

Radium Chemical Company, Inc.

New York

EPA ID#: NYD001667872

EPA REGION 2 Congressional District(s): 09

Queens
Woodside/Queens

NPL LISTING HISTORY
Proposed Date: 8/16/1989
Final Date: 11/21/1989
Deletion Date: 3/24/1995

Site Description

The Radium Chemical Company (RCC) site consisted of an abandoned building on approximately 1/3 acre of land at 60-06 27th Avenue in Queens. From the mid-1950s through 1983, the company leased specially packaged radium to hospitals for use in the treatment of cancer. When it was abandoned, the facility contained a large quantity of radium-226 sealed in small metal tubes or rods referred to as "needles," totaling approximately 120 curies. In 1983, the State ordered the company to stop its business operations due to a series of regulation violations. State inspections disclosed violations involving lost shipments of needles, radiation levels exceeding allowable standards within the plant, and elevated radon levels, indicating microscopic defects in the needles. In 1987, the State ordered RCC to remove its inventory of radioactive sources and to decontaminate the work site. In 1988, a State judge declared the RCC site officially abandoned. Approximately 300,000 people reside within 3 miles of the site. The majority of the surrounding area is composed of light industry and small businesses, with some residential areas within 1/2 mile of the site. The Brooklyn-Queens Expressway is less than 10 feet from the site. A large health club is located within 100 feet of the RCC facility.

EPA has completed its cleanup activities at this Site, allowing it to be deleted from the National Priorities List on March 24, 1995.

Site Responsibility: This site has been addressed through Federal actions

Threat and Contaminants

This site no longer poses a threat to human health or the environment. The building interior was contaminated with residual radium and radon gas from the former site operations. The potential threat existed from the possible inhalation of radon gas and exposure to gamma radiation, if people should enter the building on the site.

Cleanup Approach

The site has been addressed in two stages: immediate removal actions which focused on removal of the radioactive sources, and a long-term remedial action which focused on cleanup of the residual radioactivity remaining on the entire site.

Response Action Status

Immediate Actions: Over a 9-month period, a removal action was conducted by EPA. During the months of July and August 1989, all of the needles on site were repackaged to prevent the release of radioactivity and were removed in five shipments to a facility in Nevada dedicated to the disposal of radioactive wastes. In August 1989, non-contaminated flammables, poisons, and other reactive chemicals were sent for incineration and disposal. In September 1989, one shipment of highly contaminated debris, tools, and other materials found in the building also was sent to the Nevada facility. In addition, in September and October 1989, low-activity contaminated debris was sent to a low-level radioactive waste disposal facility in Hanford, Washington. Elemental mercury found in the building was recycled and sent to a facility in Pennsylvania. These removal actions resulted in the greatest hazards being removed from the site.

Entire Site: In early 1990, EPA prepared a study that outlined the nature and extent of contamination remaining at the site and described the various cleanup alternatives evaluated. EPA selected the final site remedy, which consisted of partial decontamination of the building, followed by its complete dismantling and disposal in appropriate facilities.

Cleanup actions began in November 1990 and all work was completed in July 1994.

Site Facts: In July 1988, at the request of the State, the Supreme Court in Queens issued an order finding that the company and its president could not perform their obligations and duties to secure the plant. In February 1989, the company was convicted of four violations and was fined the maximum amount permitted by statute.

Cleanup Progress

(Construction Completed)

The initial emergency response action resulted in the removal of 118.6 curies of high activity waste and 188.9 millicuries of low activity waste from the site. Another 197 gallons of hazardous wastes were removed and incinerated off-site, 50 lbs of propane was disposed off-site, and 500 lbs of elemental mercury was recycled. The long-term remediation resulted in the off-site disposal of approximately 812 tons of radioactive soil and debris, 92 tons of radioactively-contaminated hazardous wastes, 862 tons of uncontaminated masonry and concrete building debris, and the recycling of 45 tons of elemental lead and 20 tons of structural steel.

The initial removal of radium sources and the subsequent decontamination and dismantling efforts have eliminated the potential for exposure to radioactive materials at the Radium Chemical site. EPA published a Notice of Intent to Delete the site from the National Priority List in the Federal Register in October 1994. The final Notice of Deletion was published in the Federal Register on March 24, 1995.

Site Repositories

USEPA Records Center 290 Broadway, 18th floor New York, NY 1007 (212) 637-4308