



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

Five-Year Review

Spokane Junkyard and Associated Properties Superfund Site

Spokane, Washington

September 23, 2011

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name (from CERCLIS): Spokane Junkyard and Associated Properties		
EPA ID (from CERCLIS): WAD981767296		
Region: 10	State: WA	City/County: Spokane
SITE STATUS		
NPL status: Deleted September 23, 1997		
Remediation status: Complete		
Multiple OUs?* NO	Construction completion date: 7/14/1997	
Has site been put into reuse? YES		
REVIEW STATUS		
Lead agency: EPA		
Author name: Kevin Rochlin		
Author title: RPM	Author affiliation: USEPA	
Review period:** 1/18/2011 to 8/30/2011		
Date(s) of site inspection: 8/26/2011		
Type of review: NPL-Removal only		
Review number: 3 (third)		
Triggering action: Previous Five-Year Review Report		
Triggering action date (from CERCLIS): 9/29/2006		
Due date (five years after triggering action date): 9/29/2011		
Issues: None		
Recommendations and Follow-up Actions: None		
Protectiveness Statement(s): This site remains protective of public health and the environment as a result of the removal action that was completed.		

* ["OU" refers to operable unit.]

** [Review period should correspond to the actual start and end dates of the Five-Year Review in CERCLIS.]

Five-Year Review

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Executive Summary

The EPA conducted the third Five-Year Review for the Spokane Junkyard and Associated Properties Superfund Site. This review was performed as a matter of EPA policy because a Non-Time Critical Removal Action took place at the Site in 1996, and hazardous substances remain buried at the Site. The purpose of this Five-Year Review is to ensure that the removal action remains protective of public health and the environment and is functioning as designed.

The EPA site manager visited the Site on August 26, 2011. Nothing was noted that indicated that the remedy was not functional.

Conclusions of this Five-Year Review:

The removal action remains protective. The institutional controls remain in effect and there is no indication that the removal action is not functioning as intended. There have not been any changes in any of the exposure assumptions made in the selection of the removal action. No additional response actions are needed at the Site.

Statement of Protectiveness:

This site remains protective of public health and the environment as a result of the removal action that was completed.

Next Review:

The next Five-Year Review will be conducted within five years of this review.

List of Acronyms

ARAR - applicable or relevant and appropriate requirement
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
EE/CA - Engineering Evaluation Cost Analysis
EPA - Environmental Protection Agency
NPL - National Priorities List
ppm - parts per million
PCBs - polychlorinated biphenyls

1 Introduction

Purpose of the Five-Year Review

Region 10 of the Environmental Protection Agency has conducted a Five-Year Review of the removal action at the **Spokane Junkyard and Associated Properties Superfund Site**, and prepared this report in a manner consistent with the procedures for a remedial action that are set forth in Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, and Section 300.430(f)(4)(ii) of the National Contingency Plan.

This review was performed as a matter of EPA policy because a removal action took place at the Site, and hazardous substances remain buried at the Site. No remedial action has been or is expected to be implemented at the Site. The purpose of this Five-Year Review is to ensure that the removal action remains protective of public health and the environment and is functioning as designed.

This Five-Year Review was conducted in a manner consistent with the Office of Solid Waste and Emergency Response Directive 9355.7-03B-P, 2001. The start of the removal action in August 1996 triggered the performance of a review at least once every five years, and this Five-Year Review is triggered by the signature date of the previous Five-Year Review report of September 29, 2006.

2 Site Chronology

Event	Date
Initial Site Discovery	07/16/1987
NPL listing	06/1994
Consent Order signed	Spring 1995
EE/CA	Fall 1995
Action Memorandum	08/15/1996
Non-Time Critical Removal Action	08/1996 – 12/1996
Preliminary Close-Out Report	07/14/1997
Deletion from the National Priorities List	08/23/1997
First Five-Year Review	09/21/2001
Second Five-Year Review	09/29/2006

3 Background

3.1 Site Location and Description

The Site is located in the Hillyard area, a light commercial and residential area in Spokane, Washington. The Site covers approximately 16 acres and includes a former junkyard, the former Spokane Metals Company facility, and two other parcels of land, one owned by Carl Carbon, Jr., and the other by the Wall estate.

Spokane Metals Company operated a metal recycling facility at the Site from the 1940's until the early 1980's. The metal recycling operations, which included salvaging transformers and batteries, spread out onto the other properties at the Site contaminating them with PCBs and lead. The junkyard accumulated a wide variety of surplus materials including asbestos, paint waste, and various liquid and solid wastes. Poor storage practices of these materials also resulted in Site contamination.

3.2 Site History

3.2.1 Discovery

In 1987, after an explosive fire destroyed the junkyard, the EPA commenced a removal action at the Site. Sampling conducted during the removal action revealed the presence of high concentrations of lead and PCBs on the Wall, Carbon and Spokane Metals Company properties. These properties became the focus of the removal action. During 1988 and 1989, asbestos and approximately 8,000 cubic yards of contaminated soil were removed from these properties. Following the removal action, the site was hydro seeded and fenced. Removal activities lasted from 1987 through 1989. See Figure 1 for a map of the Site.

3.2.2 Site Investigations

The Site was listed on the Superfund National Priorities List in June 1994. The EPA installed groundwater monitoring wells on the Site in the summer of 1994, and also began negotiating with a number of the companies who sent materials to the Site in an attempt to have them investigate and complete cleanup of the Site.

In the spring of 1995, three of the Site generators, Kaiser Aluminum & Chemical Corporation, Avista Corporation and Inland Power & Light Co. signed a Consent Order with the EPA in which they agreed to conduct a Site Investigation and then either a Remedial Investigation/Feasibility Study or an Engineering Evaluation/Cost Analysis depending on Site conditions. The Site Investigation was completed in the summer of 1995, and an Engineering Evaluation/Cost Analysis was completed in the fall of 1995. A brief summary of the investigation is provided in the sections which follow.

3.2.2.1 Physical Location

The Site is located between a residential area to the east and an industrial area to the west. An elementary school is located across the street from the Site. Based on the 1990 census, there are approximately 4,000 people living within 1/4 mile of the Site.

Sensitive populations in the neighborhood appear to be children. Approximately 1/3 of the neighborhood population is under the age of 18 years old.

3.2.2.2 Site Characteristics (at the time of the Investigation)

The abandoned Site was fenced by the EPA. Until July 1996, when the junk materials and buildings on-Site were removed by the potentially responsible parties, junk piles covered the junkyard and Spokane Metals Company properties. Abandoned buildings on the Site had previously been used for unauthorized activities. Frequent dangerous access by children had occurred. Junk on the Site had been set on fire resulting in a hazardous incident response from the local fire department.

The main contaminants at the Site were lead and polychlorinated biphenyls. Risks from ingestion of these are highest in children. Health effects from lead ingestion include nerve and brain damage. Ingestion of PCBs may cause cancer as well as liver and thyroid diseases.

Results of the 1995 Site Investigation showed lead in the surface soils over most of the Site. The highest concentrations found were on the Spokane Metals Company property where levels were as high as 30,000 parts per million. For comparison, the EPA's guidance suggests that 400 ppm is a conservative standard for residential areas. The lead concentrations were mainly limited to the top 2 feet of soil.

Results of the 1995 Site Investigation showed PCBs sporadically in the surface soil throughout the Site. All samples were less than 250 ppm and most were less than 50 ppm. In one location PCB contamination was found as deep as 4 feet.

Groundwater was sampled in the summer of 1994 and the summer of 1995. Groundwater was found at approximately 150 feet below the ground surface. No Site related contaminants were found in the groundwater.

3.2.3 Volumes of Contaminants

Based on the results of the Engineering Evaluation/Cost Analysis, approximately 12,000 cubic yards of Site material exceed the selected cleanup level of 1 ppm PCBs and 360 ppm for lead (the cleanup level for the Site is based on the Washington Model Toxic Control Act, an applicable or relevant and appropriate requirement or "ARAR" for the Site). These levels were selected to be protective of public health and the environment under a residential scenario.

4 Removal Action Implementation

The EPA signed an Action Memorandum on August 15, 1996. A Non-Time Critical Removal Action as described in the action memorandum was performed under an administrative order on consent by potentially responsible parties for the Site between August and December.

Contaminated soil on the property which exceeded 1 ppm for PCBs and 360 ppm for lead was excavated.

Excavated soil with lead exceeding 5,000 ppm lead (considered to be the "worst material") was treated through stabilization to prevent it from leaching into the ground, and to give it a concrete-like hardness.

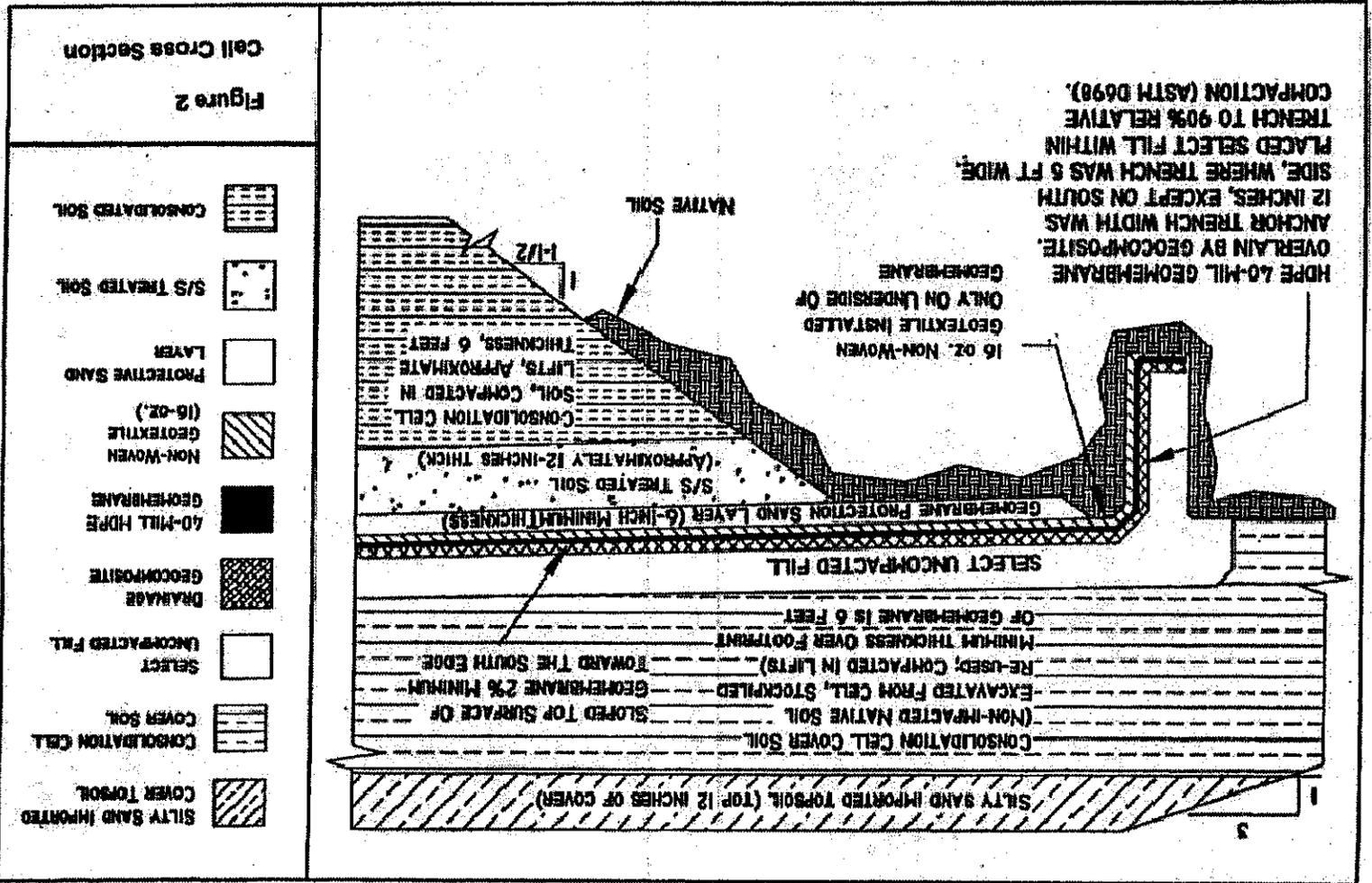
Both the treated and untreated soils were consolidated in a cell (an engineered hole) on the Spokane Metals Company property. The treated material was placed on top of the untreated soil to act as a barrier in the unlikely event that someone was able to dig down to the contaminated material. The cell was covered by a geomembrane and 6 feet of clean soil fill. Figure 1 shows the location of the containment area, and Figure 2 shows a schematic of the containment cell. Following the completion of the removal the entire site was graded and planted in native grass seed.

Approximately 10,000 tons of soil were excavated and consolidated without treatment. A total of 2,600 tons of soil was treated.

Soil sampling conducted after the remedy was completed confirmed that the cleanup was successful and the Site was left below residential standards for lead and PCBs. The entire Site was cleaned up to residential standards to allow redevelopment.

A post removal risk assessment determined that the Site risks were below the 10^{-4} threshold for a remedial action. Therefore, no record of decision or remedial action was required, and the Site was deleted from the National Priorities List September 23, 1997.

Property use restrictions were placed on the Spokane Metals Company property to prevent activities which could disturb the containment cell. At the time of removal action completion, yearly inspections of the cell were required because there was no Site use. In addition, 5 year reviews were required because waste was left at the Site.



4.1 Current Status

Following completion of Site cleanup, the entire Site was purchased by the Spokane Youth Sports Association for use as sports fields. The development of the Site was coordinated with the EPA to ensure that the containment cell was protected from uses that would jeopardize its integrity. The area containing the containment cell was paved for use as a parking lot in 2000. The sports fields were completed in 2002. A representative of the potentially responsible parties performs a yearly inspection of the paving over the containment cell. The inspection reports for 2006 through 2010 showed that everything was functioning as intended, and no maintenance has been required.

5 Progress Since the Last Five-Year Review

The Site was cleaned up to residential standards. All removal action objectives were met. The containment cell has been paved, which prevents any potential excavation of the area. The potentially responsible parties under a Consent Decree with the EPA are required to perform Operation and Maintenance of the containment cell. In addition, they were required to place proprietary controls on the deed to describe use restrictions on the containment cell area. A title report done in December 2010 confirmed that these controls remain in place. The protectiveness statement of the previous Five-Year Review was that the remedy at the site remains protective of human health and the environment.

6 Summary of the Five Review

The Five-Year Policy Review was conducted in a manner consistent with the procedures in OSWER Directive 9355.7-02, Structure and Components of Five-Year Reviews. Activities in this review consisted of:

- Review of site-related documents and agreements
- Review of Site deed and restrictive covenants
- Site visit and inspection
- Community relations activities
- Preparation of the Five-Year Review report

6.1 Documents reviewed for this report

Action Memorandum, Spokane Junkyard and Associated Properties, EPA, August 1996.

Construction Completion Report, Spokane Junkyard and Associated Properties, EPA, July 1997.

Engineering Evaluation Cost Analysis, Spokane Junkyard and Associated Properties, Alta Geosciences, December 1995.

Operation and Maintenance Plan, Spokane Junkyard and Associated Properties, Alta Geosciences, May 1997.

Site Deed and Chain of Title Guarantee.

6.2 Site Conditions

6.2.1 Site Visit - August 26, 2011

The EPA site manager visited the Site on August 26, 2011. The visit included a meeting with Pam Kish of Avista Corporation and Philip Helean the executive director of Spokane Youth Sports Association.

The Site has been developed as the Andrew Rypien Sports Complex. The containment cell location has been paved, and is used as the parking lot for the complex. One section on the southern end of the Site is now used as a community garden. The remainder of the Site has been developed into sports fields. The paving on the parking lot is still sound. However, the parking lot has a number of long, grass-filled cracks. The cracks are about an inch wide and run both north/south and east/west. The cracks do not impact the containment cell; however they could shorten the life of the asphalt requiring the significant cost of replacement prior to the end of the normal design life. The site manager informed Mr. Helean that the cracks should be cleaned and filled with asphalt crack filler to prolong the life of the lot. The swale draining the lot was in good shape. No rills or other erosion was present. Nothing was noted that indicated that the remedy was not functional.

6.2.2 Community Relations

Community interest was high while the site was being cleaned up, as the Site was an eyesore for years. Once the Site was cleaned, community interest was focused on redevelopment. No fact sheets have been sent out since the completion of the removal action. The Site manager has not received any calls from the public concerning the Site.

A notice for the Five-Year Review was placed in the Spokane Review, the daily paper in Spokane in February 2011. No contacts were made with the EPA as a result of the notice.

A notice of the completion of this Five-Year Review will be placed in the Spokane Review, the daily paper in Spokane.

7 Technical Assessment of the Site

The following conclusions support the determination that the removal action is protective of human health and the environment:

Question A: Is the removal action functioning as intended in the decision document?

Yes. The removal action was completed and is functioning as intended. All contaminated soil has been contained in a cell under 6 feet of fill. The Site has been cleaned up to residential standards and has been redeveloped as a sports complex. Residential cleanup is consistent with this Site use. An institutional control in the form of a deed restriction was recorded which identifies the location of the residual contamination in the buried containment cell and outlines the use restrictions related to the containment cell. The cell is now paved for use as a parking lot which is consistent with the allowed usage. The deed restriction is functioning as intended and there have been no failures or issues, and no changes or additional controls are necessary. There are no deficiencies in the cleanup.

Question B: Are the exposure assumptions, toxicity data, and cleanup levels used at the time of the removal action still valid?

Yes. The assumptions made in the removal action remain the same. There have been no changes in the standards, exposure pathways, toxicity and contaminant characteristics, or risk assessment methodologies since the removal action was selected that would call into question the protectiveness of the cleanup.

Question C: Has any other information come to light that could call into question the protectiveness of the removal action?

No. There have been no changes in land use and no additional information has been identified that would call into question the protectiveness of the removal action.

Summary of Technical Assessment:

The removal action remains protective. The institutional controls remain in effect and there is no indication that the removal action is not functioning as intended. There have not been any changes in any of the exposure assumptions made in the selection of the removal action. No additional response actions are needed at the Site. The deed for the property needs to be inspected periodically to ensure that the notice remains in place and five-year reviews should continue to ensure that Site use remains the same.

8 Issues

None.

9 Recommendations and Follow-up Actions

No issues have been identified that warrant follow-up and no additional response actions are needed at the Site.

10 Statement of Protectiveness

This site remains protective of public health and the environment as a result of the removal action that was completed.

11 Next Review

The next Five-Year Review will be conducted within five years of this review.

9/23/2011

Date

A handwritten signature in blue ink, appearing to read "Daniel D. Opalski". The signature is written in a cursive style with a horizontal line underneath.

Daniel D. Opalski, Director
Office of Environmental Cleanup