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November 1997

EPA Superfund Explanation of Significant Difference for the Record of Decision:

Toftdahl Drums, Brush Prairie, WA 6/17/1997

EXPLANATION OF SIGNIFICANT DIFFERENCES
TOFTDAHL DRUMS, BRUSH PRAIRIE, CLARK COUNTY, WASHINGTON

I. Introduction

Site Name and Location

Toftdahl Drums
Brush Prairie, Clark County, Washington

Lead and Support Agency

U.S. Environmental Protection Agency (EPA) - Lead Agency for the Record of Decision (ROD) and Explanation of Significant Differences (ESD)
Washington State Department of Ecology (Ecology) - Support Agency for ROD and ESD; lead agency for post-ROD site work

Statutory Authority

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 117(c) and the National Oil and Hazardous Substances Contingency Plan (NCP), Section 300.435(c)(2)(I).

Purpose

The purpose of this Explanation of Significant Differences (ESD) is to discontinue the long-term ground water monitoring at the Toftdahl Drums site. All Remedial Investigation and post-ROD data collected by Ecology demonstrate there is no ground water contamination problem associated with this site. Continued groundwater monitoring is not needed to ensure protection of human health and the environment.

Administrative Record

This ESD will become part of a new Administrative Record for the Toftdahl Drum site. The Administrative Record is located at the EPA Region 10 office in the Superfund Records Center, 7th Floor, 1200 6th Avenue, Seattle, Washington. In addition, a copy of the Administrative Record is located at the Information Repository in the Battle Ground Library, 12 West Main Street, Battle Ground, WA 98604-9449, (360) 687-2322.

II. Summary of Site History, Contamination Problems, Selected Remedy and Post-ROD Sampling Results.

The Toftdahl Drum site is located four miles east-southeast of Battle Ground, Washington in a rural residential area. In the mid- 1980's when the ROD was written, approximately 14 residences were located in a 90 acre area. These residences obtained their water from private wells that were generally screened at least 70 feet below the ground surface. In the 10 years since the ROD was prepared, many more residences have been built in the general area and all residences now have access to city water.

In the early 1970's approximately 200 drums containing unknown quantities and types of wastes were cleaned for resale at the Toftdahl property. Approximately 50 of these drums containing residual industrial wastes were buried on-site. In 1978 or 1982, approximately 38 drums were removed from the site by Mr. Toftdahl.

Ecology was first notified about the possible presence of buried drums in 1982. Various site investigations were undertaken by Ecology and EPA contractors in 1983 and 1984. As a result of these investigations and uncertainty about the degree of contamination in soil and ground water, the Toftdahl Drum site was proposed to the National Priorities List (NPL) on October 15, 1984. The listing was made final on June 10, 1986.

An Initial Remedial Measure (IRM) was conducted by Ecology's contractor in 1985. Potential drum burial locations were identified and explored. All drums and visibly contaminated soils (primarily paint chips) were collected and disposed off-site. Subsequent analysis demonstrated that none of the materials were RCRA characteristic wastes.

The Remedial Investigation was begun in December 1985 and was completed in July 1986. In addition to the pre- and post-IRM soil analysis, the RI included two years of ground water monitoring as well as surface water monitoring. The monitoring program sampled both newly installed monitoring wells and nearby private residential wells.

As a result of the RI, a ROD was signed on September 30, 1986. The remedy selected in the ROD was no further action to remediate the site because previous Ecology measures had removed the drums and all significant quantities of wastes from the site. Moreover, the groundwater and surface water monitoring had demonstrated that there were no current threats from the Toftdahl Drum site. However, as a precautionary measure, Ecology asked that the ROD include a requirement for Ecology to sample and analyze ground water samples from existing monitoring wells and private residential wells semi-annually for five years, and then annually for ten additional years, subject to funding by the Washington State Legislature.

The Toftdahl Drum site was deleted from the NPL on December 23, 1988. No five year reviews were required as part of the ROD because no land nor ground water use restrictions were required as part of the ROD. In addition, the ROD was signed prior to SARA.

As required by the ROD, Ecology has conducted routine ground water monitoring at the site since 1987, primarily at the domestic water supply taps. Ground water monitoring was conducted for all priority pollutants semi-annually until April 1991. In April 1993 the analysis of volatile organics ceased because none had been detected in any of the samples since the RI, except for one round that detected acetone, a likely laboratory contaminant. Since April 1990, Ecology's sampling has consisted of annual samples from four domestic water supply taps that are fed from private wells located near the site. One of these wells (the Boone well) is upgradient and three of the wells are downgradient of the site. Table 1 summarizes the sampling results from 1988 through June 1996.

Copper and zinc are the only analytes that have been regularly detected in these post-ROD samples. Lead and mercury have occasionally been detected. All concentrations have been below the drinking water standards in effect at the time of the ROD. In addition, all concentrations are below the State of Washington's primary and secondary maximum contaminant levels, and the Federal action levels for lead and copper that have been promulgated after the ROD. The metals have been detected in the same residential water supplies both upgradient and downgradient from the site for over 10 years and are believed to be related to well construction and plumbing materials, not site contamination.

Description of the Significant Difference and the Basis for the Difference

Based on Ecology's sampling results and Ecology's request, the ROD requirement for precautionary monitoring for 15 years after the date of the ROD has been changed to precautionary monitoring until 1996, or approximately 10 years after the date of the ROD. This change is based on over 10 years of monitoring data which indicate that no ground water contamination has been detected in wells potentially impacted by the Toftdahl Drum site. In addition, given the low levels of contamination that were found at the site in the mid-1980's, it is unlikely that any source of contamination remains at the site. Accordingly, no further ground-water monitoring will be conducted at the site. Ecology will ensure that all monitoring wells are properly abandoned.

Support Agency Comments

Ecology has requested this change to the selected remedy. Ecology has reviewed this ESD and their suggested changes have been incorporated.

Statutory Determinations

Based on the monitoring data collected since the cleanup action was performed in 1985, EPA has confirmed that hazardous substances at the site have been removed and that the site is not contaminating nearby ground water. Therefore, EPA has determined that discontinuing monitoring at this time is consistent with CERCLA and applicable state law because the site does not pose a significant threat to public health or the environment and no further response actions are necessary or appropriate.

Public Participation Activities

EPA will publish a notice of availability and a brief description of this ESD in the local newspaper, The Columbian. Ecology will publish a notice of this ESD in the Toxics Cleanup Program's Site Register. Also, Ecology staff have discussed ceasing ground water monitoring with the local residents and there have been no objections.

for Randall Smith, Director
Office of Environmental Cleanup
EPA, Region 10

6/17/97
Date

Table 1: Summary of Sampling Results from September 1988 to June 1996

	Boone	Bedoff	Kyle	Smith	Homala	MCL's
September 12, 1988						
Copper	76	121	42	--	--	1000**
Zinc	389	6	52	--	--	5000**
October 17, 1989						
Copper	50	50	30	--	ND	1000**
Zinc	290	ND	20	--	20	5000**
Mercury	0.06 U	0.06 U	0.1 B	--	0.16 B	2.0*
April 11, 1990						
Copper	77.6	37.6	46.1	46.1	3.3 J	1000**
Zinc	160	5.0 U	31 B	22 JB	80.3	5000**
Mercury	0.05 J	0.08 J	0.04 J	0.02 U	0.04 J	2.0*
October 23, 1990						
Copper	83.9	45.9	25.8	28.4	2.0 U	1000**
Zinc	480	6.2 JB	12 JB	15 JB	34.0	5000**
Chromium	6 J	5.0 U	5.0 U	5.0 U	5.0 U	50*
Lead	1.1 J	1.0 U	1.0 U	1.0 U	1.5 J	50*
April 23, 1991						
Copper	120	58.4	64.1	61.9	2.0 U	1000**
Zinc	178	5.5 J	19 J	22	64.3	5000**
Lead	1.2 J	20 U	2.4 J	NAR	NAR	50*
April 14, 1992						
Copper	50.5	48.8	45.1	45.0	7.4 P	1000**
Zinc	112	4.0 U	26	25	55.4	5000**
Lead	1.0 U	2.7	1.0 U	1.0 U	1.0 U	50*
April 6, 1993						
Copper	41.5	32.4	61.6	64.5	4.0 P	1000**
Zinc	91.8 B	4.0 J	37.4 B	38.4 B	56.2 B	5000**
Lead	20 U	20 U	20 U	20 U	20 U	50*
June 21, 1994						
Copper	54.8	40 P	37 P	42.1	6 P	1000**
Zinc	86.8	4.0 U	22 P	23 P	17 P	5000**
Lead	1.9 P	1.0 U	2.1 P	1.0 U	1.0 P	50*
July 17, 1995						
Copper	41.7 P	33.4 P	31.9 P	34.8 P	12 P	1000**
Zinc	47.3	4.0 U	19 P	21 P	22 P	5000**
Lead	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	50*
June 24, 1996						
Copper	37.4	58.1	32.8	28	21	1000**
Zinc	46.2	13.0	21	19	26	5000**
Lead	2.0 B	4.1 B	1.8 B	1.6 B	1.8 B	50*

All concentrations are in ug/L.
"Smith" samples are duplicated "Kyle" samples.

--: Not analyzed J: Estimated Value ND: Not Detected

U: The compound was not detected at or above the listed numerical value.

B: Analyte was also found in an analytical blank.

P: Analyte detected above the instrument detection limit but below the minimum quantitation limit.

*: Primary Maximum Contaminant Levels (MCL) are based on chronic and acute health effects.

**: Secondary Maximum Contaminant Levels (MCL) are based on factors such as taste, odor or color.

The primary MCL's listed in this table are those MCLs in effect in 1990. Since then, EPA has established an action level for lead of 15 ppb (ug/L) and an action level for copper of 1300 ppb (ug/L) in lieu of the Federal MCLs.