

Site Review And Update

MAYWOOD CHEMICAL COMPANY
MAYWOOD/ROCHELLE PARK, BERGEN COUNTY, NEW JERSEY

CERCLIS NO. NJD980529762

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Site Review and Update: A Note of Explanation

The purpose of the Site Review and Update is to discuss the current status of a hazardous waste site and to identify future ATSDR activities planned for the site. The SRU is generally reserved to update activities for those sites for which public health assessments have been previously prepared (it is not intended to be an addendum to a public health assessment). The SRU, in conjunction with the ATSDR Site Ranking Scheme, will be used to determine relative priorities for future ATSDR public health actions.

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Prepared by

Federal Programs Branch
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SUMMARY OF BACKGROUND AND HISTORY

The Maywood Chemical Company Site, which includes the Stepan Chemical Company (formerly the Maywood Chemical Company) property, Maywood Interim Storage Site (MISS), the Ballod property, the Scanel site, the Sears warehouse and adjacent properties, and residential/governmental properties, is in Maywood, Rochelle Park, and Lodi in Bergen County, New Jersey. It is approximately 13 miles northeast of Newark, New Jersey (Figure 1). According to the 1990 Census, the population of Maywood was 9,473, the population of Rochelle Park was 5,587, and the population of Lodi was 22,355. The local economy is based predominantly on light industry.

From 1916 until 1956, the Maywood Chemical Company extracted thorium and rare earth metals from monazite sands for the manufacturing of gas lantern mantles. The company also manufactured other chemical compounds. All process waste was pumped to a diked area west of the facility. Some of the waste was used off site by residents as mulch and fill dirt. Other waste was spread during the construction of New Jersey Route 17 through the waste area (1932). Waste also was spread through water runoff to the old Lodi Brook. In 1959, Stepan Chemical Company bought the Maywood Chemical Company property and began cleanup of the waste area west of Route 17. Under a license issued by the Atomic Energy Commission (AEC), the waste was buried in three locations on the Stepan Chemical Company's property. The area cleaned was released for unrestricted use by AEC in 1969 and is now the site of a senior citizens home. In 1980, residual radioactive contamination was found on residential and commercial property north and south of the area originally cleaned. In 1982, the U.S. Environmental Protection Agency (EPA) began investigating the site; it was listed on the EPA National Priorities List (NPL) in 1983. Also in 1983, Congress authorized the U.S. Department of Energy (DOE) to clean up the contamination (predominantly radiologic) associated with the thorium processing. DOE purchased 11.7 acres of land from Stepan Chemical in 1985 to use as an interim storage site during remediation efforts.

By 1988, the contaminated properties were identified and were at different investigative, characterization, or remedial stages under the auspices of EPA for chemical characterization/clean-up operations and of DOE for radiologic analysis/remediation. There was substantial evidence of radiologic (predominantly thorium-232) and chemical contamination in the surface soils and sediment on the Sears property, MISS, the Scanel site, and some residential properties, although characterization of the sites was not complete. There was also some evidence of subsurface soil contamination from thorium-232, radium-226, gasoline, and

fuel oils on the Sears property. There was evidence of groundwater contamination on the MISS property, as well as in 11 public water wells in Lodi, which were closed. (Lodi municipal wells are listed separately on the NPL.)

Twenty-four properties (mainly residential) had been fully remediated. In 1984 and 1985, approximately 35,000 yd³ of contaminated materials were removed from private properties in Maywood and Rochelle Park, and approximately 500 yd³ had been removed from Lodi. Remediation was halted in 1986 because of opposition on the part of the citizens of Maywood.

Past public health and community concerns at the site included the health effects of radioactive and chemical wastes in the area's soils and groundwater; public resistance to and outrage about the construction of an interim storage site in a relatively densely populated area; a perceived lack of comprehensive characterization of the nature and extent of contamination in the area; and dissatisfaction with the remedial investigation and risk assessments prepared by DOE and DOE contractors.

A health assessment, prepared by the New Jersey Department of Health, Environmental Health Service, under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), dated July 30, 1990, concluded that the site was of public health concern because of the risk to human health caused by the likelihood of human exposure to hazardous substances at concentrations that could result in adverse health effects. The assessment also indicated that people probably had been in the past and were probably currently being exposed to chemical and radiologic contamination from their use of contaminated groundwater and contact with contaminated soils. The assessment recommended that both on- and off-site contamination be fully evaluated, and that a coordinated assessment of the total impact of characterization and remedial projects be performed to determine the potential health effects on the surrounding population. Because of the possible human exposure to on- and off-site contaminants, the site was being considered for follow-up health studies.

CURRENT SITE CONDITIONS

ATSDR representatives Carol Connell, Rita Ford, Jack Hanley, Jeff Kellam, and James Walker visited the Maywood-Rochelle Park-Lodi area on July 20-24, 1992. On July 21, 1992, the ATSDR regional representative (Arthur Block), the EPA remedial project manager (Jeff Gratz), the New Jersey Department of Health project manager (Jim Pasqualo), and the New Jersey Department of Environmental Protection and Energy representative (Robert Hayton) accompanied the ATSDR representatives on a tour of the site, which included a

tour of the Stepan Chemical Company property. The MISS property was not toured because a DOE representative was not present. Because remedial actions stopped in 1986, there has been little change in the physical appearance of the properties since the 1990 health assessment was issued.

During the site visit, ATSDR personnel made the following observations:

- Part of the old Lodi Brook remains on the Sears and vicinity property; access is not restricted. During the site visit, it was noted that workers from the nearby DeSaussure Plant ate lunch while sitting on the grass and by the trees along this brook. Also, individuals were seen picking cattails and green apples in the area.
- Although remediation has been halted, DOE has continued to identify and characterize additional properties. Several of the homes in Lodi, which have been characterized, appear to have recent home improvements. One home in Lodi was partially remediated in 1991 because contaminants potentially posed an immediate risk. DOE has identified other properties as needing remediation, but does not believe they pose an immediate risk. DOE's draft remedial investigation (RI) was completed in July 1992; the draft risk assessment is scheduled for August 1992; the draft feasibility study (FS) for December 1992; the final RI/FS for June 1993; and the record of decision (ROD) for January 1994. Stepan's draft RI is scheduled for late spring 1993, and the draft FS for the summer of 1993.
- Maywood, Rochelle Park, and Lodi are now receiving alternative water supplies. According to the county health department, the water is supplied by Hackensack, which is east of Maywood.

CURRENT ISSUES

There is a high level of public concern about the Maywood Chemical Company site, especially on the part of the citizens of Maywood. The citizens remain opposed to the MISS being located in the area and are concerned that it may be permanent instead of interim.

Public health concerns expressed by state, county, and local agencies include the effects of the contaminants on the communities' health over a long period of time. Specifically, there is concern about the health effects of thorium-232 and its

decay products, which have been identified in soil, and about the potential for exposure at residences by way of ingestion and inhalation.

The 1990 health assessment concluded that the site was of public health concern and should be considered for health studies. In 1991, the Division of Health Studies recommended that ATSDR not conduct a follow-up health study at the site. James Walker, Division of Health Studies, participated in the site visit. Most of the comments and questions during meetings with public health officials were about that issue. The health officials are very interested in having a health study performed.

CONCLUSIONS

In certain areas of Maywood, Rochelle Park, and Lodi, people have been exposed to and will continue to be exposed to low levels of contaminants (mainly thorium-232 and its decay products) in surface soils. Remediation was halted in 1986, and there is no indication that it will begin again. It does not appear that radiologic contaminants threaten groundwater; however, other contaminants have been identified in groundwater, and the communities are receiving alternative water supplies.

The Maywood Chemical Company Health Assessment was reviewed by the Health Activities Recommendation Panel (HARP) in 1990. In December 1990, after review of additional information, it was determined that a public health investigation (a health statistics review) is indicated for the site, and that the health statistics review should focus on cancers. The Maywood Chemical Company site is eligible for funding of the public health investigation under Announcement 230.

As was recommended in the 1990 health assessment, it appears that identification and characterization of on- and off-site contaminants has been and is continuing to be accomplished; EPA is acting as a recipient of information from both DOE and Stepan.

The data and information developed in this site review and update have been evaluated to determine if follow-up actions may be indicated. Further site evaluation is needed to determine public health actions.

RECOMMENDATIONS

1. Continue to gather technical information about the site on a timely basis as the DOE and Stepan Chemical Company schedules progress.
2. The Federal Programs Branch (FPB) will prepare health

consultations of the radiologically contaminated sections of the site. Those consultations will address the public health concerns of the state and local agencies and citizen groups.

3. Upon completion and approval of the remedial investigations by DOE and Stepan Chemical, ATSDR will re-evaluate the need to conduct an additional public health assessment of the site.

DOCUMENTS REVIEWED

1. ATSDR Health Assessment for Maywood Chemical Company, Maywood, New Jersey, CERCLIS NO. NJD980529762, July 30, 1990.
2. Maywood Interim Storage Site Annual Environmental Report for Calendar Year 1990, Maywood, New Jersey, September 1991. DOE/OR/21949-287.
3. DOE's Maywood Fact Sheets, FUSRAP Activities at Maywood, New Jersey, October 1991.
4. Summary of the Radiological Characterization of Residential, Commercial and Municipal Properties in Lodi, New Jersey, prepared by Bechtel National Inc.
5. 1990 Census of Population and Housing, U.S. Bureau of the Census, prepared by New Jersey State Data Center, New Jersey Department of Labor, May 1992.
6. FUSRAP Maywood Interim Storage Site Administrative Record Index, compiled by Bechtel National Inc., April 13, 1992.