



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
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NEW YORK, NY 10007-1866

JAN 30 2012

Colonel Alfred A. Pantano, Jr.
District Commander
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, Florida 32232-0019

RE: Department of the Army Environmental Assessment and Statement of Finding for Permit Application SAJ-2010-02881

Dear Colonel Pantano:

Consistent with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Army Corps of Engineers' (Corps) draft Environmental Assessment (EA) and Statement of Finding for Permit Application SAJ-2010-02881. The purpose of the draft EA is to address the proposed construction and installation of a 24-inch diameter steel natural gas (NG) pipeline that is approximately 92 miles long with a construction right-of-way of 100 feet. The proposed pipeline would traverse the island of Puerto Rico from the EcoElectrica Liquid Natural Gas Terminal in the municipality of Penuelas, to the Cambalache Thermoelectric Power Plant in the municipality of Arecibo, then travel east to the Palo Seco power plant facility in the municipalities of Toa Baja and San Juan.

Alternatives Analysis

The purpose of the pipeline is to reduce dependency on oil by supplying natural gas to three existing power plants operated by the Puerto Rico Power Authority (PREPA) in the northern regions of Puerto Rico. EPA in general supports robust energy efficiency programs, the development of clean renewable energy generation, and Puerto Rico's transition away from the use of oil in power plants. However, EPA is concerned that other alternatives for providing natural gas to Penuelas, Arecibo, and Toa Baja were not adequately considered and evaluated.

Mooring Platform Alternative

EPA noted in the Alternatives Analysis section, there is a brief mention of the Excelebrate, Inc. project to establish a mooring platform approximately four miles off the coast of the Aguirre power plant. The EA states that a vessel providing storage and re-gasification would be continuously moored at the platform and LNG supply vessels would periodically moor and transfer the product to the vessel. This section concludes with the statement: "environmental and other studies are now commencing." It is our understanding that this project is moving forward and thus is a possible alternative for providing natural gas to Puerto Rico. Excelebrate's project is categorized in the EA as an alternative under the term "others."

Page 45 of the EA states that projects under the term “others” do not meet Level 1 and were not advanced to Level 2 because “these deliver natural gas to the south coast plants, not the ones on the north coast.” The EA fails to provide an explanation as to why the approach being used by Excelerate at the Aguirre plant cannot be applied to the north coast power plants. Specifically, EPA would like to know how Excelerate will minimize impacts to aquatic resources and why similar techniques could not be applied to the northern power plants. Additionally, EPA would like more information regarding how the Aguirre project is being completed in a cost effective manner, whereas the offshore buoy system is said in the EA to be “much more costly than any individual terrestrial alternative.”

Proposed Connections

EPA has reservations regarding the three proposed connections, referred to as “T” pipe fittings, which are to serve various industrial areas with natural gas. EPA acknowledges the cost saving benefits of installing the “T” fittings during construction of the pipeline; however, the indirect and cumulative impacts of providing the “T” fittings must be discussed, such as the array of possible future impacts the construction of additional pipelines could have. There needs to be, at a minimum, a qualitative discussion of what resources are present and impacts may occur from projects induced by the more-readily available energy from the “T” fittings.

Right of Way and Fragmentation

EPA is concerned about the long-term impacts of habitat fragmentation that will result from the 50- foot corridor which will be maintained free of deep-rooted vegetation. The EA states that the forested areas being cleared are a minor fraction of the whole extent of the forested area. EPA believes that such statements fail to acknowledge the extent of impacts that fragmentation can have on an ecosystem. EPA is concerned that the maintenance of the right of way will fracture habitat and impact an area much greater than the foot print of the cleared acreage. The methods used to maintain the area of shallow-rooted vegetation will have continuous impacts and the cleared area will likely attract hikers, horseback riders, all terrain vehicles, etc. The proposed barriers at road crossings could introduce additional impacts on species that inhabit the area. Most of these issues warrant a more in-depth evaluation and discussion than that which is provided.

Page 70 states, “the permanently maintained corridor will not be forested, but will have a herbaceous cover, still providing ecological function.” Clearly, that function will be vastly different from the original function. The dramatic change in ecosystem function, coupled with maintenance methods which will be used to maintain the area (whether mechanical, or herbicidal) increases the likelihood that the “ecological function” will be utilized by non-native and invasive species which will compound the ecological disruption caused by the deforestation. The “ecological function” provided by the deforested and shallow-rooted right of way referenced in the EA should not be considered a benefit as is implied.

Wetlands

The proposed project would result in an estimated permanent impact to 1.68 acres of wetlands for the construction of the main line valves along the pipeline route. In addition to the permanent impacts, PREPA has estimated that 289.53 acres of wetlands and open water would be temporarily impacted by construction. The temporary impact estimates are based on a 60-foot right of way, and are mostly related to the material that is placed on the side of the construction trench before being reused to backfill the trench at those locations where the pipeline is to be buried. EPA agrees with the Corps of Engineers in their assessment that the impact estimates from such activity are assumed with fill covering the entire 60-foot right-of-way, and that the final impact area may be less. However, since the construction crews would move through the construction right of way, cutting vegetation and driving vehicles and other machinery required for construction, EPA believes that the estimated temporary impacts may in fact be somewhat larger. This assertion takes into account past experiences with construction projects and contractors in Puerto Rico who have not observed strict area boundaries when traversing wetlands.

EPA agrees with the method used to assess the project impacts, defining such impacts in terms of "units" based on functional assessments. However, EPA is still concerned about the applicant's determination that the temporary impact areas can be fully restored to their original condition. EPA disagrees with this statement because of the significant changes in vegetation that would occur during construction and eventual maintenance, the temporal loss of values and functions of the affected wetlands, and the methodology chosen to compensate for the temporary impacts. According to PREPA, temporary impact areas would be left alone to naturally revegetate after construction has been completed. Such areas would be reassessed six months after construction to determine whether they have naturally reverted to the conditions of the surrounding areas. If natural restoration has not succeeded, PREPA would perform one more revegetation attempt. After two tries, the areas that have not reverted to their original condition would be reassessed in order to determine if PREPA has incurred shortfalls on the impact units, and additional compensatory mitigation would be required. While natural revegetation may be possible in marsh areas, EPA remains concerned regarding areas where woody vegetation may need to be removed. According to PREPA, trees would not be allowed within the 60-foot right of way due to safety considerations. Therefore, given the length of the pipeline, this will result in significant impacts to wooded areas. While PREPA has expressed its willingness to avoid wooded areas through alignment changes and/or the use of directional drilling, PREPA should also consider including the planting of appropriate trees in areas adjacent to the alignment in order to offset the loss of woody vegetation. In addition, EPA remains concerned that the proposed restoration of wetlands along the pipeline route may result in impacts from temporal loss. EPA believes that given the historical difficulties that applicants have encountered with wetlands restoration projects in Puerto Rico, it may be overly optimistic for PREPA to expect that most of the pipeline route will revert to its original condition once construction is complete. EPA recommends a more comprehensive restoration strategy, including the planting of appropriate species immediately after construction rather than waiting a year to determine if additional compensatory mitigation is required.

PREPA submitted draft mitigation proposals for the permanent impacts to wetlands as part of the Corps of Engineers permit application. The proposal calls for the enhancement of one parcel currently used for hay harvesting along the boundaries of the existing Caño Tiburones Natural Reserve in Arecibo, Puerto Rico. PREPA maintains that the agricultural practices in these lands have been eliminated of the natural mosaic of wetland species in the area, thereby degrading its environmental functions and values. PREPA's plan is to eliminate the agricultural practices at these lands, and to enhance them by grading the soil and planting appropriate species, restoring the area and allowing it to become part of the natural reserve. Upon evaluation of the plan, EPA determined that while the proposed actions were commendable, they would not adequately address the permanent impacts of the project. EPA's assertion was based on the fact that the pipeline project would still result in an unacceptable loss of wetlands, that the pipeline would cross a portion of the mitigation site, possibly resulting in additional wetlands impacts whenever maintenance work was required in the area, and the lack of a baseline analysis of the current conditions of the mitigation parcel. Furthermore, EPA requested that PREPA consider placing the proposed mitigation parcel under a conservation easement in perpetuity once the mitigation was completed, and that given the large scale of the gas pipeline project, as well as its possible long term, a performance bond be required from PREPA to guarantee their commitment to the restoration of areas impacted by the proposed right of way for the project, as well as the success of all mitigation areas. Funding from such a bond could be used to complete mitigation, purchase desirable wetlands for preservation, and other related projects, as appropriate, should the proposed mitigation fail. Furthermore, EPA proposed that the amount of bond be determined based on the gas pipeline's permanent and temporary impacts, and the full cost analysis of the project, in consultation with all Corps of Engineers resource agencies. On January 2012, EPA received a document entitled Final Via Verde Compensatory Mitigation Plan (Mitigation Area II at Caño Tiburones Nature Reserve (CTNR)) from PREPA. This document is currently undergoing review to determine whether the issues raised in our previous communications to the Corps have been addressed. Comments on the document will be forwarded to the Corps under separate cover as soon as its evaluation is completed.

Karst

EPA has major concerns about the use of horizontal directional drilling, particularly in karst terrain areas. As previously stated in our letters to the Corps on December 21, 2010 and April 1, 2011, past directional drilling has resulted in major impacts from mud leaking into the surrounding environment. Due to the nature of karst terrain, EPA is concerned that any spill of drilling mud may contaminate groundwater or reach other aquatic resources which have not been evaluated.

EPA notes the value of having an independent horizontal directional drilling expert monitoring all drilling activities, but continues to recommend that an independent karst geologist/engineer also be employed in a similar capacity. Such an expert would be present in the field during all drilling operations so that work can be stopped if any problems or abnormalities are detected.

Mitigated FONSI

As was addressed in our letter to the Corps dated April 1, 2011, EPA would like to remind the Corps that on January 14, 2011 the Council on Environmental Quality (CEQ) provided guidance for departments and agencies of the Federal government on mitigation and monitoring of activities. As highlighted in this guidance, "Mitigation measures included in the project design are integral components of the proposed action, are implemented with the proposed action, and therefore should be clearly described as part of the proposed action." The guidance further states, "Mitigation commitments needed to lower the level of impacts so that they are not significant should be clearly described in the mitigated FONSI (finding of no significant impact) document and in any other relevant decision documents related to the proposed action." Therefore, the final Corps-issued Environmental Assessment and finding for this project should include all detailed mitigation plans.

Thank you for the opportunity to comment. Should you have any questions concerning this letter, please contact Stephanie Lamster, Environmental Scientist at 212-637-3465.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Grace Musumeci".

Grace Musumeci, Chief
Environmental Review Section