

# NPL Site Narrative for Lansdowne Radiation Site

## LANSDOWNE RADIATION SITE Lansdowne, Pennsylvania

**Conditions at proposal (April 10, 1985):** The Lansdowne Radiation Site is a duplex structure located on approximately 0.5 acre in Lansdowne, part of the metropolitan area of Philadelphia, Pennsylvania. From 1924 to 1944, a chemistry/physics professor used the basement of the 105 E. Stratford Avenue residence as a laboratory. The operation was predominately the manufacture of radium sources for medical radiation therapy. The professor died in the mid-1940s, and the ownership of 105 E. Stratford has changed twice, first in the late 1940s and then in the early 1960s. The 107 E. Stratford residence has not changed ownership.

Two radiological studies of the site were completed in 1984, the first by EPA and the State, the second by Argonne National Laboratory. Both detected excessive levels of radium, radon gas, and radon decay products. The U.S. Department of Energy estimates that 800 to 1,200 cubic yards of contaminated soil are on the site.

Residents of the duplex are immediately affected by the contamination. The surrounding suburban residential area could be affected should the structure catch fire and spread contamination via smoke.

On September 10, 1984, using CERCLA emergency funds, EPA and the Federal Emergency Management Agency temporarily relocated both residents and most of their uncontaminated personal belongings. In addition, an extent-of-contamination and radiological assessment have been completed for both properties. A proposed workplan and safety protocols are being developed. A fire/burglar alarm has been installed, and a fire sprinkler system is being installed.

On February 12, 1985, EPA proposed amendments to the National Contingency Plan (NCP), the Federal regulation by which CERCLA is implemented, to allow placing a site on the NPL if the Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Department of Health and Human Services has issued a health advisory and if the site meets certain other criteria. On March 5, 1985, ATSDR issued an advisory warning that radiation levels within the duplex made it unsafe.

**Status (September 16, 1985):** EPA has revised the NCP to allow placing such sites on the NPL and placed Lansdowne Radiation Site on the NPL.

EPA has concluded that the best way to remove permanently the health hazard at Lansdowne is to remove the structure. Accordingly, EPA and the Federal Emergency Management Agency are negotiating to purchase the two homes. The structure will be dismantled and transported to a licensed facility in Hanford, Washington. EPA will develop a plan for monitoring the site to ensure that radiation levels are not excessive. The total cost is estimated at \$3.5 million.

A recent Argonne interim report indicates that radioactive contamination has migrated off-site to soil at the edge of E. Stratford Avenue and to the sewer in the avenue. Also, the estimate of the volume of contaminated materials on-site has been increased to approximately 2,000 cubic yards.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at [ATSDR - ToxFAQs](http://www.atsdr.cdc.gov/toxfaqs/index.asp) (<http://www.atsdr.cdc.gov/toxfaqs/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.