



Second Periodic Review

Superior Asphalt Beech St
Facility/Site ID #: 488
Cleanup Site ID #: 3668
2000 East Beech Street
Yakima, Washington 98901

Prepared by:
Washington State Department of Ecology
Central Regional Office
Toxics Cleanup Program

July 2013

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1.0 INTRODUCTION

This document is the Washington State Department of Ecology's second periodic review of post-cleanup site conditions and monitoring data to assure that human health and the environment are being protected at the Superior Asphalt Beech St site (Site). The Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC). The first periodic review for this Site was completed in July 2008. This periodic review will evaluate the period from July 2008 through July 2013.

Cleanup activities at this Site were completed under Enforcement Order No. DE 91TC-C444 which was enacted in October 1991 and amended in October 1997. The cleanup actions resulted in residual concentrations of total petroleum hydrocarbons (TPH) that exceed MTCA Method A cleanup levels for soil established under WAC 173-340-740(2). As a result of residual contamination, institutional controls were required for the Site to be eligible for a no further action (NFA) determination. WAC 173-340-420(2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree
- (c) Or, as resources permit, whenever the department issues a no further action opinion
- (d) And one of the following conditions exists:
 - 1. Institutional controls or financial assurance are required as part of the cleanup
 - 2. Where the cleanup level is based on a practical quantitation limit
 - 3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions;
- (b) New scientific information for individual hazardous substances of mixtures present at the Site;
- (c) New applicable state and federal laws for hazardous substances present at the Site;
- (d) Current and projected Site use;
- (e) Availability and practicability of higher preference technologies; and
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

2.0 Summary of Site Conditions

2.1 Site History

The Superior Asphalt and Concrete facility is located in the City of Yakima in Yakima County, Washington (Vicinity Map - Appendix 6.1). Site cleanup was conducted under an amended Enforcement Order originally issued in October 1991. The Order was amended in October 1997 and again in June 2000. All remedial activities have been completed at the Site.

The Site occupies approximately 4 acres within the 100-year floodplain of the Yakima River. Asphalt was produced at the Site from approximately March to November for approximately 30 years, until 1997, when Superior Asphalt operations were moved to Selah. The majority of the petroleum hydrocarbon impacted soils are located under the Site operations area (Site Plan – Appendix 6.2). The facility is located adjacent to Interstate-82 in a commercial/industrial area.

During the 1950s, the property served as a low-income housing residential area and municipal garbage dump. No industrial activities were present at that time. The housing consisted of a series of shacks and temporary housing. A City of Yakima garbage dump occupied the area where Sarge Hubbard Park is now located. Several active faces and lifts on the dump were visible in a 1955 aerial photo. At some point prior to 1968, Superior Asphalt built their first asphalt plant at the Site. This plant used diesel as a heat source in asphalt production. Around this time, Central Premix became active on its current property with mining and stockpiling of aggregate at several locations. The garbage dump ceased operation sometime prior to 1973.

Over the next two decades, the Site continued to be developed by Superior Asphalt and Central Premix. By 1989, the Site looked much as it does today. A new asphalt plant was built by Superior Asphalt, now heated by natural gas instead of diesel. Ponds A, B and C had been developed, as they are today.

During 1991, a petroleum seep was noticed along the bank of Pond A, near the asphalt production area. Following the discovery of the seep, an Enforcement Order was issued by Ecology requiring immediate cleanup efforts.

2.2 Cleanup Levels

The Enforcement Order states that all remedial actions are to be conducted in accordance with Washington Administrative Code 173-340, which is the Model Toxics Control Act. WAC 173-340-704 states that MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for contaminants at this Site. The cleanup actions conducted at the Site were determined to be 'routine', few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance. The following MTCA Method A levels are used at the Site:

- Soil - Method A cleanup levels are appropriate for the Site soils. Method A established soil cleanup levels of 2000 milligrams per kilogram (mg/kg) for TPH-diesel (TPH-D) and 2000 mg/kg for heavy oil (TPH-O).
- Groundwater - Method A cleanup levels are appropriate for Site groundwater. The Method A cleanup level of 500 micrograms per liter (ug/L) was used for TPH-D and TPH-O.

2.3 Points of Compliance

The Enforcement Order defines the Site as 'Superior Asphalt' located at '2000 East Beech Street'. The point of compliance for soil shall be defined as the area affected by petroleum hydrocarbons in soil above MTCA Method A cleanup levels, regardless of depth, to protect groundwater.

The groundwater point of compliance is throughout the Site from the uppermost level of the saturated zone to the lowest depth that could possibly be affected by the Site.

2.4 Summary of Cleanup Actions

No cleanup actions or monitoring have been conducted at the Site since the previous periodic review was completed in 2008. Below is a summary of the remedial actions conducted under the Enforcement Order issued by Ecology in 1991.

2.4.1 Soil

In 1994, an interim action was conducted to address petroleum hydrocarbon contamination seeping into Pond A. An interception trench, liner, and product recovery system was installed to control potential migration of floating petroleum product from the Site. A total of 958 feet of trench was excavated from the office building to the north shore of Pond A. A 30-mil arctic petroleum-resistant Polyvinyl chloride (PVC) liner was placed along the downgradient race of the excavation, extending from at least 2 feet below the water table up to the ground surface. Six product recovery wells were installed along the excavation, inside the liner at approximate 150-foot intervals. Belt skimmers were installed in the two wells where free product was detected. The belt skimmers were operated for a few hours, but no additional product accumulated in the wells. The liner remains in place at the Site.

The remedial investigation/feasibility study (RI/FS) was completed in 1997. In 1996, Superior Asphalt decided that plant operations would be moved to a new location within the next two years. The decision to move the plant altered the practical remedial options to be considered

during the feasibility study, making soil removal a viable option. The final remediation design plan and cleanup plan were completed in 1999.

Remedial construction was started in 1998. As part of the cleanup plan, all soil was stockpiled as feedstock for offsite asphalt production. Soil was excavated, screened, crushed, and stockpiled for processing at an offsite asphalt plant. Soil was excavated to just above the seasonal high groundwater elevation and then test pits were dug across the bottom of the excavation to define the general area affected by remaining petroleum contaminated soils (PCS). Soil was then excavated from 2 to 3 feet below the seasonal low groundwater elevation. The majority of soil contamination was removed from below the water table, but some remains at concentrations exceeding MTCA Method A cleanup levels.

Following Site excavation, soil samples were collected from the pit sidewalls to confirm that the lateral extent of removal was adequate. Samples were collected on 50-foot intervals along the sidewalls. No samples contained petroleum hydrocarbon concentrations greater than MTCA Method A cleanup levels for diesel and heavy oil-range petroleum hydrocarbons.

The excavation area was backfilled to two feet above the water table with high-rock-content pit run. The remainder of the excavation was backfilled to the surrounding grade with soil over the next two years.

2.4.2 Groundwater

A total of 21 groundwater monitoring wells were installed at the Site during the remedial investigation. Eleven of these were removed from within the limits of the excavation. Two of the remaining wells are located downgradient of the interception trench and were used for post construction monitoring. The eight wells located upgradient of the excavation, were used for compliance monitoring.

In January 2008, Ecology approved the installation of an asphalt walking path around Pond A that was proposed by the Yakima Greenway Foundation. It was determined that the construction of this asphalt path did not violate the terms of the restrictive covenant. The construction of the pathway was approved based on the condition that 'construction and use of the path shall not result in exposure to hazardous materials remaining at the Site'. Construction of the pathway was completed in 2009.

2.5 Institutional Controls

Following cleanup activities, it was determined that institutional controls would be required at the Site to restrict activities that may create exposure pathways to contaminated soils. In 2007, institutional controls were implemented in the form of a restrictive covenant. The restrictive covenant notifies prospective purchasers of the location of contained petroleum contamination and places the following restrictions on property use:

-
1. Disturbance of the interception trench, liner, soil cover and existing, functional test wells on the Property which would allow migration of contamination is prohibited without prior notification to and approval by DOE or its successor agency.
 2. The petroleum contaminated soil, if any, East of the lined interception trench on the Property shall be physically isolated by a barrier such as a fence which will be constructed by Superior and maintained by the City, the property owner and Greenway, and not removed without prior notification to and approval by DOE or its successor agency.
 3. The Property may not be used for any residential purpose.
 4. No title or interest in the Property may be conveyed without completed provision for continued compliance with the above restrictive covenants.

A copy of the restrictive covenant is available as Appendix 6.3.

2.6 Monitoring

As part of the Enforcement Order, a long-term groundwater compliance monitoring plan was prepared for the Site. The plan included collection of groundwater samples from interceptor wells IW-2 and IW-5 and monitoring well MW-19 on a quarterly basis for one year to assess groundwater quality and identify seasonal impacts. If concentrations remained the same, diminished, or fluctuated below MTCA method A cleanup levels, sampling was to continue on a semi-annual basis for at least two years, with sampling to occur during the month of the two highest recorded quarterly results for diesel-range hydrocarbons.

Results from April 2003 indicated the presence of diesel range petroleum hydrocarbons at 0.37 mg/L in IW-2, which is below MTCA Method A cleanup levels. Contamination was not detected in any of the other wells. Following the April 2003 sampling event, groundwater contamination was not detected in any of the wells during the following seven sampling events. The requirements of the groundwater compliance monitoring plan were met following the January 2006 sampling event.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Cleanup actions at the Site were intended to eliminate human exposure to contaminated soils and groundwater at the Site. The exposure pathway to contaminated soils and free product (ingestion, direct contact) has been eliminated by the presence of clean fill in the remedial excavation area, as well as the interception trench located along Pond A. The potential exposure pathway to contaminated groundwater has been removed by excavation of the contamination source material and the interception trench, which prevents any additional migration of floating free product. Groundwater monitoring was conducted for three years from 2003 until 2006. Groundwater monitoring did not detect TPH-D above MTCA Method A cleanup levels.

The Site visit conducted on July 10, 2013 showed no indications of the integrity of the Site cover being compromised, no signs of undocumented Site excavation or disturbance activities, and no visual signs of possible disturbance of the clean fill material.

The paved pathway that was proposed in 2008 has been completed. The pathway consists of a paved surface, approximately 10 feet wide, that encircles Pond A. The pathway covers the northern end of the interception trench adjacent to Pond A. There is no indication that the new pathway has compromised the interception trench, or disturbed and exposed hazardous materials contained at the Site; in fact, the pathway has probably improved the protectiveness of the remedy by providing a permanent impermeable surface.

The Restrictive Covenant for the Site was recorded and remains active and enforceable. This Restrictive Covenant prohibits activities and uses that may result in the release of contaminants contained as part of the cleanup without Ecology's approval. This Restrictive Covenant will maintain the integrity of the Site surface and the free product interception system installed during the cleanup.

Conclusions:

Soils with TPH concentrations higher than MTCA Method A cleanup levels are still present at the Site. Free product may still be present at the Site in small quantities. However, the paved asphalt and clean fill surfaces prevents human exposure to this contamination by ingestion and direct contact with soils. The Restrictive Covenant will ensure that contaminated soil and groundwater from the Site will not spread or be extracted for use and the integrity of the protective surfaces will be maintained through continuing the current use of the Site. The interception trench will ensure that contaminated groundwater from the Site will not spread and cause additional downgradient impacts.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new scientific information for the petroleum contaminants related to the Site.

3.3 New applicable state and federal laws for hazardous substances present at the Site

This cleanup is governed by Chapter 173-340 WAC. Since the completion of remedial activities, no changes have been made to the WAC affecting cleanup decisions made at the Site. Site cleanup levels determined in the CAP will not change. WAC 173-340-702(12) (c) [2001 ed.] provides that,

“A release cleaned up under the cleanup levels determined in (a) or (b) of this subsection shall not be subject to further cleanup action due solely to subsequent amendments to the provision in this chapter on cleanup levels, unless the department determines, on a case-by-case basis, that the previous cleanup action is no longer sufficiently protective of human health and the environment.”

Although contamination remains at the Site above MTCA Method A cleanup levels, the cleanup action is still protective of human health and the environment.

3.4 Current and projected Site use

The Site is currently used for recreational and industrial purposes. A portion of the Site is part of Sarge Hubbard Park, a portion is enclosed by fence and is not accessible by the general public, and a portion is used as roadway for passage of cement trucks from the adjacent ready-mix cement plant. There have been no changes in current or projected future Site or resource uses. Current uses do not appear to have a negative impact on the protectiveness of the remedy.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Soil cleanup levels have not been met at the Site; however, under WAC 173-340-740(6) (d), the cleanup action is determined to comply with cleanup standards, since the long-term integrity of the containment system is ensured and the requirements for containment technologies in WAC 173-340-360(8) have been met.
- The Restrictive Covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, the Department of Ecology has determined that the requirements of the Restrictive Covenant have been satisfactorily completed. No additional actions are required by the property owner. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the cap is maintained.

4.1 NEXT REVIEW

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

Ecology. *Enforcement Order No. DE 91TC-C444*. October 1991.

Herrera Environmental Consultants. *Superior Asphalt Groundwater Treatment System Evaluation*. July 1992.

Pacific Groundwater Group. *Final Remedial Investigation/Feasibility Study Report*. January 1996.

Pacific Groundwater Group. *Final Remedial Investigation/Feasibility Study Report*. January 1997.

Ecology. *Enforcement Order No. DE 91TC-C444 Amendment*. October 1997

Herrera Environmental Consultants. *Construction Documentation Report*. March 2003.

Herrera Environmental Consultants. *2003 Annual Groundwater Monitoring Report*. March 2004.

Herrera Environmental Consultants. *2004 Annual Groundwater Monitoring Report*. January 2005.

Herrera Environmental Consultants. *2005 Annual Groundwater Monitoring Report*. May 2006.

Ecology. *Restrictive Covenant*. April 2007.

Ecology. *Enforcement Order Completion letter*. January 2008.

Ecology. *Site Visit*. July 2013.

6.0 APPENDICIES

6.2 Site Plan

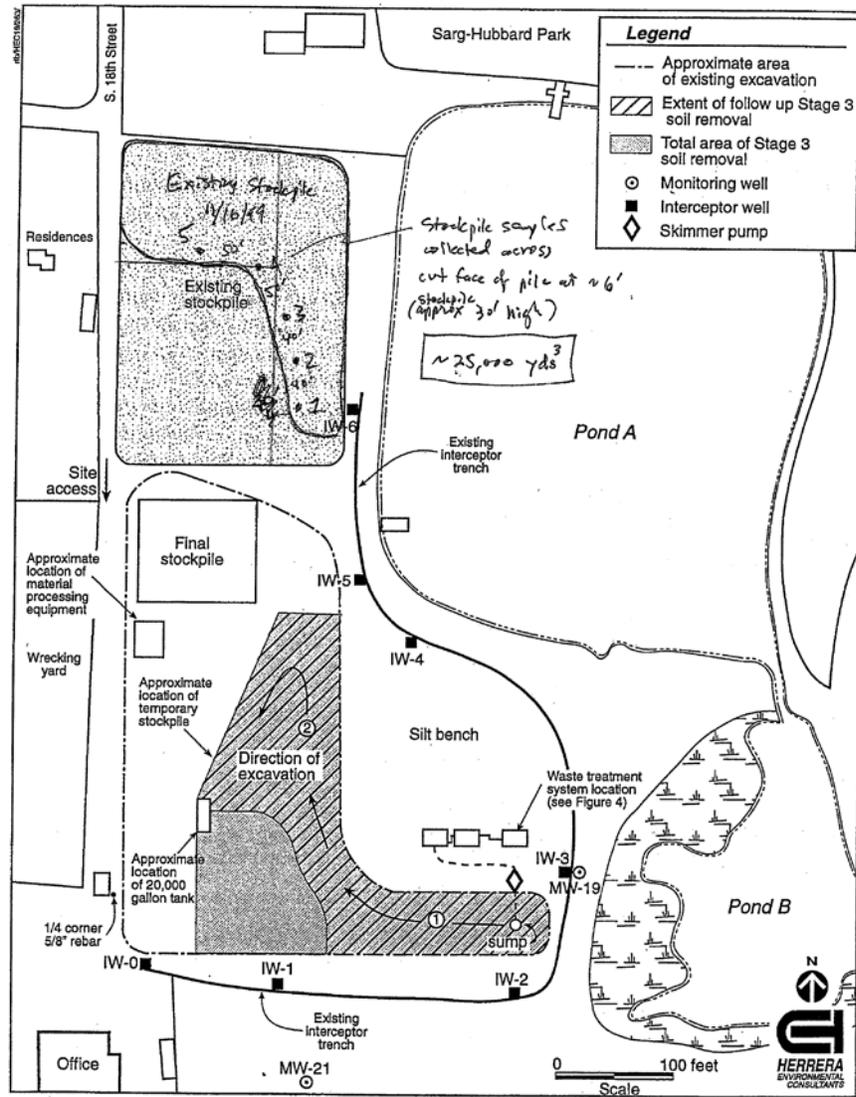


Figure 3. Follow up soil removal details.

6.3 Environmental Covenant

Return to: Flower & Andreotti
303 East "D" Street #1
Yakima, WA 98901

Document Title: Restrictive Covenants

Grantors: City of Yakima, a municipal corporation; Superior Asphalt & Concrete Co., a Washington corporation; CPM Development Corporation, a Washington corporation, successor of Central Pre-Mix Concrete Co., an inactive Washington corporation; and Yakima River Regional Greenway Foundation, a Washington non-profit corporation.

Grantees: Superior Asphalt & Concrete Co., a Washington corporation; CPM Development Corporation, a Washington corporation, successor of Central Pre-Mix Concrete Co., an inactive Washington corporation; and Yakima River Regional Greenway Foundation, a Washington non-profit corporation.

Abbreviated Legal Description: A portion of the South half of the Northeast quarter of Section 20, Township 13 North, Range 19 E.W.M. (Additional legal on pp. 1-2)

Tax Parcel Numbers: 191320-13007, 191320-13009 and 191320-13010.

RESTRICTIVE COVENANTS

RECITALS:

1. The CITY OF YAKIMA, a Washington municipal corporation, is the owner of Yakima County, Washington real property (the "Property" or "parcels") particularly described as:

ORIGINAL



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Yakima Co, WA

Parcel A: The East 470 feet of the South 700 feet of the West half of the Southwest quarter of the Northeast quarter of Section 20, Township 13 North, Range 19 E.W.M., Yakima County, Washington. (Parcel No. 191320-13007)

Parcel B: The West half of the West half of the Southwest quarter of the Southeast quarter of the Northeast quarter of Section 20, Township 13 North, Range 19 E.W.M., EXCEPT the South 165 feet thereof; AND EXCEPT the North 25 feet for County road. (Parcel No. 191320-13009)

Parcel C: The South 165 feet of the West half of the West half of the Southwest quarter of the Southwest quarter of the Northeast quarter of Section 20, Township 13 North, Range 19, E.W.M. (Parcel No. 191320-13010)

2. SUPERIOR ASPHALT & CONCRETE CO., a Washington corporation, had a reserved legal interest in the Property which SUPERIOR has, since 1991, exercised only to perform the below-described DOE remediation. SUPERIOR agrees to unconditionally release and terminate its 1985 "Reservation" for the use of Parcels "A", "B" and "C".

CENTRAL PRE-MIX COMPANY, an inactive Washington corporation, has been acquired by its successor-in-interest, CPM DEVELOPMENT CORPORATION ("CPM Corp."), which continues to use the Property for the transit of equipment and vehicles transporting CPM Corp.'s aggregate rock, concrete, sand and other materials and agrees to limit its use of Parcels "A", "B" and "C" to a thirty (30) foot roadway along the Western boundary of the three (3) parcels required for CPM Corp.'s use as equipment and vehicle access to and from Riverside Street and CPM Corp.'s business operations adjacent to and on the South side of Parcels "A", "B" and "C".

3. The YAKIMA RIVER REGIONAL GREENWAY FOUNDATION, a Washington non-profit corporation, is a beneficiary of the above-described real estate.

4. Part of the Property has been subject to environmental remediation pursuant to Washington State Department of Ecology ("DOE") Order No. 91TC-C444, as amended (the "Order").

5. Environmental remediation on the Property has been completed but DOE requires "institutional controls" be established for the Property to limit activities which may interfere with the integrity of the remediation.

6. The parties desire, by these "Restrictive Covenants", to establish the institutional controls required by DOE pursuant to the Order.



RESTRICTIVE COVENANTS

In consideration of compliance with the Order, the above Recitals and other valuable consideration, the following restrictions are placed on the Property:

1. Disturbance of the interception trench, liner, soil cover and existing, functional test wells on the Property which would allow migration of contamination is prohibited without prior notification to and approval by DOE or its successor agency.
2. The petroleum contaminated soil, if any, East of the lined interception trench on the Property shall be physically isolated by a barrier such as a fence which will be constructed by Superior and maintained by City, the property owner and Greenway, and not removed without prior notification to and approval by DOE or its successor agency.
3. The Property may not be used for any residential purpose.
4. No title or interest in the Property may be conveyed without complete provision for continued compliance with the above restrictive covenants.

These "Restrictive Covenants" shall be covenants running with the land.

DATED: ~~March~~ ^{APRIL} 20, 2007.

CITY CONTRACT NO: 2007-31
RESOLUTION NO: R-2007-59

CITY OF YAKIMA, a municipal corporation:

By: [Signature]
Title: R. A. Zais, Jr., City Manager

Attest: [Signature]
Title: Deputy City Clerk



SUPERIOR ASPHALT & CONCRETE CO.

By: [Signature]
J. BRIAN SIMS, President.

Attest: [Signature]
JOHN F BENSON, Secretary.

CPM DEVELOPMENT CORPORATION:

By: [Signature]
JEFF SCHAFFER, President.

Attest: [Signature]
Paul D Salisbury, Secretary.



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6.4 Photo Log

Photo 1: Containment Area - from the northwest



Photo 2: Pond A Seep Area - from the southeast



Photo 3: Containment Area Toward Existing Pre-Mix Plant - from the North



Photo 4: Trench and Liner Area with New Paved Walkway – from the north

