

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

NOV 18 2013

Mr. Jeff Pippin  
Senior Asset Manager, Production  
Golden Spread Electric Cooperative, Inc.  
P.O. Box 9898  
Amarillo, TX 79105-5898

RE: Application Completeness Determination for Golden Spread Electric Cooperative, Inc.  
Greenhouse Gas Prevention of Significant Deterioration Permit  
Antelope Station, Abernathy, Hale County, Texas

Dear Mr. Pippin:

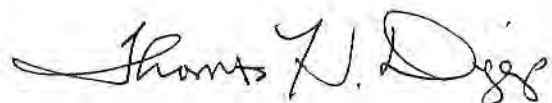
The EPA has reviewed your Greenhouse Gas (GHG) Prevention of Significant Deterioration (PSD) permit application, including supporting documentation, for Golden Spread Electric Cooperative, Inc. that was received by the EPA on February 1<sup>st</sup>, 2013, and updates on July 29<sup>th</sup>, 2013 and determined that your application is incomplete at this time. A list of the information needed from you so that the EPA can continue its completeness review is enclosed (see Enclosure). Please notify us if a complete response is not possible by December 5<sup>th</sup>, 2013.

The requested information is necessary for EPA to develop a Statement of Basis and Rationale for the terms and conditions for any proposed permit. As we develop our preliminary determination, it may be necessary for EPA to request additional clarifying or supporting information. If the supporting information substantially changes the original scope of the permit application, an amendment or new application may be required.

The EPA may not issue a final permit without determining that 1) there will be no effects on threatened or endangered species or their designated critical habitat, or 2) until it has completed consultation under Section 7(a)(2) of the Endangered Species Act (16 USC § 1536). In addition, the EPA must undergo consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA) (16 USC § 470f). As a reminder, NHPA implementing regulations require that EPA provide information to the public with an opportunity for participation in the Section 106 process. 36 CFR § 800.2(d). If you have not already submitted the Biological Assessment and Cultural Resources Reports that you have agreed to prepare for EPA, we look forward to receiving these reports and continuing to work with you to comply with these statutes.

If you have any questions regarding the review of your permit application, please contact Melanie Magee of my staff at (214) 665-7161 or [magee.melanie@epa.gov](mailto:magee.melanie@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Thomas H. Diggs". The signature is written in a cursive style with a large, sweeping initial "T".

Thomas H. Diggs  
Associate Director for Air

Enclosure

## Enclosure

### EPA Completeness Comments

#### Golden Spread Electric Cooperative, Inc. – Antelope Station, Abernathy, Hale County, Texas Application for Greenhouse Gas Prevention of Significant Deterioration Permit

1. Please provide your engineering calculations for the proposed BACT output based limits contained in Table 7 of the permit application and your rationale used to derive the limit. Include any supplemental technical data to support the basis and rationale for the values calculated (i.e. heat rate, fuel composition, operating hours, etc.).
2. The application indicates a proposal for 635 startup and 635 shutdown events for each turbine. Please provide supplemental data to support the rationale for this number of proposed startups and shutdowns. The discussion should include a detailed explanation of the power plant's anticipated operating mode that justifies the proposed startup and shutdown events used to calculate the emission limits.
3. Please provide supplemental benchmark data that compares the energy efficiency of the selected GE 7F 5-Series gas-fired combustion turbine to similar or existing sources. Were other units considered for the proposed project from an energy efficiency/emissions perspective? Please supplement the current BACT analysis to include the energy/emissions evaluation performed to determine why this turbine was proposed for this project. Please include comparative design data that includes heat load and efficiency data of the other units that were considered in addition to the one that was selected. (This information can be graphically represented). For example, the permit application notes the existing plant is made up of 18 quick start engines. Was a technical assessment performed to use additional quick start engines for this project and/or different design configurations of turbines and engines to provide the most efficient operation for the proposed project?
4. Please provide your preferred ongoing compliance monitoring methods for all GHG emission units. Please let us know whether you are proposing to install CEMs due to other non-GHG monitoring requirements and whether that would include continuous CO2 monitoring.
5. Are the proposed BACT limits applicable at all times, including startup and shutdown? Please supplement the application by indicating whether your proposed BACT includes startup and shutdown emissions, or provide supplemental information that details why a different BACT limit is needed during startup and shutdown along with a proposed BACT analysis for such startup/shutdown emissions.
6. BACT is a case-by-case determination. Please provide site-specific facility data to evaluate and eliminate carbon capture sequestration (CCS) from consideration as an add-on control for

BACT. The suggested data that would be helpful includes detailed information on the quantity and concentration of CO<sub>2</sub> that is in the flue gas stream and the necessary equipment for capture, transportation, and storage. In addition, the capital cost of construction, annual operation and maintenance costs, for a CCS system would be helpful as well. Please discuss in detail any site specific safety or environmental impacts associated with such a CCS system. Also, please provide any additional technical and economic details for this project and its potential for installing a CCS system for recovering CO<sub>2</sub> for enhanced oil recovery (EOR) and non-EOR geologic sequestration.

7. Please provide supplemental data that discusses the rationale for the addition of the natural gas heater to the proposed design.
8. Table 7 states that equipment will be operated and maintained according to manufacturer recommendations. Please describe in more detail specific operation and maintenance procedures your facility will perform, how often, and how record keeping will be done.
9. Golden Spread proposes to use periodic AVO monitoring. Please provide supplemental data that discusses the details of what this program will involve. What is the proposed compliance strategy including recordkeeping, schedule, and the protocol for equipment repairs? Is there a TCEQ LDAR method that would be preferred to use? Please provide supplemental data that includes the basis for utilizing this preferred method versus other potential methods.