

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

Date: Thursday, September 4, 2008

From: Matthew Huyser

To: Shane Hitchcock, USEPA

Chris Bodin, Florida DEP

Subject: Final POLREP

BCX

1903 EAST ADAMS STREET, Jacksonville, FL

Latitude: 30.3221517

Longitude: -81.6308534

POLREP No.:	8	Site #:	A4FE
Reporting Period:	07/24/2008	D.O. #:	
Start Date:	12/17/2007	Response Authority:	CERCLA
Mob Date:	1/22/2007	Response Type:	
Demob Date:	7/24/2008	NPL Status:	Non NPL
Completion Date:	8/26/2008	Incident Category:	Removal Action
CERCLIS ID #:	FLD982109761	Contract #	
RCRIS ID #:			

Site Description

The BCX Tank Site (the "Site") was originally owned and operated by International Processing Specialists (IPS) who leased the property in 1987 to operate a wastewater and used oil processing facility. In 2001, BCX became the new owner of the facility. Between 2001 and 2004, BCX removed equipment, containers, piping, and demolished a process building, but no waste was removed from the tanks. In 2004, an inspector with the City of Jacksonville's tanks Program discovered an accumulation of wastewater in the secondary containment area and a crack in the containment wall. Later that year, the city obtained an emergency Temporary Injunction ordering BCX, IPS, related companies, and real property owners to remove waste from the secondary containment, sample wells, and tanks. No action was taken.

On October 10, 2007, EPA signed an Administrative Settlement Agreement and Order on Consent for Removal Action with 16 waste generators who sent waste materials to the site to remove the remaining waste materials from the site and decontaminate the surfaces.

On June 21, 2004, EPA OSC Stilman mobilized to the BCX Tank Site and initiated an emergency response action to address the leaking tanks and waste accumulation in the secondary containment wall. Approximately 1.2 million gallons of waste-water and 1400 tons of sludge were sent off-site for treatment due to high levels of benzene, tetrachloroethene, naphthalene, and other contaminants. Emergency actions were completed in December of 2004.

The Site encompasses approximately 1.1 acres, though the impacted area of tanks and secondary containment covers only 0.4 acres. It is owned by Seven Out LLC, a Florida company affiliated with BCX Inc. of Georgia. Land use near the site is commercial, consisting of terminals, ship yards, and parking lots for Alltel stadium which is located 0.3 miles to the West. The nearest surface water body is the St. Johns River at 0.25 miles to both the East and the South. The waste material is confined to 23 aboveground storage tanks which are positioned in a secondary containment area comprised of a 700 foot long (perimeter), 6 foot high, concrete wall.

The PRP group hired Geosyntec to provide engineering and consulting work throughout the project, and hired Moran Environmental (MER) to conduct the removal action.

Samples were collected by Geosyntec from the rainwater in the secondary containment area and analyzed according to requirements by the City of Jacksonville POTW. The results showed no hazardous substances, and the rainwater was cleared for discharge to the POTW in a written letter sent by the POTW operator. 150,500 gallons of rainwater was discharged from secondary containment to a nearby POTW manway; all subsequent rainwater collected at the Site between February and June of 2008 was recovered and transported off-Site to Water Recovery Inc. (WRI) in Jacksonville, FL for treatment.

MER cleaned and removed debris from the containment area to roll-off bins. The roll-off bins were used to store trash and uncontaminated waste that were transported off-Site to Waste Management's Chesser Island Landfill in Folkston, GA for disposal. The walls and floor of the containment area were pressure washed to remove organic matter and slip hazards. Wash water was collected and sent off-Site to WRI for treatment.

Loose piping and metal equipment was segregated for decontamination and disposal or recycling. Pipes and openings that contained contaminated materials were capped and sealed to prevent spillage. Long pipe sections were cut using a cold cut process and decontaminated using a high pressure washer and degreasing fluid. The decontaminated pipes were then removed to a roll-off container outside of the secondary containment. Wipe samples were not taken from decontaminated piping were sent off-Site for metals recycling and the recycler was made fully aware of the pipe's origins and previous use.

A 10-foot section of the secondary containment wall at the southeast corner was demolished to permit access by small heavy machinery and other equipment. A lip of 12 inches was left to provide some containment of rainwater.

MER cut access holes to all tanks above the material levels using cold cut methods. Access holes were approximately 2 feet in diameter and were used for sample collection and inspection of the material's properties. Sludges in several tanks showed signs of drying with deep wide cracks forming along the surface and water or oily material found in the crevices. Much of the material was unpumpable but was not dry. Access holes released significantly larger amounts sludges in tanks 02 and 101 than were gauged from overhead access points. Tank 02 had been reported to hold 2.5 feet of oily sludge, but it was revealed to have approximately 10 feet of sludge with several inches of oily water at the top. Tank 101 had been reported empty, but the access hole revealed baffled sections that held as much as 3 feet of oily solids.

A marine chemist with Southern Marine Chemists of Jacksonville, FL performed air monitoring and an inspection of all tanks. The chemist issued a hot work permit for tanks 109, 107, 105, 103, 101, 111, 110, 100, 16, 17, 14, 10, 13, 15, and 12 so that torches could be used to cut the tanks apart. A hot work permit was denied for tanks 108, 112, 02, 114, 106, 102, 104, and 115 due to LEL readings above 0%; these tanks were dismantled using "cold-cutting" techniques.

Torch cutting of smaller tanks (109, 105, 103, 101, 111, 110, 100, 16, 17, 14, 10, 13, 15, 12, 108, 112, 114, 102, 104, and 115) involved cutting above the material line and removing the upper portion of the tank. The sludge inside each tank was then covered by a tent of plastic sheeting to prevent rainwater from pooling. The upper portions of the tanks were staged inside the containment area for decontamination; these large pieces were transported off-site for recycling in tact, without further deconstruction.

Sludges inside the smaller tanks were removed using an excavator and manual labor. Sludges in the larger tanks (02, 106, and 107) were removed by cutting a 10 foot wide opening above the waste level, and slowly increasing the size of the opening downward as wastes within reach were removed by an excavator. When the opening reached ground level, a skid steer was driven inside the tank to collect and remove the remaining solids. Air monitoring was conducted daily in all work zones with no exceedances in breathing zones. Employees performing work inside the tanks wore respirators due to high odor levels.

Geosyntec collected sludge samples from tanks 02, 106, and 107 (representing over 85% of the waste on-Site) for a bench-scale experiment of the solidification proposal. Samples were mixed with proportional volumes of bed ash (10%, 20%, 40%) and then sent off-site for TCLP analysis. Results indicated that a 10% volume of bed ash was sufficient to solidify the sludge samples, and no sample yielded exceedances of regulatory thresholds for toxicity characteristics of the waste. As a control for the continuity of solidification operations, and to confirm that the solidified waste had sufficiently cured, paint filter tests were conducted on-Site prior to loading wastes for off-Site disposal.

Sludges from all tanks were solidified on-Site with bed ash and left overnight to cure. Weather conditions were continuously monitored so that solidified wastes could be left uncovered during dry periods for moisture evaporation, and so that they could be covered with plastic sheeting during wet periods to avoid accumulation of additional moisture. Sludges that had been recently removed from tanks were separately staged, then moved to a solidification area where they were mixed with bed ash and allowed to cure for 12 to 24 hours, and finally were loaded into trucks hours for transport off-Site for disposal at Republic Environmental's Broadhurst Landfill in Screven, GA. Trucks transporting the solidified waste were loaded inside the secondary containment area, then decontaminated with pressure washers prior to departure.

Oily liquids from tanks 02, 106, and 107 were collected and segregated in tank 112. A sample was taken

and sent off-Site to a fuel blending facility for evaluation as a possible fuel source. Results indicated a high level of solids and insufficient “melting point” for this purpose. Field-conducted paint-filter testing showed that the solidification of the oily liquid was could be successful and sufficiently dry, so the liquids were solidified with sludge from the tanks and an additional volume of bed ash.

Within the containment area were three shallow groundwater monitoring wells (15 to 25 feet deep) which became obstacles for machinery conducting removal operations. With consent from the property owner, the City of Jacksonville, and FLDEP to confirm that the wells were no longer necessary for future activities, two of the wells were plugged and their casings removed. Partridge Well Drilling of Orange Park, FL was brought on-Site to properly plug and close out the wells. The third well could not be plugged due to an obstruction, however its location was not an obstacle did not need to be addressed.

From information gathered during public interviews, concerns surrounding the site included the presence of intermittent odors and later post-removal conditions. As a result of the odor concerns, local residents were invited to contact the OSC if odors were detected, and air monitoring activities were adjusted to monitor off-Site odors. Regular walk-around inspections of the Site were conducted. No odors were found to migrate beyond the immediate vicinity of the containment wall, air monitoring instruments yielded no changes above background, and no complaints were reported.

When all sludge had been removed from the tanks, and all the smaller tanks had been decontaminated and removed, MER then decontaminated the larger tanks and the entire containment area with pressure washers. Geosyntec collected five rinsate samples on from the tank surfaces and the secondary containment area; the samples were analyzed for metals, VOCs, and SVOCs. All results were below the Maximum Contaminant Levels (MCL) for drinking water and it was determined that they had been adequately decontaminated.

J&J Recycling and Demolition of New Smyrna Beach, FL, mobilized to the Site for demolition of tanks 02, 106, and 107. It was determined that a professional demolition crew would provide the safest method in dismantling the three large tanks (>500,000gallon) at the site. Steel from the three tanks was dismantled and transported off-Site by the demolition company for recycling.

It was confirmed during demolition of tanks 02, 106, and 107 that neither tank had been constructed on a concrete or other impermeable hard surface. As a result, it was determined that the floor of each tank would be left in place to provide a sufficient barrier for the soil below and 1 inch lip was left around the edge of each tank bottom during removal.

MER poured concrete curbing around the edge of each tank bottom to reduce water infiltration between the steel and secondary containment floor. MER also installed concrete filling in several damaged areas of the containment floor and a shallow manhole in the southwest corner of the containment area. Finally, MER installed a chain-link fence across the opening that had been breached in the secondary containment wall for equipment. A sign was later added that listed current emergency contact information for the facility.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Rainwater from secondary containment	150,500 gallons		POTW, operated by JEA (Jacksonville, FL)
Rainwater, decontamination water, oily water, and wash water	181,376 gallons		Water Recovery Inc. (Jacksonville, FL)
Non-pumpable sludges, solidified wastes	1,910.84 tons		Broadhurst Landfill, operated by Republic Environmental (Screven, GA)
Trash, debris, and PPE	6.32 tons		Chesser Island Landfill, operated by Waste Management (Folkston, GA)
Recyclable scrap steel	94.60 tons		Berman Brothers Inc. (Jacksonville, FL)