

PRELIMINARY
Health
Assessment
for

CURCIO SCRAP METAL YARD

SADDLE BROOK TOWNSHIP, BERGEN COUNTY, NEW JERSEY

JULY 7, 1988

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service

THE ATSDR HEALTH ASSESSMENT: A NOTE OF EXPLANATION

Section 104(i)(7)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, states "...the term 'health assessment' shall include preliminary assessments of potential risks to human health posed by individual sites and facilities, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified hazardous substances and any available recommended exposure or tolerance limits for such hazardous substances, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The Administrator of ATSDR shall use appropriate data, risk assessments, risk evaluations and studies available from the Administrator of EPA."

In accordance with the CERCLA section cited, ATSDR has conducted this preliminary health assessment on the data in the site summary form. Additional health assessments may be conducted for this site as more information becomes available to ATSDR.

PRELIMINARY HEALTH ASSESSMENT
CURCIO SCRAP METAL YARD
BERGEN COUNTY
SADDLE BROOK TOWNSHIP, NEW JERSEY
July 7, 1988

Prepared By:
Office of Health Assessment
Agency for Toxic Substances and Disease Registry (ATSDR)

Background

The Curcio Scrap Metal Yard is listed by the U.S. Environmental Protection Agency (EPA) on the National Priorities List (NPL). The facility is an active scrap metal yard, which over a three-month period, purchased and scrapped 50 transformers, releasing polychlorinated biphenyls (PCBs) on-site. To date, EPA has not yet conducted a Remedial Investigation or Feasibility Study (RI/FS).

Environmental Contamination and Physical Hazards

The predominant contaminants of concern are the polychlorinated biphenyls (PCBs), arochlor 1260 and arochlor 1248. EPA and the New Jersey Department of Environmental Protection have conducted only limited sampling to date. In a sample taken from a drainage ditch adjacent to the site, PCBs were reported to be 251 ppm in the water layer and 462 ppm in the oil layer. In a sample from a private well the PCB levels were reported to be 3.2 ppm (arochlor 1248) and 5.6 ppm (arochlor 1260). The information available at the time this report was prepared indicated that the analytical results for some soil samples did not pass EPA Quality Assurance/Quality Control checks. The acceptable data indicated soil contamination directly under the transformers to be 105 ppm arochlor 1260 and 47 ppm arochlor 1242.

No information was available at the time this Preliminary Health Assessment was prepared concerning any physical hazards associated with this site.

Potential Environmental and Human Exposure Pathways

Contaminated or potentially contaminated environmental pathways associated with this site appear to be on-site and off-site soil, groundwater, and surface water, with further potential for food chain contamination if the contaminants (PCBs) have reached nearby Schroeders Brook and accumulated in aquatic species used for human consumption.

Human exposure pathways associated or potentially associated with this site are ingestion and dermal absorption of contaminated groundwater; and secondarily, ingestion, dermal absorption, and inhalation of contaminated fugitive dust, and ingestion of contaminated aquatic foodstuffs.

Curcio Scrap Metal Yard, Saddle Brook Township, New Jersey

Demographics

An estimated 1,000 to 3,000 persons live within a 1-mile radius of the site, with the closest residence approximately 300 feet from the site perimeter. The site is located in a mixed industrial and residential area, with the population within a three-mile radius estimated to be 30,000.

Evaluation and Discussion

According to the information available, access to the site is restricted to employees by a fence. The potential for off-site contamination (PCBs) in areas without restricted access is indicated.

The human exposure pathways of greatest concern at this site appear to be ingestion and/or direct contact with contaminated groundwater. Available information regarding groundwater contamination and use appears dated. Apparently most residences are connected to an uncontaminated public water supply, with only four private wells in the vicinity of the site, only two of which are in use. Sampling of two private wells was conducted in 1982, but the data may not reflect current conditions. Additional environmental sampling is required to evaluate the importance of this pathway.

Potential human exposure pathways of secondary concern are ingestion, inhalation, and/or direct contact with contaminated soils on-site and off-site. Additional environmental sampling is required to evaluate the importance of this pathway.

A third potential pathway of human exposure involves ingestion of aquatic species from Schroeders Brook or other downstream areas, should these be contaminated and used as a source of food. Further environmental sampling is required to determine the importance of this pathway.

The ATSDR is preparing a Toxicological Profile on Polychlorinated Biphenyls (PCBs).

Conclusions and Recommendations

Based on the available information, this site is considered to be of potential public health concern because of the risk to human health caused by the possibility of exposure to hazardous substances via the above-named human exposure pathways.

Curcio Scrap Metal Yard, Saddle Brook Township, New Jersey

The limited environmental sampling conducted to date by EPA indicates that on-site and off-site groundwater, surface water, and soil are contaminated with PCBs. Further, there is a potential for off-site migration of PCBs into adjacent surface waters with consequent bioaccumulation in aquatic species in Schroeders Brook or other downstream surface waters.

Additional environmental characterization and sampling is required to evaluate the extent of off-site migration of PCB's, and to determine the existence of current human exposure pathways.

The EPA should take immediate steps to ensure that safe domestic water source(s) are available to area residents and on-site workers.

Further environmental characterization and sampling of the site and impacted off-site areas during the RI/FS should be designed to address the environmental and human exposure pathways discussed above. When additional information and data become available, e.g., the completed RI/FS, such material will form the basis for further assessment by ATSDR at a later date.