STATEMENT OF BASIS/FINAL DECISION AND RESPONSE TO COMMENTS SUMMARY

REGION VIII
ID# 6133

USX/Geneva Steel

Vineyard, Utah
(signed October 27, 1992)

Facility/Unit Type: Steel manufacturing
Contaminants: VOCs, heavy metals
Media: Ground water, soil
Remedy: Impoundments were capped and closed; ground water corrective action-pump and treat; ground water collected by interceptor trench and processed at the on-site biological wastewater treatment plant

FACILITY DESCRIPTION

The State of Utah issued a RCRA post-closure permit containing Corrective Action provisions to USX/Geneva Steel (USX) on November 9, 1989 pursuant to Section 3004(u) of RCRA. The permit required USX to complete an on-site and off-site investigation to determine the nature and extent of contamination from three hazardous waste surface impoundments located at USX's Vineyard, Utah facility and to evaluate cleanup alternatives.

The Vineyard facility is surrounded by land used for agricultural, residential, and business purposes. Utah Lake is approximately 2,500 feet west of the surface impoundments and is used for recreational purposes such as fishing, swimming, and water skiing. Depth to groundwater is approximately 9 feet. The groundwater has limited agricultural use.

USX had interim status for the surface impoundments operations. On November 9, 1988, USX lost interim status and was required to submit a closure plan and a post-closure permit application. During previous closure activities, the impoundments were capped and additional monitoring wells were installed. Closure activies were completed in August 1991.

EXPOSURE PATHWAYS

Ground-water contamination has migrated approximately 600 feet downgradient from the area of the impoundments. Utah Lake lies 1/2 mile downgradient from the impoundment area. Human exposure to the ground-water contamination is not likely to occur because the selected remedy will contain the contamination.

SELECTED REMEDY

Contaminated ground water will be treated by collecting the ground water in an interceptor trench and then processing the ground water at an on-site biological wastewater treatment plant The treated ground water will be discharged to Utah Lake pursuant to a NPDES discharge permit. The residues from the treatment plant will be sent to a permitted hazardous waste landfill for disposal. In addition, the cap will remain over the impoundment area. USX selected to close the impoundment in-place because a clean closure would not be possible and would not be cost effective.

CONTAMINATION DETECTED AND CLEANUP GOALS

Media	Estimated Volume	Contaminant	Maximum Concentration (ppb)	Action Level (ppb)	Cleanup Goal (ppb)	Point of Compliance
ground water	not given	1,1-Dichloroethane	6	1	1	Vertical surface of the downgradient boundary of the Waste Management Area
		1,1-Dichloroethylene	33	7	7	
		1,1,1-Trichloroethane	340	200	200	
		2-Picoline	39,000	5	5	
		2-4-Dimethylphenol	4.6	5	5	
		Acetone	380	100	100	
		Acetonitrile	600	100	100	
		Acetophenone	17,000	10	10	
		Aniline	250	10	10	
		Benzene	21,000	5	5	
		Ethylbenzene	26	2	2	
		Methylene Chloride	10	5	5	
		N-Nitrosomorpholine	10	10	10	
		Naphthalene	250	10	10	
		o-cresol	11	10	10	
		p-cresol	21	10	10	
		Phenol	120	1	1	
		Pyridine	250,000	5	5	
		Toluene	3,100	2	2	
		Xylene	540	5	5	
		Arsenic	280	50	50	
		Barium	560	1,000	1,000	
		Beryllium	12	3	3	
		Chromium	120	50	50	
		Cobalt	250	70	70	
		Cyanide	480	40	40	
		Lead	100	50	50	
		Nickel	380	50	50	
		Tin	4,000	8,000	8,000	
		Vanadium	160	80	80	

The costs associated with the implementation of the selected remedy include $1.8 million for cap closure and $1.2 million for trench installation.

The trench installation was completed in March 1993. Groundwater cleanup is expected to begin in April 1993.

The soils from trench installation will be sampled and disposed of as necessary. The biological wastewater treatment plant has a NPDES discharge permit for Utah Lake. Residues from the treatment plant are disposed of at a permitted hazardous waste landfill.

The selected remedy does not address all site conditions because the site was closed as a landfill and removal of all contaminated material from the impoundments was not complete.

INNOVATIVE TECHNOLOGIES CONSIDERED

None.

PUBLIC PARTICIPATION

Public meetings were held on June 13, 1989 in Salt Lake City and Orem, Utah. A total of 136 comments were received from nine meeting attendees in Salt Lake City and 22 attendees in Orem.

NEXT STEPS

An RFI is now in the Phase I information gathering stage for approximately 120 SWMUs. Ground water sampling and analysis will be implemented during the CMI determine whether the cleanup goals have been achieved.

KEY WORDS
ground water, soil; ingestion; VOCs, heavy metals; ground-water extraction, capping, on-site biological treatment

CONTACT
Mindy Mohr
U.S. EPA, Region 8 (8HWM-HW)
999 18th Street
Denver, Colorado 80202-2405
(303)293-1840