Interim Action Work Plan – Sludge Excavation and Disposal Program
for the
Superlon Plastics Site, Tacoma, Washington

Prepared For:

White Birch LLC
2116 Taylor Way
Tacoma, Washington 98401

and

E.I. duPont de Nemours and Company
1108 Ohio River Blvd., Suite 801
Sewickley, PA 15143

September 23, 2011

_____
Jeffrey D. King, LG., Project Manager

Pacific Environmental and Redevelopment Corporation
8424 East Meadow Lake Drive
Snohomish, Washington 98290
425.827.6867

Table of Contents

Figures

1 Introduction

1.1 General

This Interim Action (IA) Work Plan has been prepared on behalf of White Birch, LLC (White Birch) and E. I. duPont de Nemours and Company (DuPont). These companies are hereafter referred to as the Companies. The Companies, or their authorized agent, will complete the work described in this Work Plan in accordance with the State of Washington Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC) under Agreed Order No. DE 5940.

Under the Agreed Order (AO) the Companies are allowed to use of interim actions to aid the collection of samples for the Remedial Investigation (RI) and/or to improve site conditions. The purpose of the described actions is to improve site conditions in a manner protective of human health and the environment, so that a new inventory storage structure can be erected on site.

1.2 Site Location and Description

This Work Plan presents a technical approach for conducting an IA at the Superlon Plastics Property (Property) generally located at 2116 Taylor Way, Tacoma, Washington. The Property (also known as Parcel A) covers 3.1 acres and is listed as tax parcel number 0321351042. The Site, as defined by the Washington State Department of Ecology (Ecology), boundaries are currently undefined, but includes the Property (Figure 1).

The Property is currently owned by White Birch, LLC and operated by Superlon Plastics Inc., an extruded plastic pipe manufacturer (see Figure 2). Taylor Way borders the northeast edge of the property. Beyond Taylor Way is Port of Tacoma property. The Property is bounded to the north by curved rail road right-of-way owned by the City of Tacoma Public Works (Parcel D). Beyond this right-of-way is a vacant triangle shaped parcel of land owned by the Port of Tacoma (Parcel C). To the northwest are Lincoln Avenue and a warehouse operation. To the south and southwest is Port of Tacoma property, which is leased and operated as the Haub Log Yard. The property to the southeast (Parcel B) is owned by RTH Tacoma, LLC and leased and operated by Fields Products, a roofing and waterproofing products manufacturing business.

The Property is located in a highly industrialized area of the Tacoma Tidal Flats between the Blair and Hylebos Waterways. Several known MTCA cleanup sites are within a quarter mile of the facility, including two chemical manufacturing plants (the Reichold Chemical/SSA Container site and the Atofina (formerly ELF Atochem) site), and the former Murray Pacific Log Yard #1, which is owned by the Port of Tacoma. The Hylebos Waterway NPL site is located to the northeast.

The Tidal Flats were filled and developed in the early 1900's. Fill material in the general area include dredge materials, native soils and various types of waste and debris, including slag and industrial wastewater sludges. The Property shows evidence of historical filling activities; however, the nature and origin of most of the fill material is unknown.

1.3 Objective and Summary of the proposed Interim Action

The objective of the work to be completed under this Work Plan is to improve site conditions in a manner protective of human health and the environment, so that a new inventory storage structure can be erected on site. The Companies will accomplish the objectives of the Work Plan by following the scope of work described below:

1. Excavate, segregate and stockpile overlying gravel and soils for reuse after removal of the underlying sludges.
2. Excavate sludges containing volatile organic compounds (VOCs) from the area approximated in Figure 3. This sludge is suspected to be industrial wastewater sludge from the Occidental Chemical Plant that was placed on the property as fill material. Analytical testing results of this material compare well to the chemical fingerprint of the Occidental Chemical wastewater sludge developed by Ecology. Up to 500 cubic yards (CY) of material will be excavated during this IA. Since this material is easily distinguished from the surrounding soils, the final limit of excavation will be based upon the visual absence of this material.
3. Either direct load or temporarily stockpile the excavated materials on site for its subsequent loading, hauling and disposal at the Chemical Waste Management facility in Arlington, Oregon.
4. Backfill the excavation with stockpiled soil, supplemented with imported soil to the level of the current land surface. Replace and re-grade the surface gravel layer, as required by the Site's stormwater permit.

1.4 Required Permits and Approvals

The following permits and approvals must be obtained prior to the initiation of work:

- Ecology's approval of this Work Plan.

2 Interim Action Phase II – Proposed Scope of Work

2.1 Overview

This section presents the approach and methods that will be used to meet the objectives outlined in Section 1.3. Following the completion of this interim action the Companies will submit a report to Ecology documenting the work performed. Figure 3 shows the approximate location where the interim action activity will occur.

If Ecology, upon their review the Interim Action Report, determines that additional IAs are necessary, the Companies will develop supplemental IA work plans for Ecology's approval.

2.2 Removal of the Overlaying Soils and Gravel

2.2.1 Current Conditions

A minimum of an 18-inch thick layer of gravel was installed above the area to be excavated. In addition the material to be excavated is overlain by varying thicknesses of imported fill. This overlying fill material is a dark gray / brown sand with wood debris. The characteristic of the sludge material to be excavated is medium gray, clay-rich material.

2.2.2 Excavation and Stockpiling

Since the physical characteristics of the overlying materials are so different from the material to be excavated, the separation of these materials will be manageable. The overlying soils and gravel will be excavated, segregated, and stockpiled on-site on 20-mil plastic and covered with 20-mil plastic for reuse as backfill during the backfilling of the excavation.

2.3 Excavation of Sludge

2.3.1 Current Conditions

Analytical results from the sludge obtained during Phase I and II of the RI indicate the presence of various VOCs, in particular tetrachloroethylene, trichloroethylene, *cis*-1,2-dichloroethylene, vinyl chloride, and chloromethane. This material was discovered in the first Phases of the RI at a thickness ranging from 2-inches to 6-feet, in the approximate area shown on Figure 3.

2.3.2 Excavation and Management / Disposal

The sludge will be excavated to its limits based on visual observation. If the material is observed extending to the property boundary or to the edge of existing structures, the lateral limits of excavation will be the property boundary or the building edge, respectively. The approximate excavation limits are shown in Figure 3, and the estimated volume of soils to be excavated is up to 500 CY.

The anticipated duration for the excavation work is 7-10 days. If possible, the sludges will be direct loaded into trucks / roll-off boxes for transport to the Chemical Waste Management Facility in Arlington, Oregon where, if necessary, they will be treated in the Organic Recovery system prior to disposal. If direct loading is not possible, then the sludges will be stockpiled on site on 20-mil plastic and covered with 20-mil plastic until disposal is accomplished.

2.4 Backfilling of the Excavation

2.4.1 Post-Excavation Conditions

Soils possibly containing concentrations of cadmium, lead, and/or arsenic greater than the MTCA cleanup standards for industrial sites may remain following excavation. Exposure to these soils will be managed through backfilling the excavation and gravel capping to act as a barrier to direct contact.

2.4.2 Backfilling of the Excavation

The excavation will be backfilled and gravel capped to the elevation stipulated in the Site's Stormwater Permit. Backfill will consist of the recovered soils and gravel, and supplemental soils obtained from off site.

2.5 Decontamination and Personnel Protection

Decontamination of personnel and equipment as well as the health and safety procedures for personnel protection will follow the processes identified in the Project HASP.

3 Documentation and Reporting

The Companies or their authorized agents will document IA activities using daily reports and additional forms, as appropriate. These daily reports will provide the documentation used to create an IA Technical Memorandum.

3.1 Draft IA Technical Memorandum

The Companies' technical representatives will prepare a Draft IA Technical Memorandum describing the actions that were conducted. The memorandum will be prepared in accordance with the schedule set forth in Section 4, and will be submitted to Ecology.

The Draft IA Technical Memorandum will include:

- A description of the work completed during this IA, noting any exceptions to the methodology described in this work plan;
- A list of disposal/recycling locations and associated records for each material collected during the described actions;
- A photographic record of the processes used and facility conditions prior to, and following the work; and,
- A figure showing post-work facility features.

4 Schedule

The estimated schedule to complete the tasks listed above is as follows:

- Mobilization and initiation of the field work will commence as soon as possible following Ecology's approval of this work plan, with excavation completed, weather permitting, prior to December 1, 2011.
- If no revisions to the schedule are necessary following consultation with Ecology all activities described in this Work Plan will be completed within 90 days of mobilization, weather permitting.
- The Draft IA Technical Memorandum will be issued to Ecology within 120 days of the receipt of the final disposal records / waste manifests.

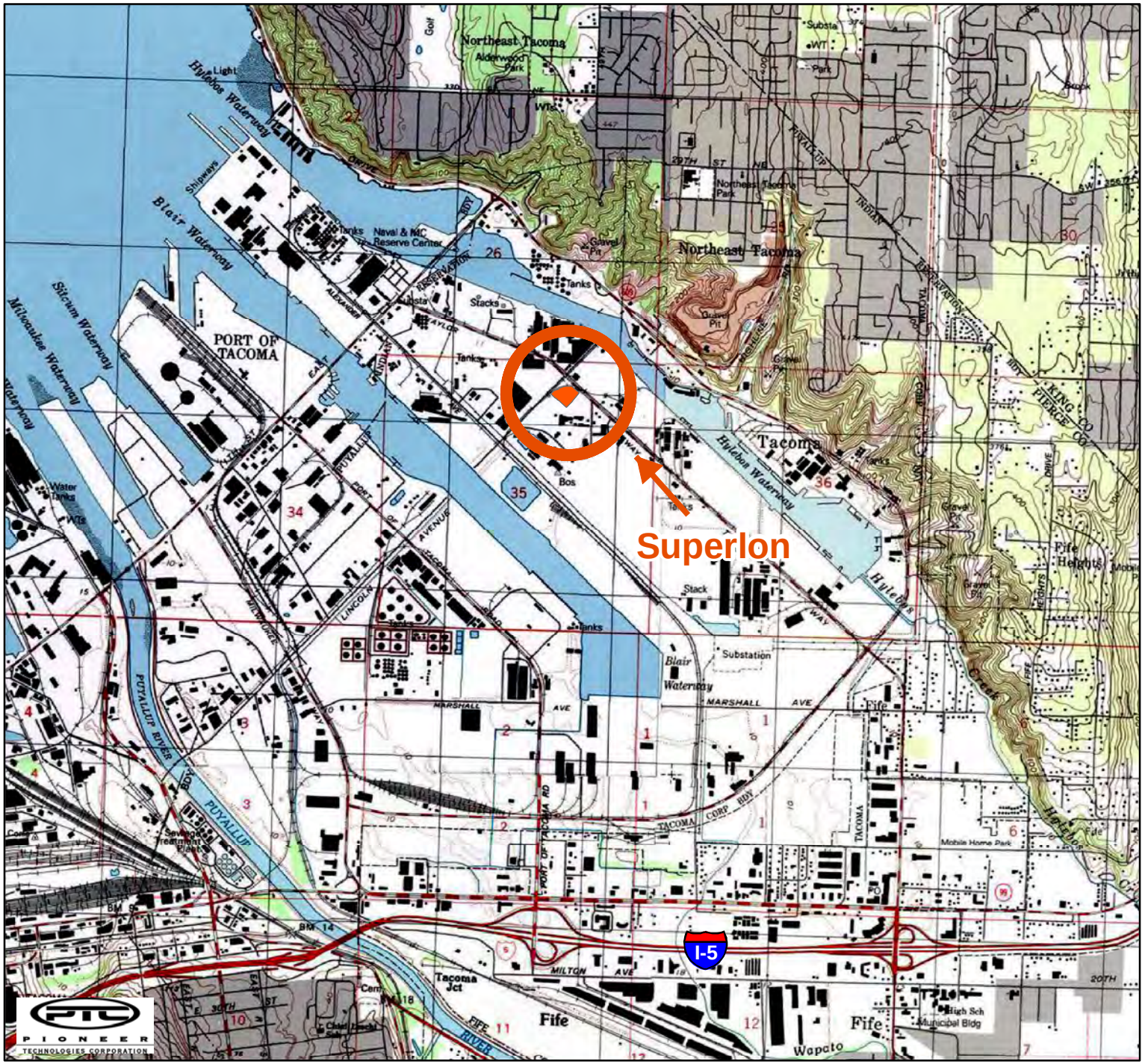
5 References

Ecology and Environment, Inc. 1991. *Technical Assistance Team Report on Taylor Way Drums.* February 28, 1991.

Landau and Associates. 2008. *Phase I Environmental Site Assessment, 2116 Taylor Way, Tacoma, Washington.* February 26, 2008.

Landau and Associates. 2008. *Soil and Groundwater Investigation, Superlon Pipe Property, 2116 Taylor Way, Tacoma, Washington.* February 29, 2008.

PERC and PTC. 2010. *Interim Action Work Plan for the Superlon Plastics Site, Tacoma, Washington*. January 12, 2010.



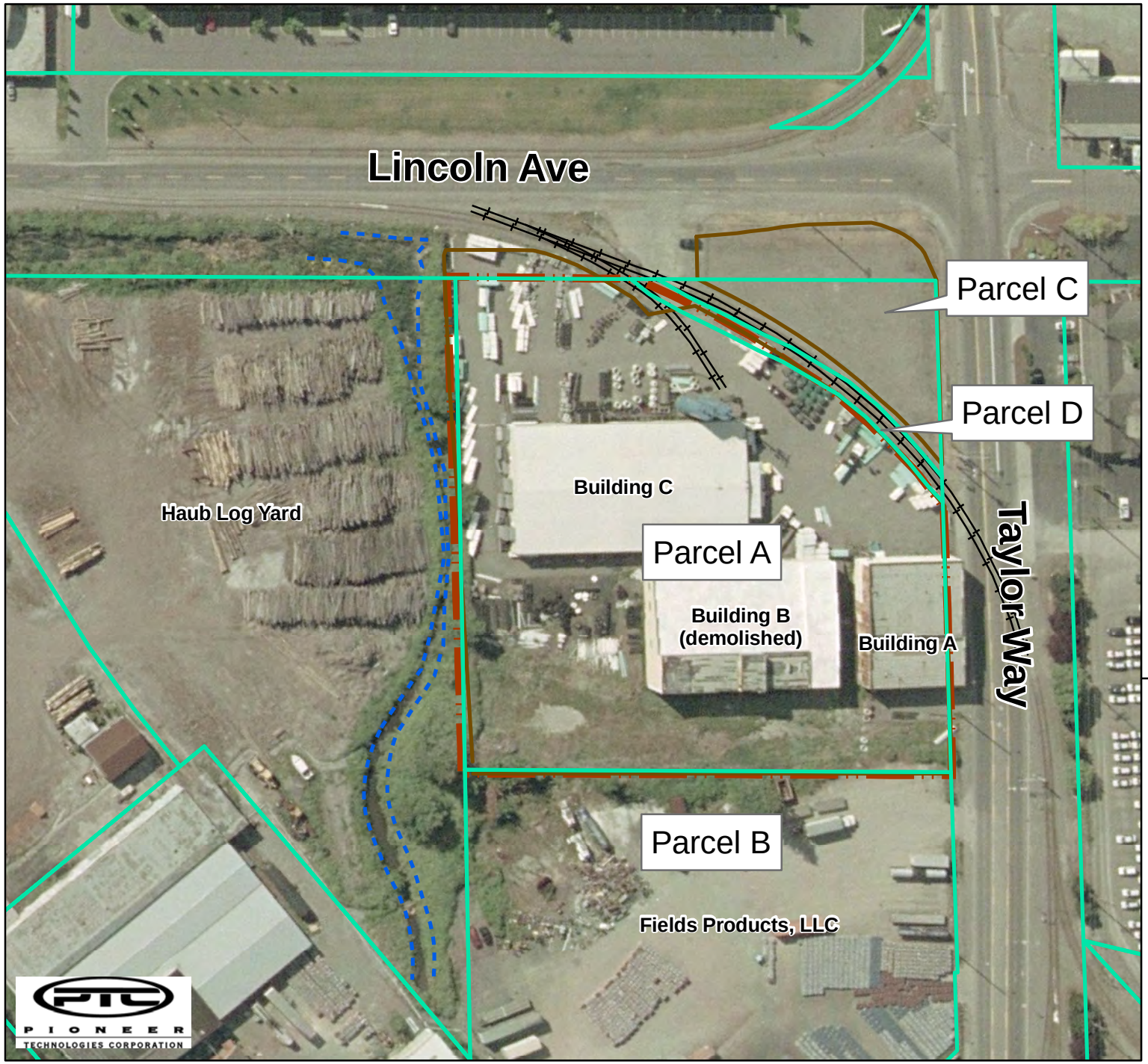
N
W E
S

0 0.25 0.5
Miles

Figure 1

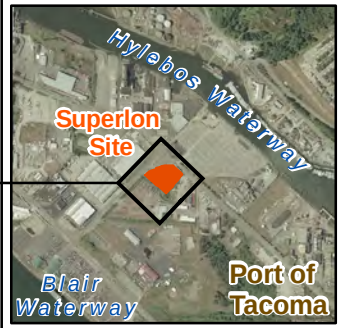
Site Location

Superlon Sept 2011



Legend

- Tax Parcel Boundary
- Superlon Property Boundary
- Existing Fence
- Railroad
- Ditch



0 25 50 100
Feet

Figure 2

Property Information

Superlon Sept 2011

Building C

Ditch

Building B
(demolished)

SUP_SL_15
Sludge Observed
from 6-8 ft bgs

SUP_SL_14
Sludge Observed
from 6-7 ft bgs

SUP_SL_47
Sludge Observed
from 4.5-7.5 ft bgs

SUP_SL_48
Sludge Observed
from 4-7 ft bgs

SUP_SL_45
Sludge Observed
from 4-8 ft bgs

SUP_SL_3
Sludge Observed
from 5-7 ft bgs

Fields Products

PIONEER TECHNOLOGIES CORPORATION

Legend

- Approximate VOC-Affected Soil Footprint
- Approximate Locations of Sludge
- Superlon Property Boundary
- Existing Fence
- Ditch

Notes:
bgs = below ground surface
PCE = Tetrachloroethylene

0 12.5 25 50 Feet

Figure 3

Approximate Locations of Sludge in Soil

Superlon Sept 2011