Reynolds Metals Company

New York

EPA ID#: NYD002245967

EPA REGION 2

Congressional District(s): 24

St. Lawrence

Massena

NPL LISTING HISTORY

Site Description

The 1,600-acre Reynolds Metals Company facility has been an active aluminum production plant since 1958. As a result of production activities and plant expansion, various types of industrial waste were disposed throughout the facility.

The Reynolds facility is bordered on the north by the St. Lawrence River and on the south by the Raquette River. In addition to contamination throughout the facility, Reynolds also discharged contaminants to the St. Lawrence River through four permitted outfalls. As a result of these discharges, sediments in the St. Lawrence River adjacent to the Reynolds facility have been contaminated with polychlorinated biphenyls (PCBs), aluminum, furans, and polyaromatic hydrocarbons (PAHs).

The site is approximately one mile upriver from the St. Regis Mohawk Indian Reservation, Akwesasne. The City of Cornwall, Ontario, with approximately 50,000 residents, is two miles north across the St. Lawrence River, and the Village of Massena, with a population of 13,000, is located eight miles to the east.

Site Responsibility: The contaminated sediments in the St. Lawrence River are being addressed through federal and potentially responsible parties' actions. Contaminated plant property and groundwater are being addressed through state and potentially responsible parties' actions.

Threat and Contaminants

PCBs are the primary contaminant found in St. Lawrence River sediment adjacent to the Reynolds facility. The highest concentrations of PCBs were detected in sediments located within 500 feet of Reynolds outfalls. Other contaminants, including furans, aluminum, cyanide, and PAHs are generally found in a pattern similar to that of PCBs. PCBs which are present in sediment may migrate downstream or dissolve slowly into the River. The consumption of fish and wildlife from contaminated areas is of concern, because of the tendency of PCBs to accumulate in the fatty tissues of fish and wildlife. Public water supply systems are not contaminated.

Cleanup Approach

This site is being addressed through one long-term remedial action focused on cleanup of St. Lawrence River sediment.

Response Action Status

Remediation of River Sediment: The original cleanup remedy that was selected by EPA in 1993 included dredging contaminated sediment followed by on-site treatment of the majority of the sediments by thermal desorption. Treatment residuals and untreated sediment with low-level PCB contamination were to be disposed of on-site. In 1998, EPA modified the remedy for the site to allow for off-site disposal, rather than on-site treatment, of highly contaminated dredged sediments. Materials with lower levels of contamination were deposited in an on-site landfill. The first phase of the dredging program was initiated in 2001. A 33-acre area in the St. Lawrence River was surrounded by a wall of interlocking steel sheets. This sheet pile wall was the primary containment system, designed to contain any contaminants which might be stirred up during the dredging process. Within the sheetpiled area, highly-contaminated materials were further separated with a silt curtain, which was designed to prevent contamination moving from the highly contaminated areas to areas with low levels of contamination. Areas with high levels of contamination were dredged. In all, 86,000 cubic yards of contaminated sediments were removed from the site. Post-dredging sediment samples revealed that it was technically infeasible to reach the PCB action level within a sixteen-cell area even after numerous dredge passes. An interim gravel cap was placed in this area. It was later determined that elevated levels of PAHs also remained in the sediment. Sediment samples were collected and analyzed for PAHs in May-June 2003, August-September 2004, and August-September 2006 to further delineate the residual PAHs.

An aquatic vegetation survey was conducted in July 2007 to determine the extent of habitat restoration in previously dredged areas of the site. An analysis of the survey determined that a diverse colony of submerged aquatic vegetation had naturally repopulated the site except in the vicinity of the interim PCB cap.

During the 2009 construction season, the nearshore excavation of four cells was performed followed by placement of a cap consisting of sand and armor (rocks). In addition, approximately 5 acres (61 cells) of the site was capped. A habitat layer was placed over the capped areas. An Explanation of Significant Differences documenting the actions taken to complete the remedial action at the site was issued in December 2008.

Site Facts: In November 1989, EPA issued a Unilateral Order to Reynolds requiring Reynolds to undertake an investigation of contamination in the river system surrounding its Massena facility. The Order also included design and implementation of EPA's final cleanup remedy. Reynolds is currently complying with the Order.

Cleanup Progress

Approximately 86,000 cubic yards of contaminated sediments have been removed from the site.

Site Repositories

EPA Region 2 Superfund Records Center, 290 Broadway, 18th Floor, New York, NY 10007-1866