

Federal Creosote

New Jersey

EPA ID#: NJ0001900281

EPA REGION 2 Congressional District(s): 07 Manville

NPL LISTING HISTORY
Proposed Date: 7/28/1998
Final Date: 1/19/1999

Site Description

The Federal Creosote Site occupies approximately 50 acres of a highly developed residential/commercial area in the Borough of Manville, Somerset County, New Jersey. The Site was operated as a coal tar wood treatment facility from 1911 to 1956. After operations ceased and the wood treatment facility was dismantled, the property was purchased by a developer. In the 1960s 137 single family homes were built on 35 acres of the Site. This residential area became known as the Claremont Development. The remaining 15 acres of the site was developed into the Rustic Mall which consists of commercial and retail establishments.

The Site is triangular in shape and is bordered on the west by retail shops that line the Borough's Main Street. To the north, the Site is bordered by the Norfolk Southern Railroad tracks; on the opposite side of these tracks is the former Johns-Manville property that has been redeveloped into a variety of retail and commercial uses. The site is bordered on the south by the CSX Railroad tracks; the area on the other side of these tracks is primarily residential. There are no open streams or drainage ways (other than storm sewers) within the residential development. The Millstone River is located approximately 1/4 mile south of the Site and the Raritan River is located approximately 1/2 mile north of the Site.

Site Responsibility: This site is being addressed through Federal and State actions.

Threat and Contaminants

A review of historical information revealed that, during its operation, the facility treated railroad ties with creosote. Wood treatment activities at the Site resulted in the production of creosote-contaminated sludges, sediments, process residuals, preservative drippings, and spent process liquid. The most prominent features of the wood treatment operations included two unlined canals that conveyed creosote waste to two unlined lagoons that were used to hold concentrated creosote waste sludge. Investigations by EPA revealed that creosoting materials and contaminated soils associated with the wood treating facility were not removed prior to construction of the Claremont Development and Rustic Mall. The former lagoons were located from 2 - 5 feet below ground surface; the waste from one lagoon extended approximately 25 feet below ground surface while the other extended over 35 feet to bedrock. At several properties, the former lagoons and associated sludge were found to abut and/or underlie existing residences. The material in the lagoons was concentrated creosote sludge; on at least one occasion, creosote sludge seeped into a residential basement sump, was pumped onto the residential street, and flowed into the storm sewer system. The creosote waste in the canals is shallower - extending approximately 14 feet below ground surface. The material found in the buried canals ranged from a dry, crusty creosote/soil mixture to flowable creosote waste sludge.

EPA conducted extensive surface soil sampling in the spring of 1998 to determine whether there was any immediate threat to current residents. This sampling revealed that surface soil at approximately 11 homes with the highest overall levels of carcinogenic polycyclic aromatic hydrocarbons (material associated with wood treating chemicals) posed an unacceptable risk over the long-term. EPA has taken action at those properties (see below.)

The lagoon sludge and canal waste is highly contaminated source material which poses a risk to current and future residents. The primary routes of exposure included: dermal contact with contaminated sludge and soil (present and future risk). Source material contaminated ground water which could result in a future risk associated with ingestion of contaminated ground water.

Cleanup Approach

The Site is being addressed in three Operable Units (OUs). OU1 addresses the areas of the residential development that contain the source material in the buried lagoons and canals. OU2 addresses the soils in the areas of the residential

development that contain residual levels of creosote above risk based cleanup goals. OU3 addresses contaminated soils in the commercial mall and site wide groundwater.

Response Action Status

Residential Soil: The New Jersey Department of Environmental Protection (NJDEP) asked EPA to assume the lead for this site in early 1998. EPA has expedited its response to this site because of the potential risk to residents. In July 1998 EPA initiated a removal action at 11 properties to temporarily cover areas that contained high surface soil levels of carcinogenic polycyclic aromatic hydrocarbons in exposed surface soils.

Initial long term cleanup actions have focused on properties that contain the lagoons and canals (OU1). EPA selected an early action remedy for these areas in September 1999. The action called for remediation of 29 residential properties and involves the permanent relocation of 19 property owners so that the source material can be excavated and thermally treated off site.

In September 2000, EPA selected a remedy to address OU2, which called for the remediation of soils on all other properties in the Claremont Development containing creosote above risk based cleanup goals. Under the selected remedy, an additional 64 properties in the Development were to have contaminated soils excavated, treated and disposed off site.

Commercial Mall: A Record of Decision (ROD) for OU3 was signed in September 2002. The selected remedy for OU3 addressed the commercial mall soils and groundwater. As with the previous residential soil remedies for the site, the mall remedy called for off-site thermal treatment and disposal of contaminated soils.

Groundwater: The selected remedy in the OU3 ROD also calls for implementing a long-term sampling and analysis program to monitor the concentrations of creosote components in the groundwater at the site. This monitoring program will allow EPA to assess the migration and attenuation of the creosote in the groundwater over time. Institutional controls will be used to restrict the installation of wells and the use of groundwater in the vicinity of the contaminated groundwater.

Cleanup Progress

EPA has cleaned up 93 residential properties in need of remediation. The remediation of these properties required permanent and temporary relocation of residents, excavation to depths ranging from 1 to 35 feet below ground surface, and has resulted in the removal of over 275,000 tons of soil from the residential development.

The cleanup of OU1 has been divided into three phases. Phase 1 focused on the cleanup of the southern lagoon; phase 2 focused on the cleanup of the northern lagoon and canal; phase 3 focused cleanup efforts on the southern canal. EPA has acquired and demolished 18 residential properties to facilitate the 3 phase cleanup of the canals and lagoons.

Phase 1 remedial action involved the permanent relocation of residents from eight properties, demolition of eight single family homes, and excavation and removal of 64,000 tons of contaminated soil to off-site treatment and disposal facilities. Remediation of phase 1 was completed in June 2002. Ownership of these eight properties was transferred to NJDEP in July 2003. NJDEP is preparing to sell the properties by a public auction.

Phase 2 of the OU1 remedial was completed in 2005. This phase includes the permanent relocation of residents from eight properties located over the northern lagoon and canal. The houses on the eight lots were demolished and excavation of creosote contaminated soil from this northern lagoon and canal started in April 2002. Excavation on this phase reached a depth of 35 feet below the ground surface. Approximately 115,00 tons of creosote contaminated soil have been excavated and shipped off site to treatment and disposal facilities. These properties have been backfilled with clean soil and are currently up for sale.

The remediation of OU1 phase 3 started in June 2003. This phase required the excavation transportation and disposal of 30,000 tons of contaminated soil from 13 residential properties and roadways located on the buried southern creosote canal. Phase 3 included the permanent relocation of residents from five properties built over a portion of the buried southern creosote canal. Cleanup of the OU1 Phase 3 properties was completed in January 2006.

The remediation of the 64 OU2 properties has been divided into two phases. In February 2002 EPA started the cleanup of OU2 phase 1 properties. This phase consisted of 14 properties that surrounded the southern lagoon area (OU1 phase 1). By June 2002, 8,500 tons of contaminated soil were excavated, transported, treated and disposed off site, the 14 properties were completely restored, and temporarily relocated residents were returned to their homes.

In June 2003 EPA began the remediation of the OU2 phase 2 properties. Cleanup activities at the 50 OU2 Phase 2 properties in need of remediation resulted in the removal, treatment, and/or disposal of 57,000 tons of soil containing creosote.

EPA began the remediation of the commercial mall in August 2005. Approximately 177,000 tons of soil containing creosote have been excavated and shipped off site for treatment and/or disposal. The remediation of the mall was completed in January 2008.

Site Repositories

Manville Public Library 100 South 10th Ave Manville, New Jersey 08835 (908) 722-9722

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