Land Quality

Environmental Cleanup

Environmental Cleanup Site Information (ECSI) Database
Site Summary Report - Details for Site ID 49, Gould Inc./NL Industries Inc.

This report shows data entered as of December 21, 2015 at 3:14:04 PM

This report contains site details, organized into the following sections: 1) Site Photos (appears only if the site has photos); 2) General Site Information; 3) Site Characteristics; 4) Substance Contamination Information; 5) Investigative, Remedial and Administrative Actions; and 6) Site Environmental Controls (i.e., institutional or engineering controls; appears only if DEQ has applied one or more such controls to the site). A key to certain acronyms and terms used in the report appears at the bottom of the page.

Note: DEQ may have posted online documents related to this site. If so, they would be available for viewing or downloading on ECSI Summary Page

Go to DEQ's Facility Profiler to see a site map as well is information on what other DEQ programs may be active at this site.

General Site Information

Site ID: 49	Site Name: Gould Inc./NL Industries Inc.	CERCLIS No: 095003687	
Address:	5909 NW 61st Ave. Portland 97210		
	County: Multnomah	Region: Northwest	
Other location information:			
Investigation Status:	Listed on CRL or Inventory		
	Brownfield Site: No NPL Site: No	Orphan Site: No	Study Area: No
Property:	Twnshp/Range/Sect: 1N , 1W , 13	Tax Lots: 35	
	Latitude: 45.5687 deg. Longitude: -122.7488 deg.	Site Size: 9.2 acres	
Other Site Names:	Portland Harbor Sediment Study National Lead Morris P. Irk & Sons		

Site Characteristics

General Site Description:	
Site History:	
Contamination Information:	(3/20/2003 JAK/SRS) Operations consisted of lead-acid battery recycling, secondary lead smelting and refining, and lead oxide production. An estimated 86,900 tons of battery casings were disposed of on-site and on adjacent properties. About 6,570,000 gallons of waste battery acid was discharged to East Doane Lake. EPA added the site to the National Priorities List (NPL) in September 1983. A Remedial Investigation and Feasibility Study (RI/FS) was conducted at the site from 1985 to

	1988. EPA issued a Record of Decision (ROD) for the Soils Operable Unit at the site in March 1988, requiring the excavation of all buried battery casings and matte, treatment of battery casings to remove and recycle lead, and treatment of the contaminated soils, sediment, and matte to reduce the mobility of lead. The contamination extended to the adjacent Rhone-Poulenc property (ECSI #155). Rhone-Poulenc's former operations (the manufacture, formulation, and distribution of pesticide products) resulted in organic contamination of soil and groundwater on both the Rhone-Poulenc and Gould sites. DEQ coordinated the investigation and cleanup of Rhone-Poulenc with that of Gould.
Manner and Time of Release:	On-site disposal. Batteries were crushed and processed. Residuals were dumped into Doane Lake; some casings also were buried on the adjacent Rhone-Poulenc property. Time of release: Between 1949 and 1981.
Hazardous Substances/Waste Types:	lead, arsenic, cadmium, sulfuric acid, zinc, antimony
Pathways:	Air, surface water, groundwater, soil were contaminated. The primary pathways of contamination considered during the remedial action were direct contact and the air pathway. Surface water and groundwater did not appear to be impacted above health-based levels. Sediments in East Doane Lake contained lead (from Gould) and other contamination (in all likelihood from surrounding facilities).
Environmental/Health Threats:	The long-term environmental threats from this site were localized. When the smelter was operational (pre-1980), the environmental threat was greatest. The remedy was designed to stabilize and bind the lead contamination so that it could be disposed of on-site in a protective manner.
Status of Investigative or Remedial Action:	(3/20/2003 JAK/SRS) EPA issued Unilateral Administrative Orders to seven companies (PRPs) in January 1992 requiring implementation of remedial actions specified in the ROD. Remedial actions were initiated at the site in June 1993. An estimated 24,000 tons of battery casings were excavated and processed through the separation/treatment plant, with 244 tons of plastic and 88 tons of lead recycled. Contaminated soils and matte were stabilized, producing 20,000 cubic-yard blocks, which were stored at the site. Several problems were encountered with the battery separation/treatment process: despite several modifications to this process, it was determined that it was not efficient or cost-effective and that only limited quantities of processed materials were recyclable. In addition, the volume of battery casings to be excavated and processed was overestimated in the ROD. In May 1994, EPA allowed the PRPs to suspend operations and evaluate alternative remedial actions. After conducting a focused Feasibility Study, the PRPs submitted a proposed alternative cleanup plan to EPA in October 1995. EPA prepared a Proposed ROD Amendment, which went out for public comment April 1 - May 31, 1996. Major components of the alternative cleanup plan included construction of an 8.5-acre on-site containment facility (OCF) to RCRA (40 CFR 264, Subpart N) standards, excavation of remaining battery casings on the Gould site, excavation of contaminated sediment in East Doane Lake, stabilization of lead fines, consolidation of approximately 60,000 cubic yards of excavated and previously stockpiled material in the OCF, filling of East Doane Lake, wetlands mitigation measures, institutional controls, and groundwater monitoring. The PRPs initiated pre-design in November 1996. EPA issued the Amended Record of Decision on June 3, 1997. EPA issued a Unilateral Order to the RP Group in July 1997, requiring the design and implementation of an early remedial action for the East Doane Lake portion of the remedy on a time-critical path. EPA filed a Consent Decree in March 1998 addressing the design and implementation of the amended remedy. The implementation of the early remedial action for East Doane Lake was conducted from June to October 1998. Approximately 8000 cubic yards of contaminated sediment were excavated from East Doane Lake and stockpiled on-site for subsequent disposal in the OCF. The remedial design activities related to the OCF construction were conducted from December 1997 to April 1999. Construction activities were initiated in June 1999 and continued until early December 1999, when unfavorable weather precluded completion of the OCF. Construction of the OCF was approximately 90% complete at the time. Construction resumed in May 2000 and was completed in September 2000.

Approximately 77,000 cubic yards of contaminated material was placed into the OCF, including the 20,000 cubic yard blocks. Operation and maintenance of the OCF has been on-going, including the conductance of quarterly inspections and groundwater monitoring. EPA delisted the Gould site from the NPL in September 2002. (1/28/10 MDK/CU&ER) Site is in O&M with quarterly inspections made of the onsite containment landfill cap and leachate collection system. No leachate has collected for the past two plus years. No significant issues have been identified in the past year.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ARSENIC	Groundwater	Up to 0.61 ppm	
ARSENIC	Soil	Up to 63 ppm	
CADMIUM	Soil	Up to 12 ppm	
CHROMIUM	Groundwater	Up to 0.017 ppm	
CHROMIUM	Soil	Up to 290 ppm	
LEAD	Air	To 5.2 microg/cu.m	
LEAD	Groundwater	Up to 0.29 ppm	
LEAD	Sediment	Up to 12,000 ppm	
LEAD	Soil	Up to 20,000 ppm	
LEAD	Surface Water	Up to 0.28 ppm	
SULFURIC ACID	Groundwater	pH 5.7	
SULFURIC ACID	Soil	pH 4.7	
SULFURIC ACID	Surface Water	pH 6.3	
ZINC	Groundwater	Up to 6.9 ppm	
ZINC	Soil	Up to 10,000 ppm	
ZINC	Surface Water	Up to 0.041 ppm	

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
OPERATION & MAINTENANCE (Primary Action)	09/30/2000		David Lacey	SRS

Site Environmental Controls

Control Description	Begin Date	End Date	Last Reviewed By	Last Review Date
Cap, engineered	09/01/2000		Jill Kiernan	12/01/2004

Comments: A RCRA cap was put in place. Quarterly inspections, maintenance, and groundwater monitoring are being performed by the RPs.

Key to Certain Acronyms and Terms in this Report:

CERCLIS No.: The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
Region: DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
NPL Site: Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
Orphan Site: Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
Study Area: Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
Pathways: A description of human or environmental resources that site contamination could affect.
Lead Pgm: This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting David Lacey at the Northwest

regional office or via email at lacey.david@deq.state.or.us. If this does not work, you may contact Gil Wistar at (503) 229-5512, or via email at wistar.gil@deq.state.or.us or contact the Northwest regional office.

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For more information about **ECSI** call Gil Wistar at 503-229-5512 or email.

For more information about **DEQ's Land Quality programs**, visit the DEQ contact page.

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