

REMEDIATION COMPLETION/ PROJECT CLOSEOUT REPORT OUTLINE

*Per the Delaware Regulations Governing Hazardous Substance Cleanup (September 1996, Amended February 2002) and the HSCA Guidance Manual (October 1994) , it is required that a Project Closeout Report (-AKA- Construction Completion Report) be submitted to the Department of Natural Resources and Environmental Control (DNREC) upon completion of remedial action construction.

The following outlines the information to be included in such a report.

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- A. **Executive Summary** (1 page MAXIMUM)
 - B. **Introduction**
 - a. Site Description/ History
 - b. Summary of Environmental Investigations - a brief, concise discussion of the investigations conducted at the site. There must be information regarding:
 - i. Contaminants of Concern
 - ii. Risk Evaluations
 - c. Overview of the Remedial Action Objectives & Final Plan of Remedial Action
 - C. **Interim Remedial Action Activities** – All IRA activities should be performed in accordance with DNREC-approved site-specific plans, e.g. Contaminated Materials Management Plan (CMMP), Health and Safety Plan (HASP) Possible interim remedial action activities may include, but are ***not limited to*** the following, as appropriate:
 - a. Excavation and Off-site Disposal of Soil
 - i. Hazardous
 - ii. Non-Hazardous
 - b. Dewatering
 - i. Treatment of groundwater
 - ii. Discharge of groundwater
 - c. Removal/Abandonment of Underground Storage Tanks – Performed in accordance with the Regulations Governing Underground Storage Tanks, under the jurisdiction of the DNREC - Tank Management Branch
 - i. Disposal of Sludge
 - 1. Hazardous
 - 2. Non-Hazardous

ii. Disposal of Oily Water

d. Soil Reuse

e. Other intrusive activities for site preparation

D. Implementation of Final Remedial Action(s)—Possible remedial actions include, but are *not limited to* the following (as indicated in the Final Plan of Remedial Action):

a. Soil

i. “Dig and Haul” or Soil Excavation

ii. Engineered cap – e.g. soil, asphalt, or concrete

iii. Vapor Barrier

iv. In-situ Solidification (ISS)

v. Other treatment technologies

*Reference DNREC’s approval of clean fill source prior to placement of material on-site.

b. Groundwater

i. Monitoring

ii. Pump and Treat

iii. Permeable Reactive Barrier

iv. In-situ Injection

1. Chemical Oxidation

2. Hydrogen Reducing Compound (HRC)/Oxygen Reducing Compound (ORC)

3. Lactate/ Zero-Valence Ion (ZVI)

v. Other treatment technologies

c. Sediment Dredging

**Please include photographs documenting construction activities and also a map indicating the locations at which the remedial action(s) was constructed in the Appendix and reference in this section of the document.*

E. Summary of Institutional Controls/ Long Term Groundwater Monitoring Plans, if applicable

F. References

FIGURES – The following should be included if applicable, but not limited to:

- Site Location Map
- Site Layout
- Location(s) of (Interim) Remedial Action Activities on the site (e.g. clean utility corridors, clean fill areas, paved areas)
- “As-built” drawings, also depicting the original site grade on the same figure(s)

TABLES - The following should be included if applicable, but not limited to:

- Material disposal summaries

APPENDICES - The following should be included if applicable, but not limited to:

- Photographs (e.g. utility corridors)
- Waste Manifests
- Summary of Environmental Field Reports
- Pertinent DNREC-SIRB correspondence related to remedy modifications
- DNREC-TMB No Further Action Letters for UST Removal/Abandonment