

 pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION	REPORT COMMENTS C. David Brown 17 Nov 2016	Commonwealth of Pennsylvania Department of Environmental Protection Southeast Regional Office Environmental Cleanup and Brownfields
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Site: Philadelphia Refinery AOI 10 3144 Passyunk Avenue Philadelphia, PA 19145	eFACTS Facility ID: 720775	Tank Facility ID: <i>n/a</i>
	Incident ID: <i>n/a</i>	NIR Date: 17 Nov 2014
Municipality: Philadelphia	County: Philadelphia	Location: 39.9165°N, 75.2063°W

Comments on AOI 10 “Site Characterization/Remedial Investigation Report” dated 29 Jun 2011, prepared by Langan Engineering and Environmental Services, Inc., and “Ecological Risk Assessment Report for Sediment in Lands Creek” dated Jun 2016, prepared by GHD Services, Inc., on behalf of Evergreen Resources Group, LLC, for the former Sunoco Philadelphia Refinery, currently the Philadelphia Energy Solutions Refining and Marketing LLC facility.

1. According to the 2011 RIR, soil was removed from the area of the 2010 VGO release. Please describe and document the disposition of that soil
2. DEP notes some limitations to the soil investigation.
 - No soil samples were obtained from the emergency containment areas of the former tank field.
 - Soil samples were not collected deeper than 2' from most of AOI 10 (with the exception of the waste disposal areas).
3. DEP promulgated revised Act 2 standards in Aug 2016. They may affect the results discussed in the 2011 RIR. For example, vanadium apparently exceeds the direct contact MSC in some soil samples.
4. DEP recommends that Evergreen assess the condition of the clay caps over each of the four waste disposal areas. The cap thicknesses should be determined. Maintenance of the caps will presumably be an activity-and-use limitation for the facility.
5. In 2011 Sunoco proposed delineation and remedial action for certain areas with benzo(a)pyrene and lead exceedences in shallow soil. DEP awaits the submittal of a cleanup plan describing this work. A post-remediation risk assessment report may be required if direct contact standard exceedences remain.
6. Lands Creek surface water sampling in 2011 indicated no exceedences of DEP’s Ch. 93 fish and aquatic life criteria. Ch. 93 waives potable water supply as a protected use for the tidal Delaware River and Schuylkill River estuaries. However, human fish consumption remains a potential use. DEP has calculated provisional human health criteria for fish consumption (attached). Compliance with these criteria should also be assessed.

7. Chrysene was nondetect in the surface water samples, but the detection limit was 5 µg/L. The provisional human health criterion (fish consumption) for chrysene is 0.018 µg/L, so compliance is indeterminate. Chrysene exceeded in groundwater in AOI 10, up to 6 µg/L near Lands Creek. Additional sampling with analysis to a lower detection limit may be necessary (e.g., Method 610 using HPLC; see Ch. 16, Table 2B). (Evergreen may also consider pursuing a waiver of human health criteria, as per §250.406(c). This would require an activity-and-use limitation.)
8. Langan stated in the 2011 RIR that the great egret was an endangered species of concern for AOI 10. The 2015 PNDI review did not include the egret. Can GHD explain why the egret is no longer a concern?
9. The Pennsylvania Fish and Boat Commission requested coordination in the event of surface disturbances within 300' of the creek. Any remedial activities in this margin should be cleared with the PFBC (e.g., excavation of shallow soil exceedences at BH-10-53 and BH-10-64).
10. Please provide a reference for the sediment screening levels and indicate the date of issuance for the values used.

C. David Brown P.G. Pennsylvania Registered Professional Geologist No. PG005002	Date
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