

**New York State Department of Environmental Conservation**

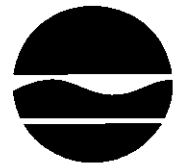
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Joe Martens  
Commissioner

December 9, 2014

Mr. John P. McAuliffe, P.E.  
Honeywell International, Inc.  
301 Plainfield Road  
Suite 330  
Syracuse, NY 13212

**Re: Wastebed B/Harbor Brook Site  
Revised Remedial Investigation Report**

Dear Mr. McAuliffe:

The New York State Department of Environmental Conservation (NYSDEC) has reviewed the "Wastebed B/Harbor Brook Revised Remedial Investigation Report" (RI), dated March 2014. Based on the review, the following comments will need to be addressed.

*Typically, page numbering corresponds to complete paragraphs on a page, and begins with the first full paragraph on a page. Paragraph numbering typically includes the last paragraph on a page, even if that paragraph continues onto the next page. Bullets are considered part of the paragraph introducing them. Page numbers below refer to the clean version unless otherwise indicated.*

1. **General.** There is no discussion of the summary of the human health and ecological risk assessments in this RI report. As one of the goals of the RI is to identify these risk-driving chemicals, the executive summary and the conclusion should include this information. In addition, it is typical that individual chapters in the RI report present a summary of the steps and conclusions of the risk assessment.

A summary of the risk assessments consistent with other Onondaga Lake subsite RI Reports (e.g., WBs 1-8 Revised RI Report) will need to be included. The summary of the human health evaluation should include discussion of the Exposure Assessment, Toxicity Assessment, and Risk Characterization. The summary of the Ecological evaluation should discuss the contaminants of concern which were risk drivers and the impacted receptors. Key findings and conclusions of the human health and ecological evaluations should be summarized in the Executive Summary and Conclusions sections of the report.

2. **Page xxii, Paragraphs 2 and 3, Executive Summary.** The text should clarify that data collected for the design of the IRMs, such as the 2008 and 2010 sampling in the Outboard Area, are not presented in this RI report. Note that this information and the information

from the SYW-12 Sources of Contamination Investigation Report will need to be considered in the FS.

3. Pages xxvi – xxviii, Executive Summary and Pages 191-192, Section 9.1. As stated above, the “Conclusions” should include information on the outcomes of the human health and ecological risk assessments, including the risk-driving contaminants of concern in each media and the exposure pathways that identified these risk drivers. Please revise accordingly.
4. Page xxviii, Bullet 3 and page 192, Bullet 12. The second sentence of these bullets should be revised to state “An additional investigation was undertaken to identify the extent and the source of the “tarry material” observed in borings at SYW-12, and the results of this investigation are provided under separate cover [include a reference the SYW-12 Sources of Contamination Investigation].”
5. Page xxviii, Paragraph 2, Bullet 2, Executive Summary and Page 193, Paragraph 1, Bullet 2, Section 9.2. The RAO reads, “Eliminate, to the extent practicable, unacceptable risks to human and ecological receptors associated with contaminated soil, sediment, surface water, ground water and soil vapor.” Typically, RAOs developed to reduce risk are (1) presented separately for human health and ecological receptors and (2) presented with more specificity in what the risks are associated with so that the remedial goals are more directly linked to the RAO. For example, ‘eliminate, to the extent practicable, unacceptable risks to human receptors associated with direct contact with soils, groundwater, surface water and sediment, and inhalation of soil vapors.” Please revise.
6. Page xxviii, Paragraph 2, Bullet 4, Executive Summary; Page 4, Paragraph 4, Section 1.4.2; and Page 193, Paragraph 1, Bullet 4, Section 9.2. The text here indicates that activities to address contamination in the East Flume occurred under one IRM, but, in actuality, the activities were conducted under three IRMs, the East Flume IRM, the Wastebed B/Harbor Brook IRM, and the Outboard Area IRM. Please revise accordingly.
7. Page 6, Paragraph 2, Section 1.4.5. The seventh sentence should be revised to state “Subsequent to the RI investigations, the area ditches, associated wetlands, and the length of Harbor Brook along the Railroad Area were remediated....”
8. Page 6, Paragraph 1, Section 1.4.4. The fifth sentence should be revised to state “Subsequent to the RI investigations, the lower portion of Harbor Brook....”
9. Page 14, Section 2. A brief discussion of the SYW-12 Sources of Contamination Investigation including the major findings should be discussed in this section. The approved SYW-12 Sources of Contamination Investigation should also be included in the references.
10. Page 52, Paragraph 3, Sentence 2, Section 2.3.1. Replace “The HHRA will focus...” with “The HHRA focused....”
11. Page 52, Paragraph 3, Sentence 2, Section 2.3.1. Replace “The assessment will not evaluate Site-related chemical substances that may have migrated to Onondaga Lake, since

Onondaga Lake is being investigated and evaluated under a separate Consent Order.” with “The assessment did not evaluate Site-related chemical substances that may have migrated to Onondaga Lake since Onondaga Lake was investigated and evaluated under a separate Consent Order.”

12. Page 52, Paragraph 4, Section 2.3.1. Replace “The risk assessment will be conducted...” with “The risk assessment was conducted....”
13. Page 99, Paragraph 7, Sentence 3, Section 4.3.1. Since not all detected CPOIs were included in Table 4.13 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.13.” should be deleted. Please revise accordingly.
14. Page 101, Paragraph 2, Sentence 1, Section 4.3.1. Please revise the sentence, “Naphthalene, PAHs, and Phenols have distribution is similar to Total BTEX distribution.”
15. Page 102, Paragraph 4, Sentence 3, Section 4.3.1. Since not all detected CPOIs were included in Table 4.14 as noted in Sentence 4 of this paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.14.” should be deleted. Please revise accordingly.
16. Page 104, Paragraph 5, Sentence 3, Section 4.3.1. Since not all detected CPOIs were included in Table 4.15 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.15.” should be deleted. Please revise accordingly.
17. Page 105, Paragraph 1, Section 4.3.1; Table 4.15. The text indicates that mercury was detected in the lakeshore deep groundwater in only one well. However, Table 4.15 which lists the lakeshore deep groundwater contaminants, does not include mercury. Additionally, manganese is presented twice in Table 4.15. Please review and revise as necessary.
18. Page 106, Paragraph 4, Sentence 3, Section 4.3.2. Since not all detected CPOIs were included in Table 4.16 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.16.” should be deleted. Please revise accordingly.
19. Page 108, Table 4.17, Section 4.3.2. The number of exceedances for dibenzofuran is reported in the table as “AN”. Please revise accordingly.
20. Page 108, Paragraph 5, sentence 3, Section 4.3.2. Since not all detected CPOIs were included in Table 4.17 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.17.” should be deleted. Please revise accordingly.
21. Page 109, Paragraph 3, Sentence 3, Section 4.3.2. Since not all detected CPOIs were included in Table 4.18 as noted in Sentence 4 of this Paragraph, the sentence here,

“Detected CPOIs are listed below in Table 4.18.” should be deleted. Please revise accordingly.

22. Page 111, Paragraph 3 and Page 183, Paragraph 3. The July 21, 2010 follow-up response related to Comment 6.24 does not appear to have been addressed. In addition, paragraph 3 on page 183 and paragraph 3 on page 111 do not appear to have been changed from the November 2009 redline version. Please address.
23. Page 112, Paragraph 5, Sentence 3, Section 4.3.3. Since not all detected CPOIs were included in Table 4.19 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.19.” should be deleted. Please revise accordingly.
24. Page 113, Paragraph 2, Sentence 3, Section 4.3.3. Since not all detected CPOIs were included in Table 4.20 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.20.” should be deleted. Please revise accordingly.
25. Page 115, Paragraph 2, Sentence 3, Section 4.3.3. Since not all detected CPOIs were included in Table 4.21 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.21.” should be deleted. Please revise accordingly.
26. Page 116, Paragraph 4, Sentence 3, Section 4.3.4. Since not all detected CPOIs were included in Table 4.22 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.22.” should be deleted. Please revise accordingly.
27. Page 118, Paragraph 2, Sentence 3, Section 4.3.4. Since not all detected CPOIs were included in Table 4.23 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.23.” should be deleted. Please revise accordingly.
28. Page 119, Paragraph 2, Sentence 3, Section 4.3.4. Since not all detected CPOIs were included in Table 4.24 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.24.” should be deleted. Please revise accordingly.
29. Page 120, Paragraph 4, Sentence 3, Section 4.3.5. Since not all detected CPOIs were included in Table 4.25 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.25.” should be deleted. Please revise accordingly.
30. Page 122, Paragraph 2, Sentence 3, Section 4.3.6. Since not all detected CPOIs were included in Table 4.26 as noted in Sentence 4 of this Paragraph, the sentence here, “Detected CPOIs are listed below in Table 4.26.” should be deleted. Please revise accordingly.

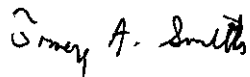
31. Page 132-150, Section 4.5. Since the discussion of the ranges of PAH concentrations in this section generally refers to total and not individual PAHs, it would be helpful to the reader if this could be clarified in the text. Please revise accordingly.
32. Page 135, Paragraph 2, Sentence 2, Section 4.5.1 and Figure 108. The text indicates that total TEQs is 23.3 ng/kg at HB-HBSED-11 (1.5-3 ft), however the concentration is shown as 23.5 ng/kg in Figure 108. Please revise accordingly.
33. Page 139, Paragraph 3, Sentence 1, Section 4.5.3 and Figure 108. The text indicates that total TEQs range from 0.22 ng/kg (HB-HBSED-04 [0.5-1ft]) to 42.9 ng/kg (HB-HBSED-05 [0-0.5 ft]), however Figure 108 shows these concentrations at 0.4 ng/kg and 45 ng/kg, respectively. Please revise accordingly.
34. Page 140, Paragraph 2, Sentence 2, Section 4.5.4 and Figure 108. The text indicates that total PAHs is 22,040 µg/kg at HB-HBSED-18 (0.5-1 ft), however the concentration is shown as 21,600 µg/kg in Figure 108. Please revise accordingly.
35. Page 145, Paragraph 2, Sentence 3, Section 4.5.5 and Figure 108. The text indicates that total PAHs is 2,270,000 µg/kg at HB-T-4-2 (0.5-1 ft), however the concentration is shown as 3,185,000 µg/kg in Figure 108. Please revise accordingly.
36. Page 145, Paragraph 4, Sentence 1, Section 4.5.5 and Figure 108. The text indicates that the highest value for total TEQs in Harbor Brook sediment is 49.8 ng/kg at HB-T-1-2 (1.5-4.4 ft), however the highest concentration for total TEQs at HB-T-1-2 shown on Figure 108 is 188.4 ng/kg at the 0.5-1.5 ft interval. Please revise accordingly.
37. Page 147, Paragraph 1, Sentence 3, Section 4.5.5 and Figure 108. It is indicated here that total BTEX values ranged from 1,580,000 µg/kg (HB-T-5-OIL [4.43-14.43 ft]) to 17,800,000 µg/kg (HB-T-3-OIL [4.1-6.86 ft]), however the corresponding sampling intervals shown on Figure 108 are 0-0 ft. Please clarify.
38. Page 149, Paragraph 1, Sentence 3, Section 4.5.6; page 150, Paragraph 1, Sentence 2, Section 4.5.6; and Figure 108. The text here refers to East Flume sediment samples HB-S213 and HB-S214 on Figure 108, however these samples are not shown on the figure. Please revise accordingly.
39. Page 174, Paragraph 5, Section 6.2. It is stated that deep groundwater along the lakeshore has not likely been affected by CPOIs and deep groundwater does not transport CPOIs to the lake. As stated in Section 3.3.2, "recent data collection activities associated with Harbor Brook IRM indicates a lack of silt and clay on the western portion of Wastebed B between HB-GP-01 and HB-GP-02." Please clarify if deep groundwater in this area has been sampled to confirm the statements above. Otherwise, the statement in Section 9.1 Conclusions (fourth bullet on page 192) regarding deep groundwater in the western portion of the Lakeshore Area should be included here.
40. Page 177, Section 6.3.2, Coal Tar-Like DNAPL Recovery. Low recovery rates on the wells tested is not sufficient justification to preclude the installation of a recovery system to capture the DNAPL. As stated elsewhere in the text, the DNAPL is presumed to have

migrated from the Penn-Can property to its current location (including beneath Harbor Brook), indicating the mobility of the DNAPL. The text should be revised as appropriate.

41. Page 193, Paragraph 3, Sentence 2, Section 9.3. The sentence should be revised as follows. "Two separate FS documents, one for SYW-12 and one for the remainder of the Wastebed B/Harbor Brook Site, will be submitted in consideration of property ownership and stakeholder complexities associated with SYW-12, which may affect the FS schedule for SYW-12, and to allow the FS for the remainder of the Wastebed B/Harbor Brook Site to proceed in an unencumbered fashion."
42. Tables 4.27 through 4.30. The July 21, 2010 follow-up response related to Comment 4.60 does not appear to have been addressed in Tables 4.27 through 4.30. The response provided an additional note for the tables that was not included. Please revise.
43. Figure 115. The figure does not appear to be consistent with Figure 20 which also intends to show the geologic cross section B-B'. For example, the top of the Solvay Waste unit is 15-20 ft higher in Figure 20 than in Figure 115, and the fine sand and silt unit is much thinner in Figure 20 than in Figure 115. Please explain or revise, as appropriate.
44. Figure 115. The figure should include a reference for the cross section B - B' (e.g., Figure 18). Please revise accordingly.
45. Figure 116. The figure should include a reference for the cross section H - H' (e.g., Figure 18). Please revise accordingly.

These comments will need to be addressed in a response to comments letter and in a revised RI within 60 days. If you have any questions regarding these comments, please contact me at 518-402-9796.

Sincerely,



Tracy A. Smith  
Project Manager

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