

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Battery Reclamation, Inc. - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #2
Final
Battery Reclamation, Inc.
A6G1
Pecos, TX
Latitude: 31.4020670 Longitude: -103.5242390

To: Ronnie Crossland, USEPA Region 6
Reggie Cheatham, OEM
Anthony Buck, TCEQ

From: William Rhotenberry, OSC

Date: 3/10/2011

Reporting Period:

1. Introduction

1.1 Background

Site Number:	A6G1	Contract Number:	
D.O. Number:		Action Memo Date:	8/6/2010
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	8/9/2010	Start Date:	8/10/2010
Demob Date:	12/4/2010	Completion Date:	12/4/2010
CERCLIS ID:	TXN988077640	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time-critical removal action

1.1.2 Site Description

BRI is approximately 15.36 acres in size and comprised of four tracts of land, three of which were permitted for industrial solid waste management and an adjacent Five (5) Acre Tract that was permitted for universal waste handling. The original three tracts of land that make up the BRI site consist of the following: an administrative office, a maintenance shop, a Mechanics Shed, a Sorting Building (A-1), a Pyrolysis Unit (A-2), a Hammermill Bldg., (A-3), a Lithium Battery Building (Li), a (TCEQ-permitted, Container Storage Area (CSA), a Top Plant (Z-2), two Saw Plants (Z-1 and Z-3), three warehouses (W-1, W-2, and W-3), a Shipping and Receiving Bldg. (S-1), two fire water tanks, two 18-wheel truck trailers, and two Yards containing numerous supersacks (Yard 1) and two types of wooden crates designated as Taiwan and Holland Crates(Yard 2).

A set of railroad tracks are located in the southern section of the site and separates the BRI process and operational areas from the Five Acre Tract. The railroad tracks enter from the east property line and traverse in a westerly direction towards Warehouse 2. A railroad track spur breaks off from the main line after passing the Pyrolysis Building and proceeds north toward Yards 1 and 2. The railroad tracks are no longer in use. This portion of the site is surrounded by a chain-linked fence and the gates are locked with padlocks. The site is currently inactive or has been inactive since 2005. The exact date when the facility ceased operations and abandoned the facility is not currently known. According to the TCEQ representative, the site was abandoned due to lack of revenue and the breakdown of the hammermill and magnet that separated the processed batteries into ferrous and nonferrous materials.

The chain-linked fence is damaged along Western Avenue, between the Maintenance Shop and Warehouse No. 3. No other site security was observed and documented during the EPA removal site assessment activities. The Five Acre Tract, also known as the "Universal Waste Handler Site", is located in the southeast section of the site. The Five Acre Tract has been divided into sections

A through H. Sections A, C, E, and G contain the drum repackaging and staging area, or Drum Storage Area (DSA), untreated batteries in both Taiwan and Holland Crates, and drums containing the lithium batteries. Sections B, D, F, and H of the Five Acre Tract contain the receiving area, industrial iron (Fe) and nickel-cadmium (NiCd) batteries, zinc-manganese (ZnMn or ZM) and non-ferrous materials (NFe) in Holland and Taiwan Crates, drums containing lime (solids), empty universal waste battery boxes, and Holland Crate lids. This portion of the site is surrounded by a chain-linked fence, which was damaged at the time of mobilization for conducting the removal activities. The Five Acre Tract is accessible from the BRI operational areas, as there is no locked gate between the Five Acre Tract and the BRI operational Areas. The south portion of the Five Acre Tract is located within 500 to 750 feet of Interstate-20. No other site security was observed and documented at the Five Acre Tract during the EPA removal site assessment activities.

1.1.2.1 Location

BRI is located at 2001 Western Avenue near Pecos, Reeves County, Texas, approximately one block northwest of the intersection of Texas Highway 17 and Interstate 20. Geographical coordinates of the site are: 31.402067° N latitude and 103.524239° W longitude. The site is located outside the city limits of Pecos and is situated in an industrial/agricultural sector of southwest Pecos.

1.1.2.2 Description of Threat

According to the TCEQ, the recycling process at BRI generated 35 waste streams, 15 of which are classified as hazardous. Most of the on-site hazardous wastes consist of the different type of spent batteries. Additional wastes generated at BRI include KOH (Potassium Hydroxide) solution (corrosive and hazardous for mercury), Zinc manganese (ZnMn), and ferrous (Fe) and non-ferrous (NFe) materials. The ZnMn, Fe, and NFe materials are considered as Class 1 or 2 hazardous materials. The identified waste streams are currently being stored in high density polypropylene (HDPE) and steel drums, tanks, totes, supersacks, and wooden (Taiwan or Holland) crates located throughout the facility grounds.

Numerous supersacks containing ZnMn, Fe/NFe, LiFeMn and other recycled products were identified in Yard 2, Warehouses 1 – 3, and the Shipping and Receiving Building. The supersacks that were identified in the various buildings appeared to be in good condition; however, those supersacks located outside in Yard 2 were in a deteriorated condition, as they were being exposed to various weather conditions.

Numerous Taiwan and Holland crates were located throughout the site. These crates are being used to store a variety of materials associated with BRI, such as unused and used batteries, unprocessed and processed batteries, Fe materials, NFe materials, Fe/NFe materials, and ZnMn powder, etc. Conditions of the crates vary. Those crates located inside building structures tended to be in better condition than those crates located outside and exposed to the various weather conditions. Numerous crates located in the Five acre Tract had disintegrated and released their contents onto the ground surface.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Solid waste samples were collected from Warehouse 3, Yard 1, and Yard 2, surface soil samples in the area between the Hammermill Bldg (A-3) and the Pyrolysis Unit (A-2); in the north drainage ditch located between the facility fence line and Western Avenue, collected waste samples from the Five Acre Tract DSA, the KOH vats located outside the Sorting Bldg. (A-1), and a drum located inside the TCEQ-permitted CSA. The samples collected from the KOH vats and the CSA were bi-phased.

TCLP analysis of three solid waste samples (SW-YD107-Fe/NFe, SW-YD208-LiFe, and SW-YD209-ZM) collected from Yards 1 and 2 indicated the presence of barium, cadmium, lead, mercury, and silver in concentrations greater than the corresponding laboratory reporting limits; however, the detected concentrations of cadmium and mercury in Sample No. SW-YD209-ZM exceeded the EPA TCLP regulatory limits for those two analytes.

TCLP analysis of seven solid waste samples (SW-9801-ZM, SW-9802-FE, SW-9703-ZM, SW-9704-UN, SW-9905-ZM, SW-9906-LiZM, and SW-9710-ZM) collected from supersacks located inside Warehouse 3 indicated the presence of arsenic, barium, cadmium, chromium, lead, mercury, and silver in concentrations greater than the corresponding laboratory reporting limits. TCLP analysis indicated exceedances of the EPA regulatory limits for cadmium in all seven samples and mercury in six of the seven collected samples, thus, classifying the contents of these supersacks as toxic by 40 CFR § 261.24 (a).

TCLP analysis of six solid waste samples (SW-5AT11-D1, SW-5AT12-H15, SW-5AT13-F12, SW-5AT14-C9, SW-5AT15-DSA, and SW-5AT16-F12) collected from Holland and Taiwan crates located in various sections of the Five Acre Tract indicated the presence of arsenic, barium, cadmium, chromium, lead, mercury, and silver in concentrations greater than the corresponding laboratory reporting limits. TCLP analysis indicated exceedances of the EPA regulatory limits for cadmium four of the six samples and mercury in three of the six samples, thus, classifying the contents of these supersacks as toxic by 40 CFR § 261.24 (a).

TCLP analysis of the two liquid samples (LW-DSA01-KOH and LW-DSA02-KOH) collected from the 35-gallon, poly drum labeled #212 in the Five Acre Tract DSA, indicated the presence of arsenic, cadmium, and lead in concentrations exceeding the laboratory reporting limits. Comparison of the TCLP analytical results to the EPA regulatory limits indicated an exceedance of cadmium. Based

on the TCLP results, the liquid material associated with the sample collected from the 35-gallon, poly drum can be classified as toxic for cadmium by 40 CFR § 261.24 (a). In addition, the samples were analyzed for pH. The pH for the samples was reported as 14.4, which classifies the liquid as hazardous by corrosivity 40 CFR § 261.22 (a) criteria.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

EPA/ERRS mobilized to the site on August 9, 2010, followed by START on August 10, 2010. ERRS began brush and weed clearing, repaired the damaged fence along Western Avenue, began to arrange the supersacks in Warehouses 1 - 3 for waste characterization activities utilizing XRF units. In addition, representatives from two battery recycling companies arrived at the site to determine potential disposal options for the ERRS contractors.

Once the battery powders had been characterized utilizing a combination of XRF screening and laboratory analysis, ERRS began removal/disposal of the material by both truck and railcar. In addition to the battery powders, the following wastestreams were bulked and transported offsite for either disposal or recycling: Unprocessed Batteries, Corrosive Liquids, PCB Oils/Ballasts, Various Paints, Containers of Elemental Mercury and Excavated Soils.

Two onsite buildings (Hammermill, Pyrolysis Building) were demolished as part of the Removal Action. The roof of each building was partially caved in and presented a health and safety concern for workers removing wastes from the buildings. The sheet metal generated from the demolition was sent to a local metals recycler.

Soil characterization began on November 12, 2010. Forty five surface soil samples (0-3") were collected site wide and the results were compared to TCEQ TRRP PCL's for "Tier 1 Commercial Soils 30 Acre Source Area Scenario". Four exceedances were found for mercury after the initial sampling. These areas were excavated and after re-sampling all samples met the guidelines.

All field activities were completed December 4th, 2010 however final documentation of all activities is pending the disposal of four oversized MESP lithium batteries currently being staged at a Toxco facility in Trail, BC Canada.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
Hazardous Battery Powders	Solid	4579 Tons	See Report	Encapsulation	US Ecology/Waste Control Specialists
Non - Hazardous Battery Powders	Solid	4807 Tons	See Report		Charter Waste
Unprocessed Batteries	Solid	1282 Tons	See Report	Recycling	Waste Control Specialists/Raw Materials Inc./Toxco Waste Management
Corrosive Liquids	Liquid	3000 gallons	See Report	Neutralization	Phillips Services Co.
Hazardous PCB Oils/Ballasts, Paint and Mercury	Liquid/Solid	1663 lbs	See Report		Clean Harbors, Raw Materials Inc./
Non Hazardous Ballasts/Mercury Bulbs	Solid	7.5 Tons	See Report		Clean Harbors/Raw Materials, Inc.
Excavated Soils	Solid	2788 Tons	See Report		Charter Waste

2.2 Planning Section

2.2.1 Anticipated Activities

No further onsite activities are anticipated.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

Toxco informed EPA that four of the Lithium batteries shipped to their Canadian facility were MESP Minuteman Missile silo batteries. Toxco cannot accept these type of batteries at this facility and is working on providing an alternate disposal facility.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.