

**United States Environmental Protection Agency
Region I
POLLUTION REPORT**

Date: Thursday, January 24, 2008

From: Gary Lipson

To: Cathy Young, US EPA

William Lovely, EPA Region 1 - EPRB

Subject: Roosevelt Drive Oil Site
140 Roosevelt Drive, Derby, CT
Latitude: 41.3228000
Longitude: -73.0958000

POLREP No.:	15	Site #:	696
Reporting Period:		D.O. #:	ERRS Task Order #: 0042
Start Date:	8/25/1994	Response Authority:	OPA
Mob Date:		Response Type:	Time-Critical
Demob Date:		NPL Status:	
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:		Reimbursable Account #	01R0X08302D91CHRZ108
FPN#	014504		

Site Description

The site is located on the eastern bank of the Housatonic River along Route 34 (140 Roosevelt Drive) in Derby, CT. The Site is bordered by the River to the west and south, Route 34 and a canal to the east and the Derby Cellular Products facility to the north. The facility which was constructed along with the canal at the turn of the 20th century has served as a hydroelectric plant since its inception. It is currently non-operational due to the continuing presence of subsurface oil migrating out from under the facility into the river. The On Scene Coordinator (OSC) has had numerous conversations with the turbine owners about working together to get them back on line.

Due to the leaching of oil from the facility property into the river in the summer of 1994, EPA opened Federal Pollution Number (FPN) 014504 with the National Pollution Fund Center (NPFCC) Case Officer and prepared a Pollution Removal Funding Authorization (PRFA) which was issued to the DEP to initiate cleanup operations. Subsequent activities included the removal of oil saturated sediment and approximately 10,000 gallons of free product and the installation of an oil recovery well system. This system (Derby-1) is still operating and recovering oil on an intermittent basis.

In 1999, new reports of oil sheening on the river were reported, apparently emanating from the tailrace of the facility. Additional efforts to recover oil from the source area began that year with the installation of a second oil recovery system (Derby-2) consisting of five recovery wells within an interceptor trench. Although the wells are continuously recovering subsurface oil, there has still been significant sheening emanating from the tailrace. A recently constructed sandbag dam and an oil skimmer within the tailrace are used to contain the oil and prevent it from reaching the river.

Current Activities

EPA's clean-up contractor, Shaw E & I, is continuously conducting operation and maintenance (O & M) on the two oil recovery systems as well as the newer oil skimmer within the tailrace including repairing or replacing pumps, heaters, motors, belts, hoses, bag filters, and computer software.

During the summer of 2007, the OSC began working with the Tennessee Valley Authority (TVA) to subcontract an engineer with expertise in horizontal well design. Since there has been difficulty in installing traditional vertical wells due to the footprint of the building and the amount of concrete in the foundation, horizontal wells are being considered a possible alternative for additional oil extraction. In June, 2007, representatives of the TVA visited the site for their initial tour.

In July and August, 2007, additional vertical monitoring wells were installed in an effort to further delineate the oil plume for the purpose of future horizontal well design.

In September, 2007, the OSC met at the site with TVA and a design engineer with many years of

horizontal well experience to discuss potential options for oil extraction. The engineer requested background data and information to begin the design process. Additional measurements and surveying data was provided and additional work was scheduled to fill in data gaps. The engineer will determine if horizontal well installation is a feasible option to mitigate the threat to navigable water of the US. If it is determined to be feasible, the engineer will provide well specifications and modeling data to assist in the future installation of the wells.

Planned Removal Actions

The EPA is continuing to work with the engineer on the design of horizontal wells, which if shown to be feasible would extend from the source area through the plume. Ideally, the wells would act as a preferential pathway, moving the oil to a collection point, which may be the tailrace or a new recovery well/trench.

Concurrent with the well design work as described, the turbine owners are working on a design that will allow them to get the power producing turbines up and running. They will be working with the EPA and EPA’s contractors to incorporate the design work, which will allow for power generation and continued oil collection.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
CT DEP PRFA	\$5,000,000.00	\$5,000,000.00	\$0.00	0.00%
TVA PRFA	\$45,000.00	\$10,000.00	\$35,000.00	77.78%
RST/START	\$71,400.00	\$53,000.00	\$18,400.00	25.77%
REAC	\$85,000.00	\$50,000.00	\$35,000.00	41.18%
ERRS	\$2,425,000.00	\$1,700,000.00	\$725,000.00	29.90%
Intramural Costs				
USEPA	\$300,000.00	\$115,000.00	\$185,000.00	61.67%
Total Site Costs				
	\$7,926,400.00	\$6,928,000.00	\$998,400.00	12.60%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

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