Decontamination/Demolition

Electroplating Lines, Wastewater System &
Electro-Deposition Painting System

Tucker, Georgia

PROJECT MANAGER

JEFF BROWN, CHMM

PERFORMANCE PERIOD

May 2006 to December 2006

CONTRACT VALUE

$ 450,000

PURPOSE

This project required decontamination, demolition, removal and disposal of two electroplating lines, a wastewater treatment system and portions of an electro-deposition painting system at the facility in Tucker, Georgia.

PROJECT APPROACH

GES completed the following scope of work on this project:

Decontamination and Removal of Rack and Barrel Electroplating Systems - Liquids in each plating vat or tank were removed prior to the start of work. GES transferred residual liquids and pumpable sludges in the plating tanks and vats into 55-gallon poly drums. The remaining solids were shoveled and scraped from the tanks and vats and placed into drums.

All tanks, vats, piping, and grating were decontaminated to remove residual plating material and other buildup, dismantled and transported from the site.

Any ductwork attached to the plating line was cut loose using pneumatic metal shears and decontaminated. This allowed access to dismantle and remove the plating equipment, using torches. The scrap metal was transferred to the roll-off staging area with a forklift, sized and placed into roll-offs pending transfer to the metal recycler.

Once the plating equipment was removed, the remaining ductwork, plumbing and framework was decontaminated and dismantled for disposal. All drip pans, plumbing, walkways, hoists and framework were pressure washed to remove any visual contamination, and cut into manageable pieces for either disposal or scrapping.

All ductwork was cut into manageable pieces, and lowered to the floor for decontamination. Once washed, the pieces were sized, if necessary,

and then placed into roll-off containers for either disposal or off site scrapping. Wash water was collected and transferred to the WWTS for processing.

Once all equipment and structures were removed, the floor was scraped and pressure washed, with all rinsate being squeegeed into the pits at the end of the plating lines. The pit contents were pumped to the WWTS, and then the pits were pressure washed and shoveled out. All floor drains and trenches around the plating lines were pressure washed and shoveled out.

Decontamination of Paint Line Dry Off Chamber and Carrier System **-** The Cooling unit was pressure washed with all rinsate pumped to the WWTS for processing, and then the unit was dismantled for disposal using pneumatic shears and safely lowered to the ground for additional sizing and disposal.

Cleaning and Removal of Filter Press Area **-** A containment area was established around the two filter presses to contain all rinsate during decontamination. GES pressure washed both presses, including all plates and support structure, transferring all wash water to the WWTS for processing. The presses were cut apart with torches and placed into roll-offs for disposal or scraping. The press room was pressure washed from the ceiling down, and the floor scraped to remove gross contamination. All solids were containerized for disposal.

Cleaning of Air Compressor Room **-** The air compressor room was cleaned by shoveling any solids into drums, then isolating electrical boxes and components with poly sheeting prior to pressure washing. Floor drains were plugged and a drum vacuum system utilized to collect rinsate from the low spot around the floor drain. The entire system was pressure washed, with solids containerized for disposal and the liquids transferred to the WWTS for processing. Once cleaned, the poly sheeting around the electrical panels was removed. The exterior of the electrical panels and boxes were hand-wiped using rags and degreaser.

Cleaning of Paint System **-** Any remaining contents of the chemical tanks along the Pre-Wash line were pumped to the WWTS for processing, and the tanks themselves pressure washed. A confined space entry was performed to enter and pressure wash the interior of the Pre-Wash system, with all rinsate transferred to the WWTS for onsite treatment. The Water softening unit at the end of the Pre-Wash was washed down (exterior only), and scraped (as directed). A 4,000 gallon pit at the end of the Pre-Wash system was cleaned out and pressure washed, with any rinsate transferred to the WWTS for onsite treatment and solids containerized for disposal.

The Paint Line Dryer was entered under a confined space entry permit and pressure washed to remove residual paint from the interior of the unit. Rinsate and solids were drained to the large tank beneath the system and that tank cleaned by first removing any solids using a vacuum truck, then pressure washing and pumping resulting liquids into drums or tanks for disposal.

Two 18,000-gallon vertical tanks and one 6,000-gallon paint replenish tank were the last components of the Paint line to be cleaned and dismantled. All tanks were decontaminated prior to dismantling, cut into sections and lowered to the ground for additional sizing and disposal.

Decontamination and Removal of Waste Water Treatment System (WWTS) – The Waste Water Treatment System (WWTS) was the final system decontaminated and dismantled, following treatment of wash water throughout this project. Once all other decontamination efforts were complete, GES cut and lowered tank portions to the floor to allow access for solids removal without performing confined space entry,

resulting in more efficient, cost effective solids removal. GES commenced decontamination at the head of the WWTS, working to the discharge end of the system, continually flushing any wash water through the system for treatment. All fiberglass or poly tanks were decontaminated, cut and sized for disposal. Any tanks requested for salvage by the client were decontaminated and set aside by GES. Other miscellaneous equipment (pumps, sand filters, etc.) were decontaminated and disposed of as debris.

The metal sludge thickener and clarifier were decontaminated, with any solids containerized for disposal, then dismantled using torches. Once all tanks were dismantled, the tank mezzanine structure, walkways, catwalks and support structures were decontaminated and cut into manageable pieces using torches.

RESULTS

This time and materials job was completed on schedule and on budget. In addition, there was no lost work time due to accidents. The site facility was successfully decommissioned within the deadline presented by the client.

Rim Line & Wastewater Treatment Plant Decontamination & Dismantlement Walcott, Iowa

PROGRAM MANAGER
JEFF ROTHWELL, CHMM

PERFORMANCE PERIOD
July 2004 to September 2005

CONTRACT VALUE
$ 165,000

PURPOSE
This project required rim line and waste water treatment (WWT) plant decontamination and dismantlement at the facility in Walcott, Iowa

HISTORY
The project site was a fully operating wheel manufacturing facility from 1974 to 2003. The plant manufactured wheels for tractors and heavy equipment. The company consolidated its wheel business segment and closed operations at the Walcott, Iowa site in January of 2004.

PROJECT APPROACH
The scope of the work preformed included:

- Removal of oily sludge waste from seven (7) rim manufacturing press lines. Waste was located in reservoirs in and around each line. Confined Space Entry was required on some of the lines. Approximately 200,000 gallons of oily sludge was removed from the plant.
- Lab packed all small containers of maintenance chemicals for the final transportation and disposal preparation. All small containers were segregated and consolidated into DOT containers, which were properly marked and labeled for transportation and disposal.

- Product removal from the New WWT area: Greenleaf removed virgin chemicals such as sodium hydroxide, sodium metabisulfite, polymer, and sulfuric acid from poly mixing tanks in the New WWT area. Once removed, the site was pressure washed and decontaminated. Additionally, a filter press and the filters were removed from the top of the WWT area. A boom attachment was utilized to safely and efficiently remove the filters. All chemicals were recycled and shipped on Bill of Lading instead of disposed of as a RCRA hazardous waste. Greenleaf also removed and disposed of approximately

8000 gallons of an E-Coat waste from a storage tank. The material was water based and RCRA non regulated.

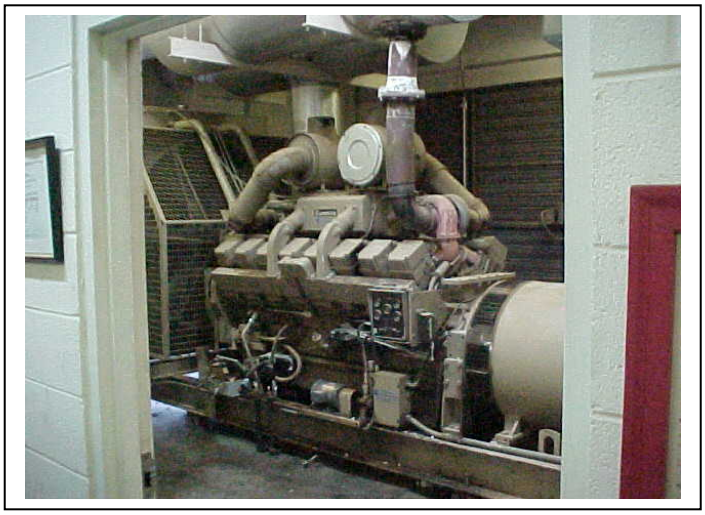
- Greenleaf consolidated and prepared hazardous chemicals for disposal from the Old Paint Storage Building. All waste was handled in accordance with 40 CFR and Greenleaf provided DOT approved containers to prepare for proper shipment.
- Rim line cleaning included the use of high powered Hotsi wand pressure washer. The rinsate was collected and properly disposed. Greenleaf also applied a citrus based degreaser to help assist with the cleaning process.
- Grate cleaning was done throughout the plant. Many of the grates contained grease and oily sludge build-up. Greenleaf removed each grate and cleaned them in a designated area so that all waste rinsate could properly be collected. Each grate was cleaned and replaced. There were approximately 100 grates in and around the plant.
- Greenleaf helped demolish and deconstruct the Flat Belt Washer at the plant. Once demolished, Greenleaf excavated and removed approximately 100 tons of TPH contaminated soil and concrete from under the Flat Belt Washer. The area was also pressure washed and cleaned thoroughly.
- Final decontamination of the facility using pressure washers and squeegees. All solids and rinseate were containerized for disposal.

RESULTS

The time and materials job was completed on schedule and on budget. In addition, there was no lost work time due to accidents. The site facility was successfully decommissioned within the deadline presented by the client.

UST REMOVAL & FLUID DRAINING
ATLANTA, GEORGIA

PROJECT MANAGER
DALE CARPENTER, CHMM



PERFORMANCE PERIOD
January 2006

PURPOSE
This project called for the removal of 2 USTs and draining fluids from generators and transformers.

HISTORY
As part of the expansion of the airport the site of an emergency power generating building was to be removed. The generating system consisted of two large industrial diesel powered generating sets, two in ground storage tanks and numerous oil cooled transformers and switch gears. Greenleaf Environmental Services drained and disposed of all fluids from the generators and electrical components as well as the removal of the two USTs.

PROJECT APPROACH
The scope of the work performed included:

- Draining of all fluids from 2 industrial diesel powered generator sets. All filters were removed and connections to the fuel liners were plugged.
- All fluids were drained into collection vats and then transferred to a vacuum truck.
- Draining all fluid from the two underground storage tanks.
- Drained all fluid from 27 electrical transformers.
- Transportation and disposal of all fluids at an oil recycler.
- Excavation, removal and offsite disposal of 2 1000 gal underground storage tanks.

IN-GROUND LIFT REMOVAL
DULUTH, GEORGIA

PROJECT MANAGER
DALE CARPENTER, CHMM

PERFORMANCE PERIOD
September 2005

CONTRACT VALUE
$20,000

PURPOSE
GES was tasked with the removal of one in ground truck lift and surrounding soils.

HISTORY
The project site was the facility for an automotive dealership in Duluth, GA. Prior to the transfer of the facility to a new owner, one in ground truck lift had to be removed. The client required that all soils surrounding the lift mechanism be removed and sent off site for disposal.

PROJECT APPROACH
The scope of the work preformed included:

- Concrete saw-cutting in required areas in preparation for lift and soil removal. A 12' by 12' area was saw cut into sections. Concrete was loaded into roll offs for disposal.
- Removal of soils surrounding the lift to gain access to the lift foundation. Approximately 4 cubic yards of soil was removed and placed in roll offs.
- Removed lift and associated piping. Placed in roll off for disposal.
- Backfilled excavation with crushed stone to the bottom of concrete.
- Poured concrete over crushed stone and finished.
- Cleaned floor surrounding the work area.

RESULTS
The job was completed on schedule and within budget. In addition, there was no lost work time due to accidents.

Carbon Black Cleaning
Athens, Georgia

PROJECT MANAGER
JEFF STURGEON

PERFORMANCE PERIOD
DECEMBER **2**006

CONTRACT VALUE
$ 127,258.00

PURPOSE
GEG was hired to clean carbon black from various process areas both inside and outside the plant, roof, and outside drains. Five #2 fuel oil tanks required cleaning and carbon black contaminated soil required excavation and disposal at a sub-title D landfill.

PROJECT APPROACH
GES completed the following scope of work on this project:

Plant Clean Out – Cleaned carbon black from tire manufacturing lines, roof, sump areas, and concrete equipment pads using hot pressure washers. Waste water was pumped to an oil/water separator for collection. After completing the cleaning tasks, the oil/water separator was pumped out and pressure washed cleaned.

#2 Fuel Oil Tank Clean Out – Cleaned five #2 Fuel tanks using hot pressure washer and Guzzler trucks. Waste was pumped into vacuum boxes for offsite disposal.

Soil Excavation – Carbon black and petroleum contaminates were identified at several locations on the property. An excavator and several pieces of grading and loading equipment were used to remove soils from the property and haul for off-site disposal. The property was re-graded to allow for drainage and was seeded.

RESULTS

This time and materials job was completed on schedule and on budget. In addition, there was no lost work time due to accidents. Property transferred was not delayed.