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October 29, 2014

SITE ASSESSMENT,
REMEDATION &
REVITALIZATION

Tim Hornosky, P.G.
State Remediation Section
Division of Site Assessment, Remediation and Revitalization
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Re: Focused Feasibility Study Work Plan and Response to Comments
Wix Filtration Corp LLC Plant, Dillon
Voluntary Cleanup Contract No. 13-5996-RP

Dear Mr. Hornosky:

On behalf of Wix Filtration Corp LLC (Wix), WSP USA Corp is providing this Focused Feasibility Study (FFS) Work Plan (Work Plan) and response to comments on the Remedial Investigation (RI) Report dated August 21, 2014, for the Wix Plant Site located in Dillon, South Carolina. The Work Plan provides a description of the general approach and components of the FFS Report for the screening and evaluation of remedial alternatives for addressing contamination at the Site. The response to comments is provided to address the South Carolina Department of Health and Environmental Control (SCDHEC) review comments, which were provided in the September 23, 2014, correspondence to Wix.

Focused Feasibility Study Work Plan

The FFS will be conducted in general accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*¹. Given the knowledge gained from past remedial action at the site, the FFS will be focused by screening a limited number of remedial technologies and eliminating the No Action alternative.

The FFS will include the following components:

1. **Remedial Action Objectives** – the FFS will identify media-specific goals to protect human health and the environment and address the unacceptable risks to constituents of concern (COC) exposure identified in the Human Health Risk Assessment (HHRA) conducted as part of the RI.
2. **Screening of Remedial and Institutional Control Alternatives** – the FFS will conduct a screening of removal, treatment, and control options for potential effectiveness in achieving the remedial action objectives. The screening of treatment options will include an analysis of the air sparge/soil vapor extraction (AS/SVE) system currently in operation to evaluate its effectiveness in reducing mass and concentrations across the affected portion of the Site. At the conclusion of the screening step, three alternatives that are determined to be most appropriate for the Site will be retained for evaluation, ranging from a single option to a combination of options.

¹ U.S. Environmental Protection Agency, Office of Emergency and Remedial Response; August 1988.

3. **Detailed Evaluation of Alternatives** – the FFS will provide a description of the three retained alternatives to provide a clear understanding of the scope and approach to applying each alternative at the Site. Then, the alternatives will be evaluated individually and compared with one another using the nine CERCLA remedial evaluation criteria. The nine criteria are divided into three subcategories:
- a. Threshold Criteria – overall protection of human health and the environment, compliance with applicable or relevant and appropriate requirements (ARARs).
 - b. Balancing Criteria – long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment; short-term effectiveness; implementability; and cost.
 - c. Modifying Criteria – state acceptance, community acceptance.

The modifying criteria will primarily be addressed in the Proposed Plan developed by SCDHEC following approval of the FFS.

The FFS will be summarized in a report submitted to SCDHEC for review. The proposed schedule for submittal of the FFS is 60 days after completion of the activities covered by the Amendment to the Remedial Investigation (RI) Work Plan discussed in the response to Comment No. 6.

Response to Comments

Responses to the individual comments provided in the September 23, 2014, letter from SCDHEC to Wix are provided below.

Comment No. 1 – General: *The report is complete and approved as written. No revision to the report is required. The Department's comments to the report are intended to guide Wix with respect to the future response actions.*

Wix Response – No response required.

Comment No. 2 – General: *The report indicates that unacceptable non-cancer risk was identified for facility workers as well as utility/construction workers. Based on the results of the human health risk assessment, the Department has determined that a Focused Feasibility Study (FFS) is required to evaluate remedial alternatives for addressing contamination at the site.*

Wix Response – A work plan describing the technical approach and contents of the FFS is provided above.

Comment No. 3 – Section 2.3.2 (Site Background) Remedy Evaluation and Implementation: *The Department recognizes that an air sparge/soil vapor extraction (AS/SVE) remediation system has been in continuous operation at the site since December 2009 (ERM, Groundwater Monitoring Report, March 2014). However, the current system does not appear to be significantly reducing concentrations of toluene in groundwater. The FFS should include an analysis of the effectiveness of this system in reducing contaminant mass, and concentrations across the affected portion of the site. Site specific factors (geology/permeability/confining layers) and material compatibility may be hindering the AS/SVE system from effectively removing contaminant mass.*

Wix Response – The requested evaluation will be provided during the initial screening of treatment alternatives for the FFS. Given the more comprehensive understanding of site-specific geology now as compared with 2009, this evaluation will be conducted during the initial screening in order to remove from further evaluation treatment technologies that may perform similarly under the site conditions.

Comment No. 4 – Section 3.2.3 Slug Tests: *The report notes that slug testing could not be performed at well location MW-2 due to an obstruction in the well. As noted in the most recent Progress Report, shallow monitoring wells MW-2 and MW-13 have started to show signs of significant deterioration from exposure of PVC well materials to high concentrations of toluene. Replacement of these wells should be incorporated into future response actions. As with replacement well MW-4R, these wells should be constructed using stainless steel rather than PVC. Replacement well screens should be positioned to bracket the water table surface.*

Wix Response – As part of its future response actions, Wix will provide a groundwater monitoring plan to gather data necessary to assess the effectiveness of remedial measures. At that time, the groundwater monitoring plan will identify recommended locations for any new or replacement wells and specify the appropriate construction materials. Any existing monitoring well abandoned and/or replaced as part of future site remedial actions will be abandoned in accordance with the requirements specified in the South Carolina Well Standards (R.61-71).

Comment No. 5 – Section 7.3.1.1 Exposure Setting Characterization: *The report notes that based on the site's current zoning designation (ID-1) residential use is not permitted. Please note that Section 11 of the Voluntary Cleanup Contract 13-5996-RP requires that Wix shall enter and file a restrictive covenant if hazardous substances in excess of residential standards exist at the Property after Wix has completed the actions required under the VCC. Zoning will not serve as a substitute for this action.*

Wix Response – Wix intends to comply with requirements specified in Section 11 of the VCC after completion of the site remedial action, if appropriate.

Comment No. 6 – Section 7.4 Risk Characterization: *While toluene is by far the predominant contaminant at the site, the Department notes that other constituents, particularly perchloroethylene (PCE) and trichloroethylene (TCE) were also detected at levels that represented a significant contribution to total risk for the Onsite Facility Worker Exposure scenario. Future response actions and remedial alternatives investigated in the FFS should be designed to address these constituents as well as toluene.*

Wix Response – Sections 12 and 16 of the VCC provide Wix with: 1) a release, 2) contribution protection, and 3) a covenant not to sue, for the investigation and, if necessary, remediation of constituents in areas defined in the approved RI Work Plan. Wix needs to amend its RI Work Plan to include any work to be done on these additional constituents, so as to ensure that Wix obtains these same VCC protections [1) release, 2) contribution protection, and 3) covenant not to sue] for these additional constituents. Wix will submit an Amendment to the RI Work Plan to DHEC within 45 days of the approval date of this FFS Work Plan and response to comments.



Mr Tim Hornosky, P.G.
October 29, 2014

If you have any questions concerning the work plan and response to comments, please do not hesitate to contact us at the above number, or either Ken McCutcheon or Paul Caulford of Wix at (843) 774-5623.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robert E. Johnson'.

Robert E. Johnson, Ph.D., P.G.
Senior Technical Manager – Environmental
South Carolina Professional Geologist #2296

REJ:sjk:paw:kjb
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cc.: Kenny McCutcheon, Wix Filtration Corp LLC
Paul Caulford, Wix Filtration Corp LLC
Keith Clark, Affinia Group
James Hiller, Affinia Group
Weston Adams, Esquire, McAngus, Goudelock & Courie LLC