STATEMENT OF BASIS/FINAL DECISION AND RESPONSE TO COMMENTS SUMMARY

REGION II
ID# 6276

Bell Aerospace Textron

Wheatfield, NY
(Signed September 11, 1992)

Facility/Unit Type:	**Aerospace/defense hardware and systems manufacturing and testing**
Contaminants:	**Trichloroethylene (TCE); Vinyl Chloride; 1,1,1-Trichloroethane (1,1,1-TCA); Total VOCs; Acetone; Chloromethane; 1,2-Dichloroethene (1,2,-DCE); Chloroform; Methylene Chloride; Benzene; 1,1-Dichloroethane (1,1,-DCA); Carbon Disulfide**
Media:	**Ground water**
Remedy:	**Pump and treat for off-site contamination, Control/containment and on-site water treatment for on-site contamination**

FACILITY DESCRIPTION

EPA issued a Corrective Action Permit to Bell Aerospace Textron (BAT) pursuant to Section 3004(u) of RCRA. The permit required BAT to complete an on-site and off-site investigation to determine the nature and extent of contamination from a number of SWMUs located within BAT's Wheatfield Facility and to conduct a CMS to evaluate cleanup alternatives.

The Wheatfield Facility is located adjacent to the Niagara Falls International Airport, near the western boundary of the town of Wheatfield. The facility was used to research, develop, test, and manufacture defense-oriented hardware and systems. Thirty-six SWMUs have been identified at the facility, twenty of which were used to manage hazardous waste.

The SWMU of primary concern is a 100-foot by 60-foot area in the northeast corner of the facility that was used from 1948 until 1984 as a surface impoundment to collect wastewater from rocket engine test firings, storm water run-off, cooling water, and coal gasification wastes. The surface impoundment was filled with compacted clay in the 1980s after the liquid and sludge were removed. Contaminated soil has also been removed from other SWMUs at the facility.

The facility is underlain by a highly fractured rock matrix with uniform coerce sand and gravel seams. The formation is conducive to ground-water flow with an estimated transport velocity between 0.02 ft/day to 0.2 ft/day. Some of the ground water discharges to Bergholtz Creek located 0.25 miles to the south of the facility.

BAT conducted an RFI and a CMS which involved taking samples of the ground water, the soil at various SWMUs, and the stream water and sediment at Bergholtz Creek. The sampling revealed surface-water contamination, potential soil contamination, and an extensive plume of contaminated ground water emanating from the area of the former surface impoundment that has reached off-site into a residential area.

The facility has divided its cleanup efforts into two phases and is addressing the off-site plume first. BAT has been targeted for full remediation in the Niagara River Toxics Management Plan. Studies have reported BAT as one of the largest contributors of toxic loadings to the Niagara River.

CONTAMINATION DETECTED AND CLEANUP GOALS

Media	Estimated Volume	Contaminant	Maximum Concentration (ug/l)	Action Level	Cleanup Goal (ug/l)	Point of Compliance
ground water		1,1,1-TCA	51,000.00		5	
		TCE	1,100,000.00		5	
		Total VOC	2,551,000.00		100	
		Acetone	17,000.00		50	
		Chloromethane	4,800.00		5	
		1,2-DCE	28,000.00		5	
		Chloroform	580.00		50	
		Methylene Chloride	1,500,000.00		5	
		Benzene	2.00		ND	
		1,1,-DCA	16.00		5	
		Carbon Disulfide	250.00		50	
		Vinyl Chloride	160.00		2	

ND Indicates that contaminant will be cleaned up to the point of no detection.

EXPOSURE PATHWAYS

Actual or threatened releases of hazardous constituents from the facility, if not addressed, may present a current or potential threat to human health and the environment. The plume of contaminated ground water emanating from the area of the former surface impoundment extends about 5000 feet to the southeast of the point of origin and is about 3500 feet wide. The plume has migrated into a residential area and allegedly contaminated five private wells, one of which is used as a drinking water supply. BAT has decommissioned 21 private wells in the area. In addition, water and sediment samples at Bergholtz Creek have revealed elevated levels of contaminants. The creek receives ground-water discharge from the BAT facility.

SELECTED REMEDY

Six ground-water extraction wells located in a north to south line within the contaminated plume, but not within the facility or site grounds will recover the contaminated ground water and pump it via a pipe to the Niagara Waste Water Treatment Plant. Periodic field and laboratory analysis of the extracted ground water will be taken to check the performance of the system and to verify treatment standards.

Within facility grounds, a series of ground-water extraction wells will be set up to capture dissolved phase contaminants and contain the DNAPL product through hydraulics. The captured ground water will be pumped to an on-site treatment plant consisting of a phase separator, filter, air stripper, thermal oxidizer, and neutralization tank. The treated water will then be discharged to a POTW.

INNOVATIVE TECHNOLOGIES CONSIDERED

Innovative technologies evaluated were biological treatment, thermal destruction (fluidized beds), and in-situ treatment (bioreclamation, aeration, permeable treatment beds, chemical reaction).

PUBLIC PARTICIPATION

Public participation has taken place only for the proposed off-site remedy. The public comment period extended from September 18, 1991 through November 4, 1991. A public meeting was held on October 2, 1991 in Niagara Falls, and a public hearing was held on October 23, 1991 in Wheatfield. BAT submit-

ted a large number of comments challenging the statutory and regulatory authority of a number of the provisions in the permit, and objecting to the terms and language used in the permit. EPA responded to all of the comments, which led to very minor changes.

NEXT STEPS

The CMI approved for on-site remediation is projected for June 1993 and the remediation is scheduled to be operational by January of 1994. Physical containment (through slurry walls, tile drains, grout curtains and intersecting piles) of the contaminated ground water located on-site is retained for consideration if hydraulic control is not achieved with the off-site extraction wells.

KEY WORDS
ground water; ingestion, dermal contact; VOCs; filtration, air stripping, phase separation, thermal oxidation, NAPL, DNAPL pesticides, neutralization, POTW

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