



Focus on Alcoa Vancouver Cleanup

from Washington Department of Ecology

Alcoa Vancouver site history and cleanup actions to 2007

The Alcoa Vancouver site is located in Clark County on the north bank of the Columbia River approximately three miles northwest of downtown Vancouver, Washington. Alcoa constructed an aluminum smelter on the western portion of the site in 1940. Between 1944 and 1970, a number of fabrication operations were added to the facility to form aluminum into finished goods such as wire, rod, and extrusions. Alcoa operated the entire facility for approximately 45 years, until its closure in 1985.

In 1985, Alcoa sold the aluminum smelter to VANALCO. VANALCO has since been sold to Evergreen Aluminum (Glencore). While Alcoa has sold or discontinued all operations and divested much of the smelter property, the company has retained ownership of certain parcels, including the dock and alumina unloading facilities. Industrial and solid wastes from construction and operation of the aluminum smelter were stored in waste piles and consolidated in landfills onsite over the years. Hazardous contaminants in these wastes include petroleum hydrocarbons, polychlorinated biphenyls (PCBs), cyanide, fluoride, trichloroethylene (TCE), low-level organic chemicals, and metals.

Since 1990, Ecology has worked with Alcoa to determine the nature and extent of contamination within and resulting from the operation of the waste piles and landfills. An extensive investigation consisting of soil and groundwater monitoring was performed at the site. Feasibility studies were conducted to determine the best cleanup option for each waste pile, landfill, or other sub-site.

To date, Alcoa has spent approximately \$42 million on cleanup at the Vancouver site, including \$34 million on cleanup of PCBs.

PCB Cleanup and Source Control Actions to Date

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| 1988 | Alcoa completes voluntary cleanup of hydraulic oil & PCB-contaminated soils adjacent to Rod Mill |
| 1995 | Alcoa removes PCB-contaminated soil & concrete from Rod Mill building |
| 1997 | Ecology issues Agreed Order to Alcoa to clean up Northeast Landfill

Alcoa completes removal of waste from Northeast Landfill. High level PCBs sent off-site. Low level PCBs consolidated in East Landfill

Ecology is notified that Clark County discovered PCBs in Columbia River |
| 1998 | Ecology requires Alcoa to sample soils adjacent to East Landfill & on adjacent river bank. PCBs discovered in river bank just downstream of landfill

Alcoa applies to Corps of Engineers for Joint Aquatic Resource Permit to remove PCB-contaminated soils from the south bank area of concern |
| 1999 | Ecology requires Alcoa to conduct PCB sampling in Columbia River |
| 2000 | Alcoa completes phase I river sampling & submits report to Ecology |
| 2001 | Alcoa completes Phase II river sampling & submits report to Ecology |
| 2002 | Alcoa completes engineering design for the East Landfill cap, south bank excavation & shoreline embankment; receives aquatic resource permit |
| 2003 | Ecology issues Interim Action Agreed Order to cap East Landfill, excavate PCBs from south bank, & construct shoreline embankment to prevent release of PCBs to river

Excavation of south bank PCBs is completed; area is back-filled with clean material |

- 2004 Alcoa completes capping of East Landfill & construction of adjacent shoreline embankment
- 2005 Alcoa completes additional design work to further stabilize embankment of the East Landfill and completes in water habitat restoration required by state resource agency.
- 2006 Alcoa installs rip rap to stabilize at the lower portion of East Landfill shoreline embankment
- 2007 Ecology starts negotiations on Consent Decree for cleanup of Evergreen and Alcoa property
- Ecology learns of PCB-contaminated clams in Columbia River adjacent to Alcoa property
- Department of Health issues health advisory prohibiting clam harvesting on Columbia River near Alcoa property
- Ecology assigns sediment & toxicology specialists & attorney to work on Alcoa cleanup
- Contaminated clam warning signs in 8 languages placed at boat launches
- Ecology holds public meeting to discuss cleanup actions to date at Evergreen & Alcoa properties. Ecology reviews progress of cleanup at Crowley site
- Alcoa posts additional clam warning signs on the smelter river bank
- Ecology reviews risk data to determine final sediment cleanup standards and action levels
- Alcoa & Ecology agree on, and announce, an accelerated cleanup schedule to complete site cleanup as soon as legally possible

Other Site Cleanup Actions to Date

- 1986 Ecology issues administrative order to conduct a clean up investigation and feasibility study for cleanup of spent potliner at Vancouver smelter
- 1988 Ecology directs Alcoa to supply fresh water to workers in response to trichloroethylene contamination in plant production well
- 1990 Ecology issues Agreed Order to determine source of TCE in drinking water
- 1992 Ecology issues Consent Decree for cleanup of spent potliner site. Waste removed & site capped by December
- 1994 Alcoa removes sludge from process water settling lagoon & constructs new lined lagoons
- 1996 Alcoa completes excavation & soil bioremediation of former hydraulic oil disposal site and contaminated soils adjacent to Extrusion Mill & present day power plant