UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

April 27, 2011

Mark L. McKoy
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
P.O. Box 880
Morgantown, WV 26507-0880

Dear Mr. McKoy:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Draft Environmental Impact Statement (DEIS) prepared by the U.S. Department of Energy for the Texas Clean Energy Project (TCEP), Ector County, Texas. Summit Texas Clean Energy, LLC (Summit) proposes to design and build an advanced commercial integrated gasification combined-cycle (IGCC) coal-fired power plant that would capture approximately 90 percent of the carbon dioxide (CO_2) in its syngas.

EPA rates the DEIS as "**EC-2**" i.e., EPA has "Environmental Concerns and Requests Additional Information in the Final EIS (FEIS)". Detailed comments are enclosed with this letter which more clearly identify our concerns and the informational needs requested for incorporation into the FEIS.

EPA appreciates the opportunity to review the DEIS. Please send our office two copies of the FEIS when it is sent to the Office of Federal Activities, EPA (Mail Code 2252A), Ariel Rios Federal Building, 1200 Pennsylvania Ave, N.W., Washington, D.C. 20004. Our classification will be published on the EPA website, www.epa.gov, according to our responsibility under Section 309 of the CAA to inform the public of our views on the proposed Federal action. If you have any questions or concerns, please contact John MacFarlane of my staff at macfarlane.john@epa.gov or 214-665-7491 for assistance.

Sincerely,

Rhonda Smith
Chief, Office of Planning
and Coordination

Enclosure

DETAILED COMMENTS ON THE
U.S. DEPARTMENT OF ENERGY
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE
TEXAS CLEAN ENERGY PROJECT
ECTOR COUNTY, TEXAS

BACKGROUND: Summit Texas Clean Energy, LLC (Summit) proposes to design and build an advanced commercial integrated gasification combined-cycle (IGCC) coal-fired power plant that would capture approximately 90 percent of the carbon dioxide (CO_2) in its syngas. The U.S. Department of Energy (DOE) would provide at least $450 million in cost shared Clean Coal Power Initiative funding to Summit to support construction and operation of the Texas Clean Energy Project (TCEP). The DOE has prepared a Draft Environmental Impact Statement (DEIS) to satisfy the Federal requirements established by the National Environmental Policy Act (NEPA).

COMMENTS: The following are offered for your agency's consideration in completing the Final EIS:

Alternatives Analysis

Section 2.3.2 Alternative Sites states that other sites were considered, but Summit "ultimately selected the Odessa site primarily because of its proximity to an existing CO_2 pipeline and multiple EOR sites." The Council on Environmental Quality's 40 Code of Federal Regulations (CFR) Part 1502.14 (a) of its regulations for implementing NEPA states agencies shall "[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." This section does not evaluate all reasonable alternatives nor does it discuss those alternatives eliminated from further study. In the very least, a brief discussion is necessary to explain why other potential site locations (Oak Grove, Corpus Christi, Big Brown, and Jewett) were eliminated from further study.

Several alternatives are available for the various linear facilities that are required for the operation of the TCEP. Alternatives for process waterlines (WL) and transmission lines (TL) are analyzed for impacts, but no screening analysis was performed to determine a preferred alternative. As stated in CEQ CFR Part 1502.14, the alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.

EPA is concerned with the predicted volume of process water required for the TCEP. Table 2.2 states the annual peak water usage could be up to 5.5 million gallons per day. EPA is concerned with the decline of area groundwater supplies primarily from agricultural and municipal use. Process water alternatives WL2, WL3, and WL4 would utilize groundwater. EPA recommends the implementation of WL1 which would utilize municipal wastewater effluent for use as process water. WL1 would be the environmentally preferable alternative. The DEIS also considers alternatives to other processes and infrastructure, such as brine water disposal and cooling towers. EPA recommends the use of the Zero Liquid Discharge System (ZLDS) as the process for disposing of and/or recycling brine water and recommends the use of dry cooling towers for the heat removal process.

Emissions, Discharges, and Wastes

A 2002 study of IGCC coal-fired power plants states that wastewater effluent could contain sulfide, chloride, ammonium, and cyanide.[1] EPA recommends that additional information be included as to the possible contaminants contained in process water effluents and whether the ZLDS would be able to process those contaminates and how the contaminates would be disposed.

[1] Jay A. Ratafia-Brown, Lynn M. Manfredo, Jeff W. Hoffmann, and Massood Ramezan. *An Environmental Assessment of IGCC Power Systems*. Science Applications International Corporation.

Air Quality

EPA finds the estimated air emissions from the proposed project to be well illustrated and quantified. EPA Region 6 air permitting staff worked closely with Summit and the Texas Commission on Environmental Quality during development of the Prevention of Significant Deterioration (PSD) permit for the TCEP, and provided agency comment on the permit. EPA does not have significant air quality concerns with the TCEP at this time.

Any demolition, construction, rehabilitation, repair, dredging, or filling activities have the potential to emit air pollutants and best management practices are recommended to be implemented to minimize the impact of any air pollutants. EPA encourages the use of clean, lower-emissions equipment and technologies to reduce pollution. Furthermore, construction and waste disposal activities should be conducted in accordance with applicable local, state and federal statutes and regulations

Surface Water Resources

EPA agrees with the DEIS summarization that the "[t]he absence of surface water resources in or adjacent to the polygen plant site eliminates the possibility of direct impacts and reduces the risk of indirect impacts. Indirect impacts to surface waters in the ROI during construction or operation of the polygen plant site would be unlikely". *Section 3.7.5.1 Wetlands, Waterbodies, Waterways, and Water Quality* states that no delineation of wetland resources has been conducted. EPA recommends DOE conduct wetland and waterways delineations for any waters identified within the right of way of each of the linear facilities options. Any impacts to jurisdictional waters of the U.S. shall be permitted and mitigated for in accordance with U.S. Army Corps of Engineers (USACE) regulations and/or guidelines. This section should include a discussion of the adverse environmental impacts of considerably dewatering Monahans Draw and any associated wetlands if WL1 is implemented.

Biological Resources

EPA recommends that *Section 3.8.5.1 Terrestrial Species* provide additional information detailing the methods that would be used to prevent and/or minimize the spread of noxious non-native vegetation during and after construction of both the polygen plant and associated linear facilities.

Environmental Justice

The census tracts in the region of influence do have more than 50 percent minority population, compared with the Texas average of 32 percent, and the census tracts also have 50 percent low-income population. However, the population is very sparse in Ector County, a large 902 square-mile county, with a total population of 128,000 residents. The area closest to the proposed plant, Penwell, Texas, has a population of only twelve. The residences are located between 0.6 mile and one mile from the plant site. Extensive measures and the latest technology will be used to prevent accidents and estimates are that in the unlikely event of accidents, workers would be the most likely to be affected. The numerous economic benefits through additional taxes received from the plant, and increased employment opportunities will be shared by all the residents of this region. Some benefits of this project will be shared beyond the region, and will include the U.S. and even the world, because it will be a prototype for similar plants that will result in lowered greenhouse gases, as well as other benefits.

Tribal Issues

Nomadic Tribes, such as the Apache, Comanche and Kiowa, frequented the area more than 150 years ago, but it appears few or no Indians live in the area now. The area appears to have no traditional, cultural or historic significance for Tribes. There are no known tribal artifacts, burial grounds or ruins in the project area. The normal protocols were followed to contact Tribes for National Historic Preservation Act issues. Eight Tribes in Oklahoma, Texas, and New Mexico were consulted regarding this project, and only the Ysleta del Sur Pueblo Tribe responded, requesting notification in the event that bones or relics should be found.

Cumulative Impacts

Cumulative impacts are those impacts "on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or persons undertake such actions." EPA suggests that additional past, present, and reasonably foreseeable future projects be analyzed. For example, a search of the Texas Department of Transportation database revealed that there are several highway construction projects within the region of influence.

Agency Coordination

Chapter 8 lists the agencies and tribes that were contacted, but Appendix A only includes two agency coordination and/or consultation letters. The appendix should contain all agency coordination and/or consultation letters.