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SITE ASSESSMENT. REMEDIATION &

REVITALIZATION

Mr. Chip Ridgeway Project Manager U.S. Army Corps of Engineers Strom Thurmond Federal Building 1835 Assembly Street, Room 865 B-1 Columbia, South Carolina 29201

April 30, 2015

Mr. Brice McKoy Northwest Regulatory Branch Chief U.S. Army Corps of Engineers Strom Thurmond Federal Building 1835 Assembly Street, Room 865 B-1 Columbia, South Carolina 29201

RE: **USACE Permit - P/N 2011-01356-6NO**

> **SCE&G - Congaree River Site** Columbia, South Carolina

Cofferdam Approach for Modified Removal Action

Dear Sirs:

On behalf of SCANA Services, Inc., this correspondence provides an update on the evaluation of cofferdam approaches for the Modified Removal Action to address the tar-like-material within the Congaree River. We are also requesting a USACE determination on the maximum acceptable change in river level during lower flow conditions to facilitate the completion of our evaluation.

By way of background, the Modified Removal Action area targets approximately 30% of the surface area as addressed in the original, two-phased cofferdam approach. Per direction from SCDHEC, SCANA is focusing on this Modified Removal Area due to the unacceptable project ramifications identified during the initial design/permitting phase.

Our approach to the removal action continues to involve isolation of the work areas so that the removal may be performed in "dry" conditions. This approach is necessitated by the potential presence of historical artifacts and associated unexploded ordnance. We are currently focusing on two primary cofferdam options to isolate work areas within the Modified Removal Action area. Option 1 involves installation of a temporary berm (constructed of materials to be determined) parallel to the shoreline, with cross-berms extending from the shoreline to the temporary berm that are installed and removed as work progresses. Option 2 involves installation of a series of temporary cofferdams (constructed of materials to be determined) that extend from the shoreline and are relocated as work progresses. In general, to safely and effectively execute Option 2, the lateral extent of incursion into the river from the shoreline will be greatly reduced when compared with the first option.

A key factor in the evaluation and subsequent design of the cofferdam approach involves the maximum allowable height increase of water on the western shoreline. In the original cofferdam approach with a berm height of 123.5 feet NGVD29, a no rise certification for the 100-year flood was provided. Based on the smaller footprint, we are confident that the backwater analysis will also support a no rise certification for either option being evaluated for the Modified Removal Action (which is similar in area to the original Phase 1 cofferdam area). In the evaluation of lower flows for the original Phase 1 cofferdam (much less than the 100-year flood level), a maximum change in water elevation of 1.2 feet was estimated compared



with existing conditions at a 123.0 feet water level. As you may recall, more significant water surface changes were associated with the original Phase 2 cofferdam (i.e. 11.3 feet increase).

Because Option 2 is expected to have a lesser footprint and impact on river flow conditions than Option 1, we have conservatively conducted a preliminary assessment of the cofferdam effect on lower flow conditions utilizing Option 1. Preliminary results indicate that the temporary berm parallel to the shoreline, at a berm height of 123.5 feet NGVD29, would increase the water level approximately 0.1 feet on the west bank of the river under the lower flow conditions evaluated. This estimate does not account for the additional rise caused by the cross berms in Option 1. Additional calculations are necessary to evaluate the cross-berm effects. However, prior to engaging in the additional work, we wanted to provide you with the status of our efforts thus far as well as request your determination regarding an acceptable water level increase at the lower flows (all well below the 100-year flood elevation).

The acceptable water level increase likely impacts the actual approach selected and the associated design. For example, the cofferdams being evaluated for the Modified Removal Action could be designed such that the height would not result in a water level change exceeding 1.0 feet. This amount of change does not seem to be significant for flows well below the 100-year flood, and appears to allow for a practical approach that would not necessitate working within very small cells and/or numerous removals/reinstallations based on probable weather forecasts.

Your prompt consideration of this request would be greatly appreciated. If you have any questions or require any additional information, please contact Bob Apple at 919-819-2748 or me at 412-829-9650. Thank you for your continued assistance with this project.

Sincerely,

Apex Companies, LLC

Andrew R. Contrael Senior Project Manager

CC:

L. Berresford - SCDHEC

R Cat

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