



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6

**1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733**

November 2, 2012

Mark Lusk
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
M/S 107, P.O. Box 880
Morgantown, WV 26507-0880

Dear Mr. Lusk,

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 W.A. Parish Post-Combustion CO₂ Capture and Sequestration Project.

EPA rates the DEIS as LO - "Lack of Objections". We are enclosing technical comments that provide recommendations for further clarification and additional discussion in the Final EIS (FEIS). The EPA's Rating System Criteria can be found here: <http://www.epa.gov/oecaerth/nepa/comments/ratings.html>. Responses to comments should be placed in a dedicated section of the FEIS and should include the specific location where the revision, if any, was made. If no revision was made, a clear explanation should be included.

EPA appreciates the opportunity to review the DEIS. 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. Please send our office one copy of the FEIS and an internet link. On October 1, 2012, EPA began requiring mandatory EIS filing on the *e-NEPA Electronic Filing* system at <http://www.epa.gov/compliance/nepa/submiteis/index.html>. 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,

A handwritten signature in blue ink, appearing to read "Rhonda Smith", with a long horizontal flourish extending to the right.

Rhonda Smith
Chief, Office of Planning
and Coordination

Enclosure

**DETAILED COMMENTS ON THE
U.S. DEPARTMENT OF ENERGY'S
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE
W.A. PARISH POST-COMBUSTION CO₂ CAPTURE AND
SEQUESTRATION PROJECT
FORT BEND COUNTY, TEXAS**

BACKGROUND: NRG Energy, Inc's (NRG) proposed W.A. Parish Post-Combustion CO₂ Capture and Sequestration (PCCS) Project would construct a carbon dioxide (CO₂) capture facility at its 4,880-acre W.A. Parish Plant (Plant) in rural Fort Bend County. The capture facility would use an advanced amine-based CO₂ absorption technology to capture at least 90 percent of the CO₂ from a 250-megawatt equivalent portion of the flue gas exhaust from Unit 8 at the Plant. The Department of Energy (DOE) will provide \$167 million in cost-shared financial assistance to NRG under the Clean Coal Power Initiative Program to support construction and operation of NRG's PCCS Project.

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

2.3.2.4.4.4 Air Emissions, page 2-22

This and other sections in the DEIS explains that NRG is required, as part of the Nonattainment New Source Review permitting process, to provide offsets to reduce the total net project increases of ozone precursors (NO_x and Volatile Organic Compounds [VOC]) within the Houston Galveston Brazoria (HGB) Metropolitan Statistical Area. In a September 27, 2012 letter, NRG contacted EPA Region 6 to determine available options for offsetting the project's increased VOC emissions, and specifically requested to offset the project's proposed VOC emission increases in the HGB ozone nonattainment area with banked NO_x discrete emission reduction credits (DERCs) generated in the HGB area.

In an October 12, 2012 letter to NRG, EPA Region 6 provided concurrence on the use of HGB NO_x DERCs to offset VOC emission increases at a 1:1 trading ratio in this specific situation. This approach will also require approval from the Texas Commission on Environmental Quality.

3.7.3.1 Surface Water, Direct and Indirect Impacts, Pipeline Corridor, page 3.7-23

This section states "As the pipeline is currently designed, the three major rivers (i.e., the San Bernard River, the Colorado River, and the Lavaca River) and three other waterbodies (i.e., the man-made pond by FM 1994, Big Creek and Jones Creek) would be crossed by horizontal directional drilling (HDD). NRG anticipates that open-cut methods would be used to cross the remaining smaller waterbodies and wetland areas."

Recommendation:

- EPA recommends that the applicant use HDD to cross under all perennial waterways, all waterways designated as Ecologically Significant Stream Segments, and any other waterway with unique characteristics.
- EPA recommends the applicant verify the extent of Traditional Navigable Waters in the study area.

3.8.3.1.2 Wetlands and Floodplains, Construction Impacts, Pipeline Corridor, Wetlands, page 3.8-14

Table 3.8-5 lists the estimated temporary and permanent impacts to jurisdictional wetlands from the proposed project. The estimated permanent impacts to wetlands are listed at 7.4 acres.

- The applicant should provide appropriate compensatory mitigation for permanent impacts to 7.4 acres of wetlands.
- The applicant should use approved wetland functional assessment models to determine the wetland types that would be impacted and the extent of functional loss and appropriate compensatory mitigation that would be required to fully restore the unavoidable adverse impacts to waters of the U.S., including special aquatic sites as identified in 40 CFR Part 230 Section 404(b)(1).

3.9.2.1 Terrestrial Vegetation and Habitats

This section states “The U.S. National Vegetation Classification System and land cover data (NatureServe 2012) were used to characterize the terrestrial vegetation communities and habitats within the region of influence (ROI).” While that information is worthwhile, additional evaluation is necessary to identify rare plant communities within the study area.

Recommendation:

- The applicant should utilize the Texas Parks and Wildlife Department’s (TPWD) Rare Plant Communities to identify any State or Global rare plant communities.
- If the proposed project would impact any State or Global rare plant communities, EPA recommends contacting TPWD to discuss appropriate mitigation measures.

3.19 Environmental Justice

The method used to determine Environmental Justice applicability and impact appears to be flawed and/or misleading. For the purpose of Environmental Justice, Hispanic or Latino is to be considered in the determination of the minority populations within the region of influence (ROI) and the environmental impact.

Recommendation:

- EPA recommends that DOE properly address and/or reassess the environmental justice impact of the proposed project on the affected populations. We recommend utilizing the Council on Environmental Quality's (CEQ) "Environmental Justice Guidance under NEPA"¹ and Executive Order (EO) 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations² to evaluate EJ impacts.

4.0 Mitigation Measures, page 4-1

Table 4-1, Summary of Mitigation Measures, contains a list of practices NRG proposes to implement during project construction to minimize/mitigate potential adverse impacts to air quality and greenhouse gas emissions. In addition to the measures included in Table 4-1, as well as all applicable local, state, or federal requirements, EPA recommends that the following mitigation measures be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of NO_x, CO, PM, SO₂, and other pollutants from construction-related activities:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate at active and inactive sites during workdays, weekends, holidays, and windy conditions;
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions; and
- Prevent spillage when hauling material and operating non-earthmoving equipment and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Plan construction scheduling to minimize vehicle trips;
- Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections;
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed;
- If practicable, utilize new, clean equipment meeting the most stringent of applicable Federal or State Standards. In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible;
- Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using EPA-verified particulate traps,

¹ http://www.epa.gov/environmentaljustice/resources/policy/ej_guidance_nepa_ceq1297.pdf

² <http://www.epa.gov/lawsregs/laws/eo12898.html>

oxidation catalysts and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site; and

- Consider alternative fuels and energy sources such as natural gas and electricity (plug-in or battery).

Administrative controls:

- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking;
- Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips; and
- Identify sensitive receptors in the project area, such as children, elderly, and infirmed, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).