

**American Cyanamid (II-131)**  
**Bound Brook, New Jersey**  
**30 June 1985**

### **Location and Nature of Site**

American Cyanamid is an active industrial facility on a 575-acre tract of land adjacent to the Raritan River. The facility has several individual disposal sites, including a total of 26 active and inactive lagoons and inactive landfills. Approximately 800 types of chemicals, including dyes and textiles chemicals, organic pigments, rubber chemicals, pharmaceuticals, and intermediate chemicals have been produced here. At present, pharmaceuticals are the principal production items. Over the course of 50 years, American Cyanamid has buried an estimated 800,000 tons of chemical wastes at the site. The company used unlined lagoons for treatment and storage of wastewater and sludges. An incinerator was put into operation in 1979 for the disposal of newly produced sludge.

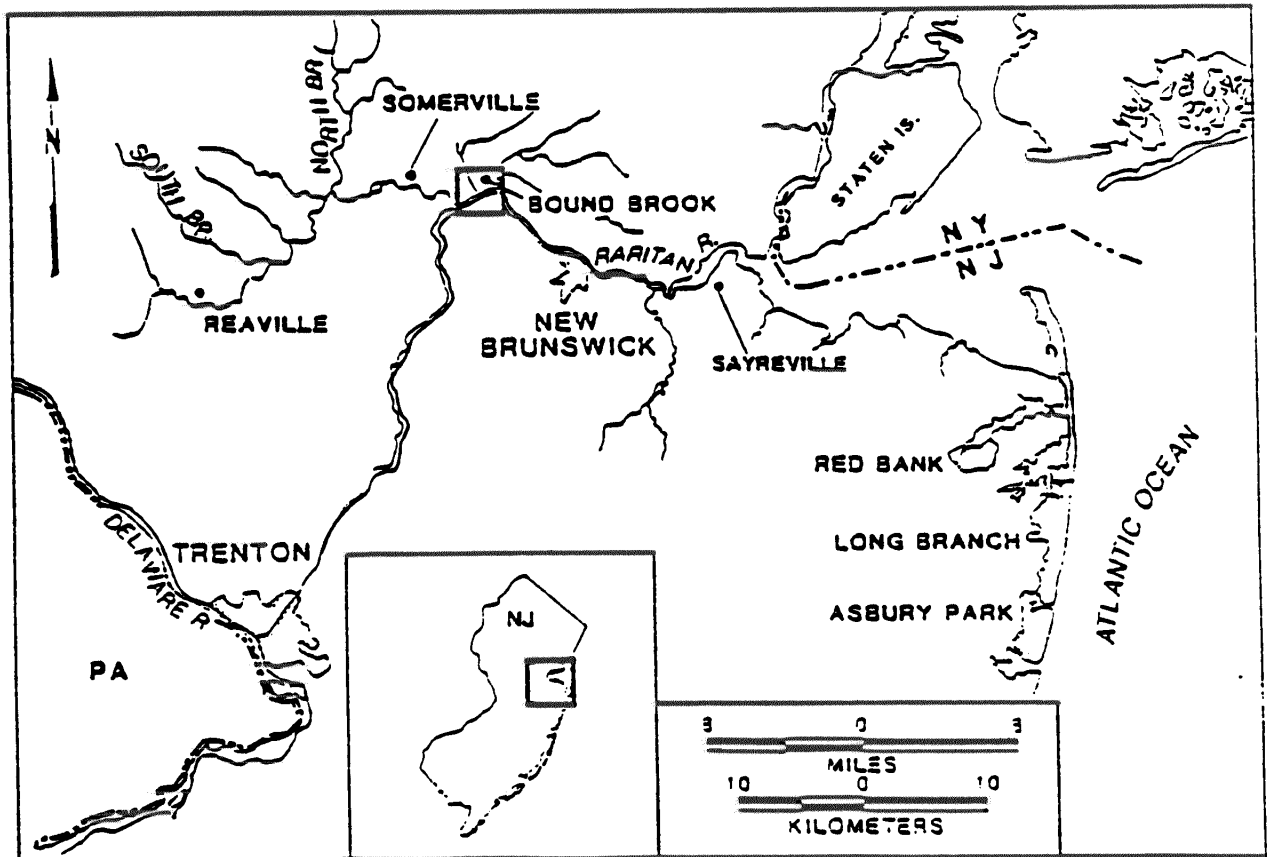
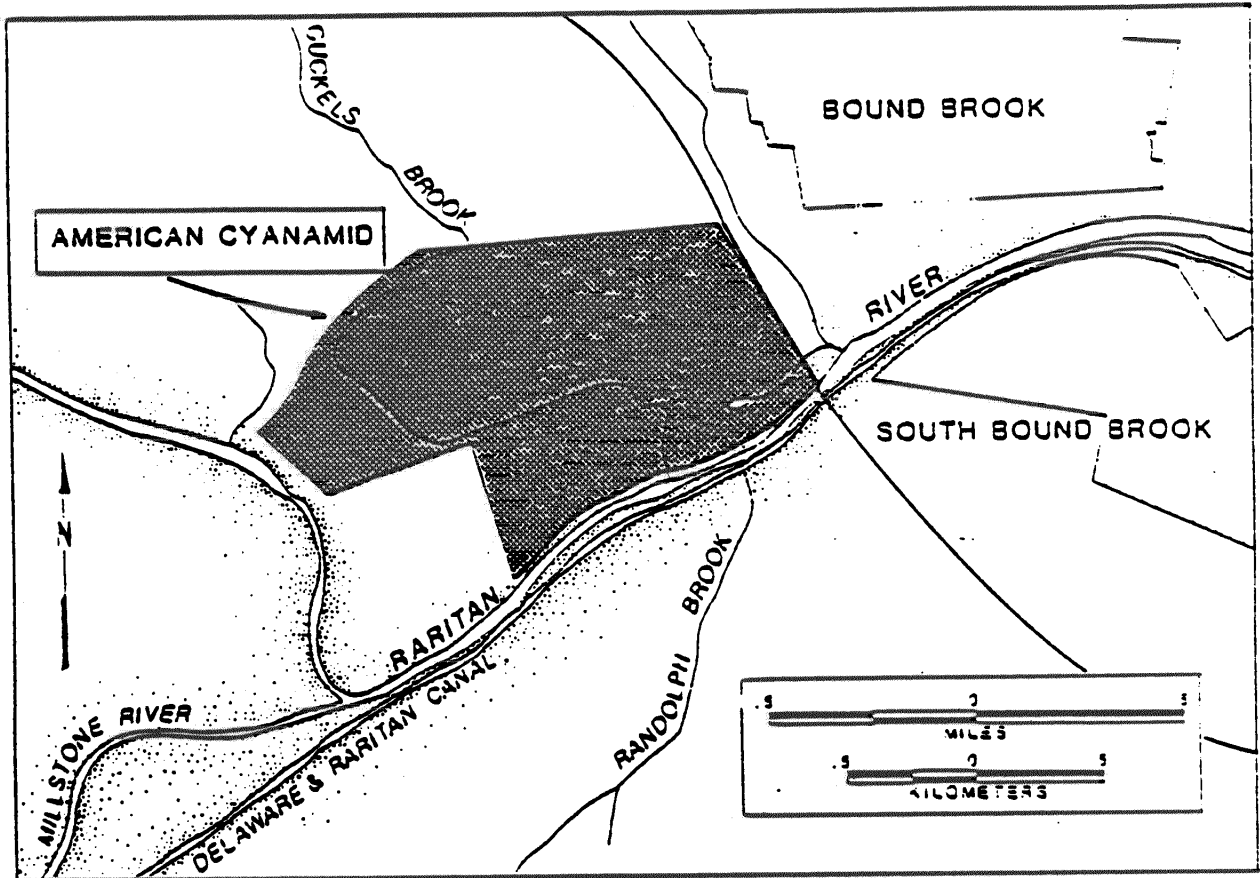
The lagoons are a potential source of ground- and surface water contamination due to percolation and mixing with storm water. The groundwater beneath the site is severely contaminated with organic chemicals. The potential spread of contamination into nearby wells and surface water is of concern, and there are at least 20 private wells in the immediate area in jeopardy. Offsite contaminant migration is currently limited by groundwater pumping.

### **Proximity of Chemical Hazard to Marine Resources**

The New Jersey Department of Environmental Protection (DEP) sampled the Raritan River and could not demonstrate any significant migration of contaminants from the site to the river. A few contaminants in the river near the site were detected in the parts per billion (ppb) range but these may be coming from upstream.

However, inactive lagoons at American Cyanamid are located in the Raritan River flood plain and may release contaminants during extreme flood stages.

The New Jersey DEP Office of Enforcement has issued an Administrative Order to American Cyanamid. Under the terms of this



Order, the company maintains a groundwater flow gradient toward the facility by a high rate pumping system.

### **Marine Resources at Risk**

The site is located adjacent to the Raritan River approximately 18 kilometers upstream of the confluence of South River at Sayreville, New Jersey. The region of the Raritan River at Sayreville is characterized by estuarine habitats important as spawning and nursery grounds for numerous marine organisms. The first weir-type dam on the Raritan River is the Fieldsville Dam located approximately 6.5 kilometers upstream of New Brunswick. This dam has been breached and is not a barrier to fish migrations. The Delaware-Raritan Canal enters the Raritan River in the vicinity of New Brunswick.

The Raritan River, in the vicinity of the American Cyanamid site, has historically been a spawning area for alewife, blueback herring, striped bass, and American shad. Presently, this section of the river is marginally important as a recreational resource with little freshwater fishing activity. A few striped bass and blueback herring are caught in the lower sections of the river above Sayreville, New Jersey, and blueback herring are known to spawn above Sayreville. Striped bass juveniles originating from Hudson River stocks do migrate up the Raritan to Bound Brook. Some adult alewife are also present in the river up to Bound Brook but spawning has not been observed recently.

The New Jersey Department of Fish and Game has been conducting a restoration program for American shad in the Raritan River above Bound Brook since 1980. Adult American shad are captured in the Delaware River and transported to the north and south branches of the Raritan River for stocking. Each river branch has weir-type dams occurring intermittently. Although each dam is an obstruction to upstream migrations, fish are able to pass over these dams on downstream migrations. None of the dams currently have fish ladders. The intent of this program is to re-establish spawning runs in the river. As of 1985, there has been no evidence of shad return runs or spawning as a result of these efforts.

## Site Chronology

- 1935 American Cyanamid begins operations at this location.
- June 1979 Operation of a new on-site incinerator for newly produced sludge.
- Jan. 1982 New Jersey DEP issues an Administrative Consent Order to American Cyanamid to perform a site evaluation and maintain a groundwater pumping rate that would prevent offsite contamination migration.
- Sept. 1982 EPA Hazardous Ranking System Report completed.
- July 1983 Report that American Cyanamid is maintaining sufficient pumping to prevent offsite migration of contamination.

NOAA Reviewer: Gary Ott, SSC NOAA Hazardous Materials Response Branch  
EPA Contact: Ray Basso, Chief, New Jersey Site Investigation and Compliance Section  
State Contact: Greg Cunningham, Project Officer

## References

- CERCLA Implementation Report, 1984. U.S. Environmental Protection Agency, Region II, Hazardous Waste Site Branch.
- Cunningham, Greg, 1985. Personal Communication. New Jersey Department of Environmental Protection.
- Hazardous Ranking System Report (HRS), 1982. U.S. Environmental Protection Agency Region II.
- Hazardous Waste Site Report, 1983. New Jersey Department of Environmental Protection.