

Mr. Edgar W. García
Regulatory Project Manager
Antilles Regulatory Section
Jacksonville District Corps of Engineers
400 Fernandez Juncos Avenue
San Juan, Puerto Rico 00901-3299

Re: Via Verde Natural Gas Pipeline; SAJ-2010-02881 (IP-EWG)

Dear Mr. García:

This is in further reference to the Via Verde natural gas pipeline project proposed by the Puerto Rico Electric Power Authority (PREPA). After our December 23, 2010 letter, voluminous additional information has been provided by PREPA and its consultants to address the U.S. Environmental Protection Agency's (EPA's) concerns. In addition, the applicant has met with EPA representatives on several occasions to present and/or discuss such additional information, including several chapters of the local Environmental Impact Statement (EIS) for the project. These updated comments on the project are based on a thorough review of the additional information furnished by the applicant.

In our previous letter, EPA objected to the issuance of a Department of the Army permit for the project based on the lack of a detailed alternatives analysis for the project, concerns regarding the use of directional drilling, the lack of suitable compensatory mitigation to address wetlands impacts, and the need to complete a federal Environmental Impact Statement (EIS) for the project. After evaluating the additional information delivered by the applicant, EPA has the following comments:

To address the alternatives analysis issue, PREPA provided information on the alternatives contained in the local EIS prepared for the project. These included the a no action alternative,

the construction of a natural gas import terminal on the north coast of the island, tanker and buoy systems and/or transfer platforms for receipt of natural gas at PREPA's Palo Seco, San Juan and Cambalache plants, gravity based systems, floating storage and re-gasification units, and several terrestrial alignments for a natural gas pipeline system. While this represents a significant milestone in the review of alternatives for the project, the documents provided include an additional option: The use of natural gas at PREPA's existing Costa Sur and Aguirre power generating facilities on the south coast of Puerto Rico, combined with the conversion of the nearby Las Mareas Port facility to receive liquefied natural gas (LNG) as means to achieve significant energy production using an alternative fuel. This project, formerly known as the "*Gasoducto del Sur*", which was previously considered by PREPA as means to address the diversification of the electric power supply methods in Puerto Rico, was briefly mentioned in response to comments from the U.S. Army Corps of Engineers and the Puerto Rico Engineers and Surveyors Association. EPA believes that PREPA's dismissal of this alternative as inconsistent with the current project's overall project purpose (to provide an alternative fuel source to three power generating plants located in the north coast of Puerto Rico), while accurate, does not address the fact that it would provide PREPA with an alternative fuel option for two major generating facilities with lesser environmental impacts. While we must defer to PREPA's expertise on the fact that "*Gasoducto del Sur*" may destabilize the island's electrical system, resulting in frequent collapses of the electric network of Puerto Rico, EPA believes that additional discussion of this alternative is required in order to satisfy the requirements of a comprehensive alternatives analysis for the currently proposed project.

In regards to EPA's concerns regarding the use of directional drilling in wetlands and karst terrain, PREPA provided additional information regarding best management practices, the monitoring to be performed and the presence of specialized personnel during drilling operations to monitor the process and stop work immediately if any escape of bentonite mud into karst formations and/or waters of the United States is suspected. In addition, during a March 2, 2011 meeting at the Corps of Engineers, PREPA's consultants announced that directional drilling operations in karst terrain would be greatly reduced, since the pipeline route would be altered to circumvent haystack hills ("*mogotes*"), light equipment would be used, and a pipeline pull method would be required to further reduce impacts. We commend PREPA on these impact reduction measures, and remain confident that the best management practices, combined with adequate monitoring, should minimize any impacts from directional drilling. Furthermore, EPA urges the Corps of Engineers to consider a special condition to the permit requiring the presence of a trained geologist/engineer with expertise on karst terrain during drilling in order to closely monitor the operations and stop work if any abnormalities are

detected. Another special condition mandating the avoidance of karst formations during pipeline placement should also be considered.

In our previous letter, we commented on the perceived unsuitability of the initially proposed compensation for unavoidable impacts to aquatic resources. Additional information supplied by PREPA to address this issue includes, among others, a commitment to coordinate with the Department of Natural and Environmental Resources (DNER) to develop suitable on-site mitigation in a 3:1 ratio for any unavoidable impacts to aquatic resources. While PREPA has stated that a suitable mitigation plan would be developed in a timely manner, EPA believes that such plan must be reviewed and accepted by the Corps of Engineers' resource agencies before a permit is issued. In addition, questions regarding the concept of "temporary impacts" proposed by PREPA remain. While PREPA expresses that after placing the pipeline, areas would be immediately *brought back to initial conditions so that natural re-colonization by suitable wetlands species begins*, several of the documents indicate a willingness to enhance areas by suppressing invasive and/or nuisance species. These "enhancement" areas need to be identified and quantified. We also think that additional details on the management/maintenance methods to be used need to be clarified. In addition, we believe that the mitigation and/or wetlands enhancement plans should include performance/success rates to evaluate their suitability and long term viability. Furthermore, please be advised 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." Therefore, EPA feels that a more robust description of the mitigation and monitoring plans needs to be developed to ensure that this federal objective is fulfilled. The guidance further states that "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, any Corps-issued Environmental Assessment coupled with a FONSI for this project should include that information. We look forward to receiving and reviewing any mitigation planning documents as they become available.

One additional remaining concern for EPA is the proposed project's right-of-way (ROW). At various times throughout the documents supplied by PREPA, the ROW is described as being 100, 150 or 50 feet wide. While the applicant has since explained the concept of a variable

ROW at the meetings to discuss outstanding project issues, we would appreciate a written, detailed explanation of this concept in order to include it in the project review file. If possible, *PREPA should provide this information on a map, including the location of any staging areas or work platforms needed during construction.* This information would help EPA determine whether there are any other issues that need to be addressed within the ROW in order to provide substantive comments to the Corps and PREPA.

In summary, while PREPA has addressed our major concerns regarding the *Vía Verde* Natural Gas Pipeline project, EPA believes that some additional information is required in order to fully comply with the Clean Water Act, Section 404(b)(1) Guidelines requirements. Specifically, we request additional evaluation regarding the "*Gasoducto del Sur*" alternative, the consideration of special condition to the permit in order to address our concerns regarding the use of directional drilling, additional details regarding the project's compensatory mitigation plan, and a detailed explanation of the project's variable right-of-way, including maps and staging areas. We therefore condition our approval of the proposed permit project to the submittal and positive evaluation of data to alleviate our remaining concerns.

If you have any questions or require additional information on this matter, please contact Ms. Teresita Rodriguez, Chief of the Multimedia Permits and Compliance Branch (MPCB), at 787-977-5864 or Mr. José Soto, of the MPCB, at 787-977-5829.

Sincerely,

Carl-Axel P. Soderberg

Director

CC: USFWS-Cabo Rojo, PR

DNER- San Juan, PR

PRPB- San Juan, PR

PREQB- San Juan, PR