Chehalis Power LP Generation Facility

SHARP Report — Part 1 of 2



SHARP first SHARP		v2024.04.29	Ecology I	nfo
 SHARP rating 	Low		ERTS	624609
 SHARP date 	03/27/2025		CSID	11776
 EJFlagged? 	🛇 - No Override		FSID	3336951
 LD confidence level 	low		VCP	SW1246
 Cleanup milestone 	cleanup implementation		UST ID	none
SHARPster	Joe Kasperski		LUST ID	none

This section is blank if this is the first SHARP

SHARP Media	Scores	Confidence	Additional Factors	
Indoor air	D4	high	multiple chemical types	\otimes
Groundwater	D4	high	risk to off-site people	\otimes
Surface water	D4	high	climate change impacts	\otimes
Sediment	D4	high	plant/animal tissue data	\otimes
Soil	C4	high		

Location and land use info		
1813 Bishop Road, Chehalis, Lewis County, 98532		
Primary parcel	017774006005	
Land use	industrial	
Responsible unit	SWRO	

Sources reviewed

Ecology, No Further Action Likely at the Following Site: Chehalis Power LP Generation Facility, December 4, 2024. Hill West Environmental, Chehalis Power Plant Transformer Spills Additional SiteCharacterization Report, August 16, 2024. Ecology, Further Action at the following Site: Chehalis Power LP Generation Facility, November 23, 2023.

Hill West Environmental, Chehalis Power Plant Transformer Spill Additional SiteCharacterization Work Plan, March 8, 2023.

Ecology, Further Action at the following Site: Chehalis Power LP Generation Facility, June 26, 2017.

KTA Associates, Inc (KTA), Cleanup Action Report, July 6, 2016.

Ecology, Further Action at the following Site: Chehalis Power LP Generation Facility, November 20, 2012.

KTA, Terrestrial Ecological Evaluation Form, August 10, 2012.



Primary census tract	Associated census tracts
53041971400	SHARP it

Local demographics comments

no comments

Source/source area description

On January 20, 2011, generation step-up transformer catastrophically failed resulting in the release of an estimated 2,000 gallons of non-polychlorinated biphenyl (non-PCB) mineral oil. On November 22, 2013, a second GSU transformer (GSU#3) catastrophically failed releasing non-PCB oil and fire suppression water to bare ground. GSU#3 is located south of GSU#1, and there is no overlap between the areas affected by each release.

Soil comments

no comments

Groundwater comments

Investigation forthcoming to determine whether PFAS was a component of AFFF used during 2011 fire response. See VCP SW1246 opinions dated 11/30/2023 and 12/4/2024 for further information.



Surface water comments

no comments

Sediment comments

no comments

Indoor air comments

no comments

Additional factors comments

no comments



Go to top

Site history

On January 20, 2011, generation step-up transformer number 1 (GSU#1) catastrophically failed resulting in the release of an estimated 2,000 gallons of non-polychlorinated biphenyl (non-PCB) mineral oil. Fluids consisting of mineral oil, fire suppression water, and firefighting foam pooled around GSU#1 and overflowed the secondary containment into a stormwater conveyance which ultimately discharged to a stormwater pond. The outfall from the pond was closed as part of the spill response and the contaminated water impounded in the stormwater pond, conveyance ditches, and GSU#1 secondary containment was pumped to an empty tank located east of the fuel oil tank. Groundwater pumped from the containment foundation excavation was also discharged to the tank east of the fuel oil tank. Absorbents collected some of the recoverable oil. Soil and water were saturated with oil near the failed transformer location. Oil saturated media was removed for disposal. Potentially uncontaminated stormwater was pumped to the secondary containment of the southwest fuel tanks where it was held pending analysis. Impacted soil was evaluated using visual, olfactory, and photoionization detector (PID) indications. Oil contaminated soil was removed from stormwater conveyances, the stormwater pond, and near transformer GSU#1 for disposal. Soil excavation generally extended 6 to 8 inches below ground surface (bgs) but near the GSU#1 transformer, excavations extended to 6 inches deeper than the groundwater interface, approximately 4 feet bgs. Free phase oil was collected to the extent practicable using oil skimmers and absorbent materials where observed. Imported fill (gravel and/or quarry spall) was used to backfill excavated soil. In sum, 72 confirmation soil samples were collected, of which, 3 samples exceeded the MTCA Method A cleanup level (CUL) for mineral oils (4,000 mg/kg). Repairs to the GSU#1 transformer secondary containment foundation were needed to complete the replacement of the failed GSU#1 transformer preventing additional soil excavation in this area. In May 2011, further investigation of residual contamination was completed. The May 2011 investigation included sampling groundwater and the diverted water held in above ground storage tank(s) (AST). One groundwater sample (GW-4) bore concentrations of mineral oil in excess of the Method A CUL. Stormwater pumped from the secondary containment bore detectable concentrations of diesel range petroleum. Oily pondwater pumped to the east fuel oil tank was processed to separate free phase petroleum and discharge uncontaminated water. No further work was planned concluding stormwater/wastewater disposal operations.

-- continued in overflow --



Overflow - Site contamination and cleanup history

On November 22, 2013, a second GSU transformer (GSU#3) catastrophically failed releasing non-PCB oil and fire suppression water to bare ground. GSU#3 is located south of GSU#1, and there is no overlap between the areas affected by each release. Contaminated water overflowed the GSU#3 containment structure entering a stormwater conveyance ditch and finally a dry stormwater basin. Fire suppression water and mineral oil was collected and pumped to a tank on Site for disposal. Impacted soil and gravel was excavated from the area immediately adjacent to GSU#3 containment, stormwater conveyance ditches, and the banks of the stormwater pond. Forty-five confirmation soil samples were collected, of which only two bore detectable concentrations of mineral oil. A sheen was observed on shallow groundwater, so the Station installed a vertical observation culvert, completed with a slotted screen section. The culvert was monitored by Station staff for presence of visible petroleum. Follow-up investigation into impacts related to the 2011 GSU#1 began in the fall of 2013. Two groundwater monitoring wells (MW-1 and MW-3) were constructed near previous soil or groundwater detections. Groundwater well MW-2 was advanced but not constructed due to proximity of utilities. A single temporary grab sample was collected from the MW-2 boring. Between March and April 2015, three additional groundwater monitoring wells (MW-4, MW-5, MW-6) were installed to evaluate groundwater impacts of the 2013 GSU#3 failure. As part of the groundwater evaluation, water in four electrical vaults was also sampled for petroleum impacts. In sum, one exceedance of mineral oil in soil remains on Site beneath the expanded GSU#1 containment unit. The permanent groundwater monitoring well network was sampled over 4 discontinuous quarters (beginning April 2015, ending March 2016) and did not bear detectable concentrations of mineral oil. Ecology provided a Further Action opinion dated June 26, 2017. Ecology recommended additional soil and groundwater sampling, analysis of water in the vertical observation culvert, and further risk analysis of mineral oil impacted groundwater into Station electrical vaults. The Station responded to a December 2022 VCP status request letter by providing the March 8, 2023, Additional Site Characterization Work Plan (Work Plan) to resolve remaining data gaps.

