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PROMOTE PROTECT PROSPER

Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

April 4, 2016

Mr. Scott Van Pelt
Wix Filtration Corp LLC
1422 Wix Road
Dillon, SC 29536-7939

RE: Review of Focused Feasibility Study dated December 21, 2015

Wix Filtration Corp, LLC
Site ID# 403139, VCC-13-5996-RP
Dillon County

Dear Mr. Van Pelt,

The Department has reviewed the above referenced Focused Feasibility Study (FFS). The FFS was submitted to allow selection of a preferred remedy by the Department, consistent with the South Carolina Hazardous Waste Management Act and voluntary cleanup contract (VCC)-13-5996-RP. The following comments were generated during this review. These comments require revision of the FFS prior to selection of a remedy by the Department.

1. General: The Detailed Evaluation Summary compares three remedies with significantly different degrees of action. All three seek to proactively remove the majority of the contaminant mass. The FFS provides a realistic assessment of the potential for each of the remedies to achieve the Remedial Action Objectives (RAOs) including reduction of groundwater contaminant levels to below the Maximum Contaminant Levels (MCLs) in a reasonable time frame. In order to appropriately compare these remedies, assumptions must be made with respect to the time required for each remedy to achieve these RAOs. The assumed life cycles of the various remedies have a significant bearing on the overall cost, which is one consideration in the remedial selection. Because cost impacts the relative suitability of the remedies, it is calculated in detail. However, the FFS does not provide adequate justification for the assumed life cycles for each remedy. For example, Alternatives 2 and 3 are similar in that both involve initial excavation of the most contaminated soils. Alternative 2 is assigned a shorter life cycle because it includes additional active remediation, while Alternative 3 does not. However there is no information provided as to how the authors arrived at relative life cycles of 7 and 10 years, respectively. Please include the calculations that provide the basis for the estimated times necessary to reach RAOs for each remedial alternative.

2. Section 3.3.2 Groundwater: The calculation used to determine the volume of impacted groundwater skipped the step of converting from cubic feet to gallons. The volume of 188,300

(cubic feet) should be multiplied by 7.48, giving an impacted groundwater volume of 1,408,634 gallons.

3. Section 5.2.1 No Action: As indicated in the text, CERCLA would require that the site be evaluated at least once every five years in the event that contaminants remain onsite above levels that allow for unrestricted use. Please note that this condition applies to any remedy that leaves contaminants onsite above levels that allow for unrestricted use.

4. Section 6.1.4 Long-Term Effectiveness and Permanence: Please cite the source of the "Reliability with Time" criterion.

5. Section 6.1.6 Implementability: This criterion also considers availability of services and materials. Please provide discussion of implementability with regard to hazardous waste disposal for excavated soils.

6. Section 6.2.1: The 20 year estimate seems excessive. Please provide justification for this assumption, for example estimated radius of influence, soil permeability, area of impact, etc.

7. Sections 6.2.1.1; 6.2.3.1; 6.3.1: The evaluation states that Alternative 1 generates waste (spent carbon) and consumes energy (electric blower motor), which is true, but does not make a similar statement with regard to Alternative 3, which is calculated to generate 700 tons of hazardous waste, and requires operation of a diesel excavator and haul trucks to remove waste. Thus, Alternative 1 has been assigned a lower score for overall protection of human health and the environment than Alternative 3. That renders the comparison subjective and suggests bias. Please provide estimated waste quantities and energy consumption in order to accurately compare alternatives.

8. Section 7 presents that rationale that risk to site workers from a properly designed and functioning treatment system is greater than the risk presented from uncontrolled residual contamination. The Department rejects this conclusion as unsupported. Further, greater risk is presented to site workers during excavation and hauling than during operation of a treatment system similar to the one which has operated at the site since 2009. This statement should be removed.

9. The Department has given due consideration to Section 7, Recommended Alternative. The Department agrees that excavation and off-site disposal of the most highly contaminated soils is the most effective and timely of the alternatives evaluated, and is prepared to approve this component as part of a selected remedial alternative. However, the Department does not agree that leaving residual contamination in place untreated (MNA) will result in lower potential impact to human health and the environment as the FFS suggests. In a conference call between the Department and WSP on March 25, 2016, the Department provided additional technical information to WSP that may offer a significant improvement in contaminant mass reduction in a short time frame, without significant additional capital costs. This remedy would require the reinstallation of wells into the area of the excavation. It would also benefit greatly from backfilling the excavated area with a more permeable material, such as that suggested in Alternative 2, rather than re-use of overburden soils as in Alternative 3. The Department is amenable to having a conference call with the project team to discuss incorporation of these features into a selected remedy.

10. Table 6-1 (Implementability) indicates that the excavation considered under Alternative 2 would require a pre-design study to design an excavation shoring system, but that Alternative 3 would

not. Please clarify the difference between excavation in alternatives 2 and 3 that results in this discrepancy.

Please revise the FFS as indicated in the comments above, and submit the revised FFS to my attention on or before May 25, 2016. If you have questions, or would like to set up a meeting or conference call to discuss this project you can reach me at (803) 898-0733, or by email at hornostr@dhec.sc.gov

Kindest Regards,

Tim Hornosky, P.G.
State Remediation Section
Division of Site Assessment, Remediation & Revitalization
Bureau of Land & Waste Management

cc: R. Gary Stewart, BLWM
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File # 403139