STATEMENT OF BASIS/FINAL DECISION AND RESPONSE TO COMMENTS SUMMARY

REGION V
ID# 0248

GENERAL ELECTRIC COMPANY

Coshocton, OH
Signed November 27, 1993

Facility/Unit type:	**Manufacturing of electromaterials**
Contaminants:	**Arsenic, barium, iron, manganese, copper, cadmium, chromium, lead, PAHs, phenols**
Media:	**Soil, ground water**
Remedy:	**Excavation, consolidation, onsite disposal, soil capping, ground-water monitoring**

FACILITY DESCRIPTION

In 1987, EPA issued an Administrative Order by Consent which required General Electric to perform a RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) at the Coshocton, OH site. The RFI was completed in 1991, and its results were used as a basis for developing, evaluating, and recommending corrective action alternative measures which were presented in the CMS. The CMS was completed in February 1993.

The General Electric Company site is an electromaterials facility located on approximately 100 acres in Tuscarawas County, in the southwest portion of Coshocton, OH. In operation since 1946, the facility primarily manufactures plastic- and copper-clad fiberglass laminates. Located on the Muskingum River, the facility is surrounded in the immediate area by residential, agricultural, manufacturing, and commercial properties. The units investigated in the CMS include four temporary container storage areas (unit A), a storage tank (B), a copper scrap storage area (C), an inactive landfill (D), an inactive surface impoundment (E), and an incinerator cage area (F). Soil samples taken from the units indicated the presence of various contaminants, including polycyclic aromatic hydrocarbons (PAHs), arsenic, cadmium, chromium, copper, iron, manganese, lead, and phenols.

The uppermost aquifer underlying the GE site is a high-yielding water table aquifer in the alluvial sand and gravel deposits of the Muskingum River Valley. The unconsolidated sand and gravel deposits are approximately 100 feet thick. Under normal river flow conditions, there is a net southwesterly ground-water flow direction in the alluvial aquifer, with discharge to the Muskingum River.

Domestic wells are located 350 to 400 feet east of the site. These wells have been tested by the Ohio EPA and found to be free from contaminants that could theoretically have migrated upgradient from the facility. The city of Coshocton operates a wellfield approximately 2.8 miles north, upgradient of the plant site. There are no municipal wells currently tapping the segment of the aquifer near the GE site.

EXPOSURE PATHWAYS

The primary exposure pathways arise from the potential migration of hazardous constituents from soil and landfill waste to ground water, from soil to surface water by overland runoff, from ground water to surface water, and into air by volatilization or by suspension of soil. The primary human population of concern are employees who may come into contact with contaminated soil at the facility. The primary routes of exposure to contaminants in the soil are incidental ingestion, dermal contact and inhalation.

SELECTED REMEDY

For units A and B, no corrective action alternatives were assessed due to low concentrations of hazardous constituents. For the contaminated soil in units C, E, and F, the selected remedial action will consist of the excavation of approximately 4,800

CONTAMINATION DETECTED AND CLEANUP GOALS

Media	Estimated Volume	Contaminant	Maximum Concentration	Action Level	Cleanup Goal* (mg/l)	Point of Compliance
ground water		arsenic	49mg/l	0.05	0.05	
		barium	6.89	2.00	2.00	
		chromium	0.015	0.10	0.05	
		lead	0.112	0.015	0.015	
		phenol	0.035	-	20.0	
soil		cadmium	7.7mg/kg			
		chromium	42			
		lead	90			
		PAHs	27.08			

*Action levels based on SDWA MCLs

cubic yards of contaminated soil. The excavated soil will be disposed of within the closed landfill area (unit D). For landfill unit D, the proposed remediation will consist of constructing a fence around the landfill; capping the 3.2 acre landfill using a 24-inch thick low permeability barrier layer, a one-foot thick lateral drainage layer, and an 18-inch thick vegetative cover; monitoring ground water in the vicinity of the landfill; and implementing deed restrictions. For contaminated ground water, deed restrictions will prohibit the installation or use of wells where barium or arsenic concentrations exceed Federal water quality standards. In addition, a new ground-monitoring program will be initiated. If semi-annual monitoring should indicate an increase in levels of contaminants or migration of the contaminants offsite, a decision will be made on instituting more active remedial measures.

The total combined capital cost for this project is $1,125,000. The total present worth cost of the project is $1,200,000, with an annual O&M cost of $36,600.

INNOVATIVE TECHNOLOGIES CONSIDERED

None.

PUBLIC PARTICIPATION

A public comment period was held from March 30, 1993 to April 29, 1993. EPA received no comments and therefore the selected remedy was not modified.

NEXT STEPS

GE will proceed with implementation of the selected remedy.

KEYWORDS
ground water; dermal contact, ingestion, inhalation;organics, PAHs, phenol, inorganics/heavy metals, arsenic, cadmium, chromium, lead; capping, excavation, institutional controls, monitoring, onsite disposal

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