

# NPL Site Narrative for Zschiegner Refining

## ZSCHIEGNER REFINING Howell Township, New Jersey

**Conditions at Proposal (September 1997):** The Zschiegner facility is located on a vacant 6.1-acre parcel in a rural area of Howell Township, Monmouth County, New Jersey. From the 1960s to the early 1990s, a precious metals recovery operation was located on the facility property. On-site operations included the chemical stripping of precious metals from watch bands, film, and electrical components. At an unknown date, the facility owner also began the illegal manufacturing of methamphetamine and the facility was subsequently raided on October 31, 1992 by the Federal Drug Enforcement Agency. During the raid, Federal agents found approximately 3,000 chemicals, including sodium peroxide, cyanide salts, caustic liquids, and acids, improperly stored throughout the facility.

On November 2, 1992, the U.S. Environmental Protection Agency (EPA) arrived at the facility in order to conduct a site evaluation. During this evaluation, the following observations were made: 1) numerous chemical containers were deteriorated; 2) a container labeled sodium peroxide had exuded its contents, and water from a recent rain storm was leaking from a hole in the roof near the container; 3) erosion and crystalline formations were found on the floor underneath open vats of liquids; 4) numerous liquids were being stored in household-type plastic garbage cans; and 5) several suspected surface discharge areas were located outside the facility building. As a result of this site evaluation, an EPA removal action was started.

Operations conducted during the removal action included segregating the materials (i.e. liquids and sludges), transferring the materials to different containers, detonating potentially explosive/reactive items, removing hazardous materials from the site for off-site disposal, sampling liquids from the vats and drums, and collecting on-site soil and sediment samples. Under the first action memorandum, approximately 2,000 gallons of acidic solutions and 1,600 gallons of basic solutions were transferred into approved containers, and approximately 1,400 small containers of hazardous substances were lab-packed.

An EPA contractor conducted an on-site reconnaissance at the Zschiegner site on July 19, 1995. Three discharge areas, which appeared to originate near the on-site building and lead through the wetlands to Haystack Brook and a tributary to the Brook, were located. Dead and stressed vegetation was present in the pathways of all three discharges. Two discharges were located on the northeast side of the building and the third discharge was located on the eastern side of the building. In addition, an area of dead vegetation was also found on the southern side of the building.

A subsequent EPA contractor sampling event was conducted at the Zschiegner site in August 1995. During this sampling event, seven surface water/sediment sample pairs and 10 soil samples were collected. Analysis of these samples indicated the presence of inorganic contaminants in the on-site soil and downstream surface water/sediment samples. In addition, contamination of 0.1 mile of wetland frontage, as well as the contamination of a classified stream, was documented based on the results of the surface water/sediment samples. All of the samples were analyzed and validated through the EPA Contract Laboratory Program. It should be noted that organic compounds were detected in the samples collected during the EPA removal action.

**Status (March 1998):** EPA is considering various alternatives for the site.

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.