

# IDAHO POLE SUPERFUND SITE

## Chronology

### FACILITY OVERVIEW

**1945 – 1997:** Idaho Pole Company (IPC) operated a wood treating facility. Operations included using creosote to preserve wood. In 1952, pentachlorophenol (PCP) in carrier oil was used. The wood treating infrastructure was located south of I-90. These operations resulted in the release of PCP, polynuclear aromatic hydrocarbons (PAHs), polychlorinated dibenzo-p-dioxins, and polychlorinated dibenzo-furans to soil and groundwater both north and south of I-90.

**1978:** Initial discovery of problem. MT Department of Fish, Wildlife and Parks notified MT Department of Environmental Quality (DEQ) of a suspected release of oily wood treating fluid. An oily discharge was noted by Montana Department of Environmental Quality (DEQ) in ditches near IPC and near Rocky Creek. DEQ issues a compliance order. Facility was closed in 1997.

### CLEANUP OVERVIEW – SOILS AND GROUNDWATER

**1986:** Site soils and groundwater were listed on the Superfund National Priorities List (NPL).

**1992:** EPA and DEQ established one Operable Unit (OU) that included both soil and groundwater remediation and specified cleanup actions in a Record of Decision (ROD). The ROD established cleanup levels for the contaminants of concern (COC) and outlined the selected remedy.

**Selected Remedy from the ROD:** Includes components for soil and groundwater treatment, plus institutional controls (ICs):

#### Soils –

- Excavation and surface land treatment of ~19,000 cubic yards of contaminated soils from: 1) pasture area north of I-90; 2) area between Cedar St. & I-90; and 3) former roundhouse.
- Hot water/steam flushing of soils underlying facility and I-90.
- Separation and disposal of oily wood treating fluid extracted from soils.
- Closure of onsite treatment units.

#### Groundwater –

- Groundwater extraction wells, biological treatment, and return of treated water to the aquifer to enhance *in situ* biological degradation and to control potential contaminant migration. (Cleanup estimate: 10-15 yrs)
- Treatment of contaminated residential wells exceeding MCLs or risk-based concentrations, at the point of distribution, in addition to ICs preventing new access to contaminated groundwater.
- Continued residential and groundwater monitoring.

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## ICs –

- Fencing and posting of areas where active remediation occurs.
- Prevention of domestic or commercial well drilling in the contaminated groundwater plume.
- Land use and deed restrictions for the closed land treatment units.

## CLEANUP LEVELS FROM TABLE 13 OF THE ROD

	Constituent	Cleanup Level	Basis
Soil and Sediments (mg/kg)	PCP	48	Risk
	Total B2 PAHs	15	Risk
	Total D PAHs	145	Hazard quotient
	TCDD TE*	0.001	Risk
Groundwater (µg/L)	PCP	1.0	MCL
	B2 PAHs:		
	Benzo(a)pyrene	0.2	MCL
	Benz(a)anthracene	0.1	Proposed MCL
	Benzo(b)fluoranthene	0.2	Proposed MCL
	Benzo(k)fluoranthene	0.2	Proposed MCL
	Chrysene	0.2	Proposed MCL
	Dibenz(a,h)anthracene	0.3	Proposed MCL
	Indeno(1,2,3-CD)pyrene	0.4	Proposed MCL
D PAHs	146	Hazard quotient	
2,3,7,8-TCDD (Dioxin)	3.0 x 10 <sup>-5</sup>	MCL	

*mg/kg = milligrams per kilogram; µg/L = micrograms per liter*  
*\*refers to sum of toxicity equivalents for individual polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs), expressed as concentration of 2,3,7,8-tetrachlorophenol dibenzo-p-dioxin (TCDD)*

**1995:** Soil excavation and treatment commenced. Accessible contaminated soils were excavated and treated in an on-site land treatment unit (LTU).

**1996:** Site-wide groundwater monitoring is implemented.

**1996:** The selected remedy outlined in the ROD was modified in Explanation of Significant Differences:

- Ambient temperature water used to flush inaccessible areas under the pole plant facility and I-90 instead of hot water/steam.

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- Excavation and treatment of additional soils from under Cedar Street and the pole plant facility to cleanup levels in the ROD.
- No excavation of sediments in the Substation Ditch because they do not exceed cleanup levels.
- Land Treatment Unit to be located in SE corner of the site and to receive all excavated soil. Once PCP and PAH cleanup levels have been reached, the soil will be used for backfill on-site.
- Granular activated carbon treatment will be used in place of biological treatment.
- Groundwater treatment system will be designed to enhance *in-situ* biological degradation and to control contaminant migration in a phased manner. Phase I install: Plant and areas south of I-90. Phase II: Evaluation of Phase I, adjustments, and optimization of groundwater remediation.
- ROD cleanup objectives remain unchanged.

**1997:** Wood treating operations stopped and Idaho Pole Facility closed. Groundwater Remediation System (GRS) extraction/injection treatment began operation. A downgradient product recovery trench is used to recover oil from under I-90.

**1998:** A second Explanation of Significant Differences was issued after active wood treating operations were terminated in 1997. This allowed areas previously inaccessible for soil remediation to now be remediated (excavated and treated).

**1999:** Additional remedial design started and completed. Additional remedial action completed (Site remediation ongoing).

**2000:** First Five-Year Review completed. LTU operations cease when ROD performance standards for PCP and PAHs were determined to have been met.

**2001:** Controlled Groundwater Area established.

**2002:** Land Treatment Unit (LTU) for soils decommissioned (~24,100 cubic yards of contaminated soils treated). Treated soil placed on site and covered with 12 inches of clean fill to prevent direct contact (Treated Soils Area - TSA)

**2003:** Soils component remedial action completed.

**2005:** Second Five-Year Review completed.

**2009:** Approval to shut off Pressure Plant Extraction Gallery (PPEG) component of groundwater extraction.

**2010:** Notice of Institutional Controls filed with Gallatin County Clerk & Recorder. Final Remediation System Evaluation Report completed. Approval to modify groundwater monitoring. Modification to performance monitoring for the groundwater extraction/injection system remedy.

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**2010:** Third Five-Year Review completed. Issues/Recommendations Identified: 1) All IPC property south of I-90 originally included in Controlled Groundwater Area (CGA) boundary/Evaluate potential to reduce extent of some portions of the CGA. 2) Contaminant plume delineation needs confirmation/Update the Groundwater Conceptual Model. 3) Soil Institutional Controls are not in place/File proprietary Institutional Control with Gallatin County Clerk & Recorder and provide signed copy to the agencies.

**2011 & 2012:** Letters sent to EPA from Gallatin City-County Board of Health expressing concerns: 1) status of petroleum hydrocarbons (carrier oil) in the subsurface; 2) status of Rocky Creek water and sediments; and 3) groundwater contamination north and east of Rocky Creek.

**2015:** Fourth Five-Year Review completed. Issues/Recommendations Identified: 1) Potential residual source material in the area of the Bark Fill Extraction Gallery (BFEG)/Perform pilot testing to remediate residual source material. 2) Dioxin analysis of groundwater/Sample shallow aquifer for dioxin analysis.

**2015:** Phase I groundwater in-situ enhanced aerobic degradation pilot project in the Bark Fill Injection Gallery (BFIG) commences.

**2016:** Temporary shutdown of Groundwater Remedy System. Phase II groundwater in-situ enhanced aerobic degradation pilot project in the Bark Fill Injection Gallery (BFIG).

**2018:** Groundwater Remedy System decommissioned. Surface soil sampling conducted for dioxins.

**2019:** Addendum to Fourth (2015) Five-Year Report issued. Public notice of EPA intent to delete the soil and subsurface soil component of the IPC Superfund site.

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NOTE: INFORMATION USED TO COMPILE THIS CHRONOLOGY WAS PREPARED FROM EPA DOCUMENTS AND REPORTS CONTAINED ON THE IPC SUPERFUND WEBSITE:

<https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0800379>

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