Standard Auto Bumper Corporation Hialeah, Florida Region 4 FLD004126520

Site Exposure Potential

The Standard Auto Bumper Corporation site occupies 0.3 hectares in an industrial area of Hialeah, Florida (Figure 1). Since 1959, Standard Auto Bumper has used trace metals, acids, and caustics for electroplating automobile bumpers, furniture, and other objects on the site. Facilities on-site include one main building, a process-water treatment facility, a septic tank/percolator pit connected to a drainfield system, and a groundwater well. From 1959 to 1972, wastewater from electroplating and stripping processes was discharged into



Figure 1. The Standard Auto Bumper Corporation site in Hialeah, Florida.

ditch between the site and railroad tracks next to and west of the site. The wastes were commonly seen traveling up to 120 meters north in this ditch, eventually percolating into the ground. From 1972 to 1979, the company treated its plating waste by reducing

hexavalent chromium to trivalent chromium before discharging it into the septic tank/drainfield system. Since 1972, metal-containing sludges have been shipped off-site to an approved hazardous waste facility. Since 1979, the treated wastewater has been discharged into the Hialeah sewer system. Various remedial and monitoring measures for the site are under consideration, including removing contaminated soils, excavating the drainage ditch, and installing a series of groundwater monitoring wells (Young 1988).

Red Road Canal runs north-south 90 meters west of the site on the far side of railroad tracks and Red Road, a five-lane highway. Red Road Canal flows south 2.5 km to the Miami Canal. The Miami Canal flows 6 km southeast into the Miami River, which flows southeast another 7 km into the Atlantic Ocean. Since there are no culverts under the tracks or Red Road near the site, surface water is unlikely to migrate directly from the site to Red Road Canal.

There is groundwater beneath the site in the gravel and sand of the upper Biscayne aquifer, three meters deep and below. This gravel and sand is underlain by the highly permeable limestone bedrock of the Biscayne aquifer below depths of 12 meters. Regional deep groundwater flow is towards the east (seaward).

Possible contaminant migration pathways to NOAA trust resources include groundwater discharge to Red Road Canal (NUS 1987).

Site-Related Contamination

Contaminants of concern to NOAA at the site include chromium, copper, nickel, and lead (Table 1). High levels of all four trace metals were found in on-site surface and subsurface soils, and groundwater. Groundwater concentrations were well above AWQC for the protection of saltwater aquatic life. There were no data available about contaminant concentrations in any of the canals near the site.

Table 1. Maximum concentrations of selected contaminants at the Standard Auto Bumper site (NUS 1987); AWQC for the protection of saltwater aquatic life (EPA 1986); soil concentrations for mg/kg and water concentrations in µg/l.

	Surface	Sub-surface		AWQC				
Contaminant	Soils	Soils	Groundwater	Acute	Chronic			
chromium	8,300*	1,600	16,000	1,100	50			
copper	9,000*	840*	6,300*	2.9	2.9			
nickel	24,000*	3,100	34,000	75	8.3			
lead	260*	120*	810*	140	5.6			
* Estimated value, presence of contaminant verified								

NOAA Trust Habitats and Species in Site Vicinity

Red Road and Miami canals do not have any habitats used by NOAA trust resources. Habitats of interest to NOAA include Miami River, which is the lower 5 km of the Miami Canal, and Biscayne Bay. The Miami River is a mid-salinity estuarine habitat. Biscayne Bay is an estuarine system with numerous species using its diverse habitats (Table 2). This bay has a number of federally protected species, including the endangered Kemp's Ridley sea turtle and leatherback sea turtle; and the threatened green sea turtle and loggerhead sea turtle (USFWS 1980).

Species	Breeding Area	Nursery Area	Adult Area	Recreational Fishing	Commercial Fishing	
INVERTEBRATES						
shrimp		Х	Х	Х	Х	
spiny lobster		X	X	X	X	
stone crab		X	X	X	X	
FISH						
bluefish		Х	Х	Х		
Florida pompano			X	X		
arouper		Х	X	X		
mullet	Х	X	X	X	Х	
red drum		Х	Х	Х	Х	
snapper		Х	Х	Х		
spotted seatrout		Х	Х	Х	Х	
MISCELLANEOUS						
green sea turtle			Х			
Kemp's Ridley sea turtle			Х			
leatherback sea turtle			Х			
loggerhead sea turtle			Х			

Table 2. Selected NOAA trust resource use of Biscayne Bay (USFWS 1980).

Response Category: Federal Enforcement Lead

Current Stage of Site Action: RI/FS Workplan

EPA Site Manager

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References

EPA. 1986. Quality Criteria for Water. Washington, D.C.: Office of Water Regulations and Standards, Criteria and Standards Division. EPA 440/5-86-001.

NUS. 1987. Draft Expanded Site Investigation, Standard Auto Bumper Site, Hialeah, Florida. 1987. Atlanta: U.S. Environmental Protection Agency, Region 4.

USFWS. 1980. Gulf coast ecological inventory: Miami, Fl. Washington, D.C.: U.S. Fish and Wildlife Service. 1:250 000 scale map. 25080-A1-EI-250.

Young, N. 1988. August 15, 1988 letter to Dolores Smith, Florida Department of Environmental Resources Management. Miami: AB2MT Consultants, Inc.