x standard for the Crist Plant, Gulf Power Company will take the following additional actions.}

E.5. Unit Retirements. The Agreement requires the retirement of Unit -001 within 120 days of receiving a final order from the Public Service Commission that authorizes the recovery of costs associated with the pollution control equipment incurred pursuant to the Agreement through the Environmental Cost Recovery Clause. **(Unit -001 was retired on March 31, 2003.)** A final order is one that is no longer subject to review or appeal by a court of competent jurisdiction. The Agreement also requires the retirement of Units -002 and -003 on or before May 1, 2006.
[Paragraph 4 of the Agreement]

E.6. Additional NO_x Reduction Projects. The Agreement requires Gulf Power Company to conduct a variety of engineering studies to determine the feasibility of NO_x reduction technologies for one or more of the three remaining coal-fired units (Units -004, -005, and -006). The studies and related unit-specific demonstration projects may include (but are not limited to) SCR, selective non-catalytic reduction (SNCR) technology, over-fired air (OFA) technology, natural gas re-burn technology, selective use of biomass fuel, etc. The studies must be complete by May 1, 2005. Before implementing any NO_x reduction technology or combination of technologies, Gulf Power Company must obtain written concurrence from the Department that the use thereof is reasonable and necessary to achieve the overall plant-wide NO_x emission standard. If a NO_x reduction technology or a combination of technologies other than an SCR project for Unit 6 is identified as appropriate, Gulf Power Company will implement the technology or combination of technologies on one or more of the three remaining coal-fired units by May 1, 2006. If an SCR project for Unit -006 is identified as the appropriate NO_x reduction technology, Gulf Power Company will implement, begin and continue operating the SCR system by December 31, 2007.
[Paragraph 2 of the Agreement]}

There is not any specific requirement in the Title V Draft permit for what action they will take, it