

## Oregon DEQ Contained In Determination Approval Signoff Sheet

**Site Name:** Progress Cleaners

**Location:** 8602 SW Hall Boulevard in Beaverton, Oregon

**Media:** Soil

**Approved Disposal:** Waste Management / Columbia Ridge in Arlington, Oregon.

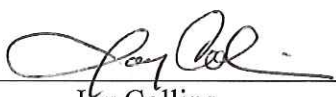
**DEQ Project Manager:**

  
Mark Pugh

Date:

12/14/17

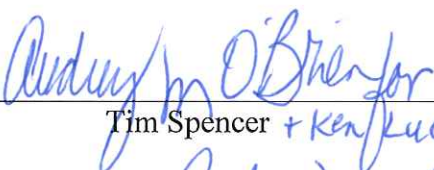
**DEQ HW Staff:**

  
Jay Collins

Date:

12/13/17

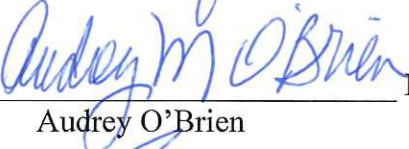
**DEQ SW Engineer:**

  
Tim Spencer + Ken Lucas

Date:

12/13/17

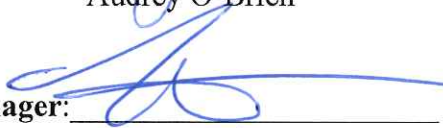
**DEQ HSW Program Manager:**

  
Audrey O'Brien

Date:

12/13/17

**DEQ Cleanup Program Manager:**

  
Kevin Parrett

Date:

12/13/17

**Department of Environmental Quality      Memorandum**

**Date:** 12/13/2017

**From:** Mark Pugh, Project Manager, NWR Cleanup Program

**Through:** Jay Collins, HW Inspector, NWR HW Program  
Tim Spencer, SW Engineer, NWR SW Program

**Approved: Audrey O'Brien, Manager, NWR HW Program**  
**Kevin Parrett, Manager, NWR Cleanup Program**

**Subject: No Longer Contained-In Determination  
Progress Cleaners Site  
Beaverton, Oregon**

The DEQ's Northwest Region Environmental Cleanup and Hazardous and Solid Waste Programs have prepared this No Longer Contained-In Determination for soil generated during monitoring well abandonment at the Progress Cleaners Site (the "Site"), located at 8602 SW Hall Boulevard in Beaverton. DEQ's No Longer Contained-In Determination was funded using the site-specific Dry Cleaner Program account for this project.

## Background Information

Progress Cleaners formerly operated in the westernmost tenant space in a strip mall occupying a 5.61 acre property owned by Hudson Investment Company. Dry cleaning operations using perchloroethylene (PCE) were conducted from 1963 until early 2007. PCE releases to soil beneath the building appear to have occurred from a drain line located along the western building foundation, and leakage through the floor at the former dry cleaner machine location.

PCE, or its breakdown product trichloroethene (TCE), in environmental media from this site would be considered by DEQ to contain a listed hazardous waste (F002).

This determination is for three drums of soil generated by DEQ during abandonment of four 15-foot deep monitoring wells. The soil will be disposed of at the Waste Management / Columbia Ridge permitted solid waste landfill in Arlington, Oregon.

## Soil Testing Results

One composite soil sample, formed by combining soil from each drum, was collected for laboratory analysis. Soil results are summarized in the table below. Samples were analyzed for volatile organic compounds (VOCs) by EPA Method 5035/8260.

### No Longer Contained-In Determination

A No Longer Contained In Determination is needed to show that the soil is not characteristic or listed hazardous waste; and that dry cleaning solvent related chemicals ~~are~~ meet protective concentration standards allowing management in a solid waste landfill.

The table below shows relevant sample results compared to the applicable DEQ risk-based concentrations (RBCs) and Toxicity Characteristic Leachate Procedure (TCLP) criteria.

| Media                     | PCE/TCE<br>Concentration<br>(mg/kg) | PCE/TCE<br>RBC Soil<br>Direct<br>Contact<br>Occ.<br>(mg/kg) | 20 x TCLP<br>Limit<br>PCE/TCE<br>for Soil<br>(mg/kg) |
|---------------------------|-------------------------------------|-------------------------------------------------------------|------------------------------------------------------|
| Drummed soil<br>(3 Drums) | 0.0241/0.190                        | 1,000/51                                                    | 14/10                                                |

To demonstrate that the soil no longer “contains” hazardous waste, the following conditions need to be met:

1. The soil (a solid) must not exhibit a characteristic of hazardous waste (must not be reactive or toxic). The potential for soil containing a waste to exhibit a toxicity characteristic is evaluated through comparison of constituent concentrations in leachate, extracted from the waste using the Toxicity Characteristic Leaching Procedure (TCLP), with the limits specified at Title 40, Part 261.24 of the Code of Federal Regulations (40 CFR 261.24). Representative (total) chemical concentrations for the soil are compared to a value of 20 times the TCLP limit (to account for the 20 to 1 dilution inherent in the TCLP analysis method) to determine if the limits could potentially be exceeded. If the 20 times TCLP limit for any chemical is exceeded, then the waste may be a characteristic waste. The 20 times TCLP limit for PCE is 14 part per million (ppm), equivalent to milligrams per kilogram (mg/kg). The 20 times TCLP limit for TCE is 10 mg/kg. The soil does not exceed the 20 times TCLP limit for PCE or TCE, and thus cannot fail their respective TCLP criteria. The soil is not a characteristic hazardous waste.
2. PCE/TCE contamination in environmental media from this site would be considered by DEQ to contain a listed hazardous waste (F002). Concentrations of hazardous constituents from listed waste must be below health-based levels for the selected management method. Currently it is DEQ policy that if soil is taken to a lined Subtitle D facility then concentrations of hazardous constituents must be below the DEQ “Occupational” RBC for direct contact. Currently this RBC for PCE is 1,000 mg/kg, and for TCE is 51 mg/kg. The concentrations of PCE and TCE are well below RBCs for direct contact with soil under an occupational exposure scenario. Based on these results the soil is such that it would be acceptable for disposal at a permitted solid waste landfill, including Waste Management / Columbia Ridge in Arlington.
3. RCRA Land Disposal Restrictions do not apply because the waste was not removed from the Area of Contamination prior to this determination. The LDR limits for these solvents are 6.0 mg/kg total PCE, and 6.0 mg/kg total TCE. The observed solvents concentrations fall well

below the LDR risk-based concentration levels, and 10x further below the LDR concentration limits allowed for disposal of environmental media under the alternate LDR standards for disposal of contaminated media found at 40 Code of Federal Regulations 268.49.

Underlying constituents of PCE might be present in the soil at concentrations below the minimum reporting levels (MRLs) shown in the laboratory data. Using the MRL concentrations and our knowledge of process, we can assume the following about the soil:

- It would not be ignitable, corrosive nor reactive;
- Concentrations of underlying constituents would be below Toxicity Characteristic levels;
- Concentrations of underlying constituents would be below DEQ protective levels (Occupational RBCs).

Based on our review of the data and the above findings, DEQ has determined that the soil IDW does not exhibit characteristics of a hazardous waste. The PCE and related VOC concentrations are below the DEQ's generic occupational risk based standards. The soil does not contain hazardous waste or pose an unacceptable risk under an occupational scenario, and thus meets the criteria for no longer containing listed waste if the soil is disposed of at Columbia Ridge solid waste landfill, as approved under this memo, and was also approved today by Ken Lucas, the assigned DEQ Solid Waste Permit Writer and Engineer.