

United States Environmental Protection Agency
Region I
POLLUTION REPORT

Date: Thursday, June 28, 2007

From: Gary Lipson

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

POLREP No.:	14	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 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 (NPFC) 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 including repairing or replacing pumps, motors, belts, hoses, and computer software. They have also been backwashing the carbon vessels and replacing carbon as necessary within the groundwater treatment train; and collecting and disposing of contaminated boom, snare, and absorbent pads.

In February and March, 2007, Shaw completed the construction of a dam which was placed to effectively cut off the tailrace from the Housatonic River. WestonSolutions, Inc., EPA's Superfund Technical Assistance and Response Team (START) contractor, was used to provide design specifications for the dam. After minor excavation and grading of the tailrace floor, the dam was constructed with "supersacks" (large sandbags measuring approximately 3' x 3' when filled) placed in a pyramid configuration, smaller sandbags, polyethylene sheeting, geotextile fabric, and riprap. Upon completion of the dam, the sides of the raceway were stabilized with additional concrete blocks.

In March, 2007, a 5,000 gallon frac tank was added to the groundwater treatment train (Derby-2

system). This was done to settle out any oil inadvertently being pumped into the system with the groundwater and to reduce any iron precipitation that has been clogging the carbon vessels.

In April, 2007, a major New England storm raised the level of the Housatonic River significantly and completely submerged the facility tailrace. The two existing oil recovery systems were largely unaffected, although a pump being used to dewater the tailrace was damaged and needed to be replaced. In addition, a number of the existing on-site monitoring wells were gauged for oil thickness and compared to past readings.

At the request of the EPA OSC, the USCG NPFC raised the FPN ceiling by \$1.7 million to a new total of \$8,447,800.

In May and June, 2007, a tube type oil skimmer was installed to retrieve oil from the surface water of the tailrace. The skimmer was placed on a pad above the race with an adjacent oil storage tank. The constantly moving tube hangs from the skimmer into the race and is directed through the race via guides and runners installed by Shaw. As the tube is drawn back up into the skimmer unit, it brings the oil up with it, which is scraped off of the tube and then flows into the storage tank. In addition, the tailrace was dewatered on a number of occasions and the walls and pipes within the race were pressure washed to remove years of oily buildup. The oil was picked up by the skimmer.

Planned Removal Actions

The EPA OSC is making arrangements to procure the services of a horizontal well design engineer to conduct on-site tests and assess current conditions. 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.

The above mentioned well specifications will be used to guide the design and installation of horizontal wells, which 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.

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