

# Sinclair Refinery

## New York

EPA ID#: NYD980535215

### EPA REGION 2

Congressional District(s): 29

Allegany

S. Brooklyn Avenue in Wellsville

#### NPL LISTING HISTORY

Proposed Date: 7/1/1982

Final Date: 9/1/1983

## Site Description

The Sinclair Refinery site covers approximately 100 acres adjacent to the west bank of the Genesee River, one-quarter mile south of downtown Wellsville. The refinery was built in the late 1800's and operated by the Wellsville Refining Company until 1919 when the Sinclair Refining Company (now the Atlantic Richfield Company, or ARCO) purchased the property and operated the refinery until 1958, when a fire ended operations. After closure of the refinery, a majority of the property was transferred to the Village of Wellsville, which subsequently conveyed land parcels to various entities, including the State University of New York and the several companies now occupying the site. Various types of wastes including cloth filters, oil sludges, contaminated soil, pesticides, heavy metals, and fly ash were disposed of in two on-site landfills over a 30-year period. Prior to the site remediation, the landfill area of the site consisted of a 9-acre Central Elevated Landfill Area, a 2-acre South Landfill Area, and a 1-acre sand and gravel area between the two landfills. The landfill area of the site is located at the extreme southern end of the site, along the west bank of the Genesee River, approximately 1 and 1/4 miles upstream from the Village of Wellsville's former water supply intake pipe. The EPA, the State, and ARCO relocated the town's river water intake to a point upstream of the landfill in 1988, so that any contaminants entering the river through erosion of the landfill would no longer threaten the water supply. Before any steps to remediate the site were initiated, the river was slowly eroding the ground under the landfill, creating the potential for contamination of off-site surface waters if the river's flood waters were high enough to reach the landfill. Approximately 6,000 people live within a mile of the landfill. Several businesses and the State University of New York at Alfred's Wellsville Campus are located on the refinery portion of the Sinclair property. Approximately 500 people use the buildings located on this part of the site.

Site Responsibility: This site is being addressed through a combination of Federal, State, municipal, and potentially responsible parties' actions.

## Threat and Contaminants

Groundwater and soils contain volatile organic compounds (VOCs), semi-volatile organic compounds, and heavy metals. Potential human exposure from drinking water has been eliminated as a result of the relocation of the Wellsville Water Treatment Plant intake pipe. Inadvertant ingestion of contaminated groundwater at the site could present a risk. Prolonged exposure to contaminated dust from isolated "hot spots" on site were determined to also present a risk.

## Cleanup Approach

The site is being addressed in three stages: immediate actions and two long-term remedial phases focusing on stabilization of the landfill and source control in the refinery area of the site.

#### Response Action Status

Immediate Actions: In 1983, ARCO removed approximately 10 loose drums from the Genesee River. In 1983, the State of New York diverted the Genesee River away from the eroding face of the landfill and placed dredged material there as temporary protection against erosion. Later in 1983, the Village of Wellsville, Allegany County, and the State of New York stabilized the berm constructed to divert the Genesee River to protect the eroding landfill. In 1988, the Town's river water intake was relocated upstream from the landfill.

Stabilization of the Landfill: The EPA selected the following remedies to stabilize the eroding landfill: (1) remove approximately 300 drums from the landfill and dispose of them off-site; (2) excavate wastes from the 2-acre South Landfill Area; (3) place clean fill in the excavated area; (4) consolidate excavated wastes into the Central Elevated

Landfill Area; (5) cap consolidated wastes in the Central Elevated Landfill Area; (6) partially channelize the Genesee River to protect the landfill from erosion or flooding; and (7) construct a fence around the entire landfill to secure it. The EPA approved the designs to implement the river channelization portion of the remedy in February 1990 and the landfill consolidation portion in September 1990. Fieldwork commenced in 1990, and both of these activities were completed in 1991. The design of the cap for the consolidated landfill was completed at the end of 1991, with site construction activity commencing in 1992. Construction of the landfill cap was completed in January 1994.

Source Control/Refinery Site: The EPA selected the following remedies to address the refinery portion of the site in a Record of Decision signed in 1991: (1) the excavation of surface soil "hot spots" which exceed health-based cleanup criteria and their disposal in the Central Elevated Landfill Area; (2) pumping contaminated groundwater and treating it to health-based levels before discharge; and (3) monitoring site media, including the groundwater and surface water, for any possible contaminant migration. ARCO agreed to implement the soils remedy as per an order signed by the EPA in May 1992. The excavation and consolidation of surface soils commenced in 1992 and was completed in 1993. ARCO agreed to implement the groundwater remedy as per an order signed by the EPA in September 1992, using a phased approach. Phase 1, a combination of groundwater pumping and air sparging and soil vapor extraction for mass contaminant removal for the subsurface, was designed in 1993-1994 and placed in operation in 1995. The system was implemented through early 2003. Although 150,000 pounds of contaminant mass was removed during Phase 1 operations, EPA determined that a Phase 2 groundwater remedy was necessary to address remaining areas of subsurface contamination, notably in the riverbank and riverbed of the Genesee River adjacent to a portion of the site and in the main drainage swale. Additionally, groundwater beneath the site remains above drinking water standards mandating further treatment and protection of the river. As such, a Phase 2 investigation was completed in early 2004 and a Phase 2 design was developed. Elements of the Phase 2 design include physical barriers to protect site contaminants from entering the river, the removal of contaminant hot spots from the riverbed and drainage swale, and pumping with discharge to a treatment wetland for on-site groundwater. The initial portion of the Phase 2 design was completed in the spring of 2007. Construction of a groundwater collection and wetland treatment system began during the summer of 2007 and was completed in October 2008. This system has been operating since December 2008. The design of the remainder of the Phase 2 remedy was completed in spring 2009. Construction of the main drainage swale remedy was completed over the summer and fall of 2009.

Other Actions: Three removal actions were completed at the site between 1991 and 1995. These actions included the demolition and removal of an asbestos-containing powerhouse building associated with former refinery operations, including the demolition of a 245-foot concrete and brick smokestack and the excavation and removal of two underground storage tanks uncovered in the process of the powerhouse removal. Additionally, an oil-water separator was decommissioned and removed from the site and a drum removal was performed at a building used as a storage facility by a previous site occupant.

Site Facts: The Phase 2 groundwater remedy is the final remedial action planned at the site. Once completed, all potential threats to human health and the environment will be addressed.

## Cleanup Progress

OU1: In 1985, the EPA issued a Record of Decision which established the consolidation and capping of two small landfills and partial channelization of the adjacent Genesee River as the remedy for OU1. All remedial activities under OU1 were completed by 1994, with approximately 464,640 tons (290,400 cubic yards) of waste material contained within the landfill.

OU2: In 1991, the EPA issued a Record of Decision which established the excavation and disposal of surface soils exceeding the remedial cleanup criteria for arsenic and lead and the treatment of contaminated site groundwater as the remedy for OU2. Completion of the surface soils excavation was accomplished in 1994, with the removal of approximately 24,000 tons (15,000 cubic yards) of contaminated soil. Groundwater treatment has been addressed in two phases. Phase 1, accomplished primarily through air sparging and soil vapor extraction, was initiated in 1995 and completed in 2003, resulting in the removal of over 150,000 pounds of subsurface contamination. A Phase 2 groundwater remedy which addresses continued groundwater treatment, protection of the Genesee River, and the removal of isolated contaminant hot spots has been dual tracked. The construction of the Phase 2 remedy will take place over three construction seasons: the groundwater collection and treatment remedy was completed in 2008; the main drainage swale remediation was completed in 2009; the remediation of the Genesee River sediments and bank soils is scheduled to be completed in 2010. Completion of the Phase 2 remedy will permanently mitigate contaminant migration from the site and eliminate all risks to human health and the environment.

## Site Repositories

David A. Howe Library, 155 North Main Street, Wellsville, New York, 14895 and USEPA Western New York Public

Information Office, 186 Exchange Street, Buffalo, New York, 14204.