



August 16, 2016

Mr. Robert Apple
SCANA Environmental Division
South Carolina Electric and Gas Company
4077 Haywood Road
Mills River NC 28759

**RE: SCE&G Congaree River Sediments, Columbia SC
Removal Action Alternative
File # 52561, VCC# 02-4295-RP**

Dear Mr. Apple,

In light of the 2015 flooding event and its impacts to the Congaree River, as well as the constraints with excavation of sediment from the Congaree River, the Department of Health and Environmental Control (Department) has reevaluated the alternatives from the 2013 Engineering Evaluation / Cost Analysis (EE/CA) for cleanup of the tar like material (TLM) in the Congaree River. Based on the current conditions, and the ability to obtain proper permits and safely conduct a removal action without adverse impacts to human health and the environment, the Department is requesting SCE&G pursue EE/CA Alternative 3 – Sediment Capping and Institutional controls instead of the removal alternative previously envisioned.

SUMMARY OF THE ADMINISTRATIVE RECORD

The following presents a summary of the administrative record maintained by SCDHEC:

- In June 2010, the occurrence of a tar-like material (TLM) within the Congaree River was reported to the Department. Three sediment samples were collected and analyzed by the Department and SCE&G. It was determined that that the TLM may be attributable to the Huger Street former Manufactured Gas Plant (MGP) that was located approximately 1,000 feet to the northeast of an outfall to the Congaree River. The MGP was operated by predecessor companies of SCE&G beginning in the early 1900s and ending in the 1950s.

- The Huger St. Former MGP Site is currently being administered by the Department via a Voluntary Cleanup Contract (VCC# 02-4295-RP). This VCC has been extended to include the impacted Congaree River sediment.

- After the initial discovery of TLM in June of 2010, SCE&G in conjunction with the Department conducted investigation activities within in the Congaree River to delineate the extent of TLM-impacted sediments. The delineation work was completed in five separate phases over approximately 18 months. The results of the delineation activities were submitted to the Department on March 23, 2012 in the Project Delineation Report (PDR) [MTR, March 2012]. Overall, the delineation activities extended from near the Gervais Street Bridge downriver approximately 9,050 feet to the area near the abandoned lock and dam. The PDR was approved by the Department on April 23, 2012.

- Next, SCE&G submitted an Engineering Evaluation/Cost Analysis (EE/CA) that evaluated potential options to address the TLM within the river. The EE/CA evaluated potential remedial approaches with respect to implementability, effectiveness and cost. In all, four remedial approaches were identified and analyzed in the final EE/CA approved by the Department in a letter dated February 7, 2013:
 - Alternative 1 - No Action – The TLM-impacted sediments would be left in their current state with no removal or mitigation activity;

 - Alternative 2 - Monitoring and Institutional Controls – Routine monitoring and evaluation of sediment conditions from within the impacted area would be conducted on a regular basis. Institutional controls in the form of a shoreline fence and signage would be put in place to limit access to the area.

 - Alternative 3 - Sediment Capping and Institutional Controls – This remedy would place a physical barrier in the form of an engineered capping system over the impacted sediment within the project area.

 - Alternative 4 - Removal and Off-Site Disposal – TLM and impacted sediment (and debris) would be excavated and transportation off-site to an approved disposal facility. This approach would include constructing a temporary cofferdam within the river to isolate the area to be excavated.

- The Department conducted a public meeting on March 21, 2013 to discuss the

nature and extent of impacts and potential cleanup alternatives. All of the public comments received supported Alternative 4 - Removal and Off-Site Disposal. Therefore, in a letter dated May 8, 2013, the Department requested SCANA begin the design and permit process for Alternative 4 – Removal and Off-Site Disposal of the impacted sediments.

- Based on the EE/CA, the removal action alternative provided the best overall protection of human health and the environment, when compared to the other alternatives. The purpose of this remedy was to remove the most risk from exposure to contaminated material.

- A critical element of the removal alternative was the construction of a cofferdam to isolate the impacted area. The cofferdam had to be of sufficient size, height, and magnitude to withstand the fluctuating river while not adversely affecting the environment.

- While working through the design and permitting process, significant concerns were identified related directly to the construction of the cofferdam. These concerns included:
 - Risk in the form of potentially increasing shoreline erosion on the west bank;
 - Risk in the form of creating flooding on the west bank;
 - Risk in the form of an overtopping event or events;
 - Risk in the form of a catastrophic overtopping event where the cofferdam material and exposed TLM would be washed downriver; and
 - Risk associated with constructability leakage and removal of the proposed cofferdam.

- Based on these risks and concerns, the full-scale removal approach was abandoned and a Modified Removal Action was considered. This newly proposed Removal Action would consist of removing TLM-impacted material from a “focused” or “targeted” area of the site. The area would primarily consist of the thicker deposits of impacted material that are generally located closer to the existing eastern shoreline, where potential exposure due to activities such as swimming or wading is greater. Conceptually, implementation of the Modified Removal Action, would be completed using large sand bags or some other temporary means to sequentially isolate water from small subsections of riverbed within the “targeted” area to facilitate removal of TLM.

- On March 2, 2015, SCE&G in conjunction with the Department moved forward with the design and permitting of the Modified Removal Action and

SCE&G began revising all previously submitted plans to incorporate the approved modifications.

- A Field Demonstration Project (FDP) Work Plan was designed to primarily evaluate procedures for handling and managing metal anomalies that exist through-out the project area. These metal anomalies were considered potential unexploded ordnance (UXO). Implementation of the FDP allowed for the USACE-approved UXO management plans to be implemented on “dryland”, before expanding the work into the full-scale river area.
- On September 1, 2015, the USACE approved the Pre-Construction Notification (PCN) for Implementing the FDP Work Plan;
- On September 2, 2015, the Department approved the FDP Work Plan.

NEW INFORMATION CONSIDERED

FDP implementation activities were conducted from September 8, 2015 through December 2015. Important findings include:

1. No potential UXO or historically significant items were identified;
2. Of the 51 previously identified Magnetic Anomalies investigated – Zero (0) were UXOs;
3. 5 ‘negative finds’ – meaning nothing was found at the previously identified metal anomaly location (i.e., no object found at approximately 10% of the locations);
4. There was a relatively large amount of “cultural debris” (i.e. metallic junk) unearthed;
5. Evaluating the metal anomalies was a time consuming and meticulous process due to the volume of subsurface metallic debris that existed within the study area;
6. The project area is located adjacent within a very dynamic river environment. Due to the unpredictable nature of the river, isolating a work area with large sand bags proved to be ineffective during implementation of the FDP.
7. Based on multiple high–water events observed during the FDP, sandbags were not an effective way to allow for excavation of contaminated material from the river. In order to complete removal activities a “full-scale” cofferdam must be constructed.
8. The storm and flooding of early October 2015 and the related breach of the Columbia Canal resulted in the deposition of thousands of tons of “new” sediment in the river and shoreline of the project area. Much of the impacted sediment has been covered with a layer of new sediment, at varying thicknesses.

CONCLUSION

The Department has reevaluated the available options presented in the EE/CA and has determined that based on the construction and permitting limitations, it is not feasible to conduct a removal of TLM / impacted sediment in the Congaree River. Therefore, it is the Department's determination that the best remedy for the site is capping of a modified removal area. The primary objective of the capping approach is to limit or prevent human exposure to impacted sediments within the Modified Removal Area. The Department requests SCE&G pursue Alternative 3 – Sediment Capping and Institutional Controls as provided in the final EE/CA (approved by the Department in February 2013). SCE&G should begin the design and permit process for the capping alternative as soon as possible.

If you have any questions or comments please contact me at (803) 898-0747 or by email at berresjl@dhec.sc.gov.

Sincerely,



Lucas Berresford
State Remediation Section
Bureau of Land and Waste Management

cc: Harry L Mathis, P.G., Midlands Region EQC Director, via email
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File 52561