



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS, TX 75202-2733

SEP 02 2011

MEMORANDUM

SUBJECT: Request for Approval of a Removal Action and Exemption from the \$2 Million Statutory Limitation at the Scrub-A-Dubb Barrel Co., Lubbock, Lubbock County, Texas

FROM: Gregory E. Fife, Senior On-Scene Coordinator
Removal Site Team (6SF-PR) *3/21/11*

THRU: *for* Robert R. Broyles, Associate Director
Prevention and Response Branch (6SF-P) *J. Chris Petersen*

TO: Samuel Coleman P.E., Director
Superfund Division (6SF)

I. PURPOSE

This memorandum requests approval for a Removal Action pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, 42 U.S.C. §§9601 et seq., at the Scrub-A-Dubb Barrel Co.(the "Site"), located in Lubbock, Texas. The action includes the removal of hazardous substances in drums and totes and excavation of contaminated soil at the Site.

An Emergency Response Action was previously approved and conducted by the On-Scene Coordinator (OSC) per Delegation of Authority Chapter 14, Delegation 2 and subsequent Regional Delegation. This action meets the criteria for initiating a removal action under the National Contingency Plan (NCP), 40 CFR § 300.415. This action is expected to require less than twelve months to complete.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS NO: TXD097054878
Category of Removal: Classic Emergency
Site ID no A6Z3
Latitude: 33° 36.66' N,
Longitude: 101° 50.18' W

A. Site Description

1. Removal Site Evaluation

The Scrub-A-Dubb Site (Site) is an inactive drum refurbisher. The owner/operator began the business in 1975. According to the permit and inspection files, Scrub-A-Dubb (SAD) would take drums from a variety of companies and sources, then clean, repair, and repaint the drums. SAD would then sell the drums. Drums that were in too poor of a condition to be refurbished or when the supply exceeded the demand, were stacked on the Site. It is evident that not all drums were empty or even RCRA-empty (40 CFR § 261.7) when brought to the Site. It is estimated that 2,000 to 4,000 drums with significant quantities of hazardous waste are on the Site. Some drums are completely full of liquid waste. It is estimated that between 40,000 and 60,000 drums remain onsite. At this time, is not possible to assess the number and condition of other drums that may be underneath the piles of drums.

The refurbishing process employed by SAD included rinsing the interior and washing the exterior of the drums with water. This water and contents of the drums were drained into a waste water treatment system comprised of several settling vats. The vats have discarded hoses, tanks, and other material dumped in them. The vats have been the source of previous releases that have gone offsite. An EPA emergency response removed most of the liquid and sludge and transported from the vats to the waste to an offsite facility.

In October 2010, representatives from the Texas Commission on Environmental Quality (TCEQ) contacted EPA's Prevention and Response Branch seeking assistance at the Site. TCEQ had referred the Site to other EPA programs when the facility was still operating, and attempts were made to bring the company into compliance. However, in December of 2009, the owner/operator suffered the first of several health-related problems. The business operations have ceased at the Site. SAD is in the process of selling off company assets.

2. Physical Location

The Site is located at 1102 North Ash Avenue, Lubbock, Texas. The Site is two separate tracts of land on opposite sides of North Ash. The tract at 1102 North Ash is approximately 3.12 acres. The frontage on North Ash is approximately 200 feet. It extends approximately 700 feet to the east. Single family homes are located to the north and a home and a salvage yard are located to the south. Commercial businesses are across the street and to the west. Agricultural land is to the east.

The tract across the street is at 1201 North Ash. This tract is approximately 2 acres with a frontage of about 300 feet. The front gates face the same residential area that is adjacent to the primary tract. Commercial businesses are on the other sides of the tract.



Aerial of Scrub-A-Dubb
Figure 1

3. Site Characteristics

Drums are stacked approximately 7 or 8 drums high over both tracts. The number of drums containing hazardous substances is unknown. Except for some pathways to the back and to enter the Site, the drums cover most of the property. There are an estimated 2,000 to 4,000 drums that have significant amounts of hazardous waste in them. These drums are visible and standing upright on both tracts. Almost all the upright drums assessed had liquid in them. Drums appear to be stacked as they arrived at the Site, with the older ones at the back of the property.



Drums stacked 7 high
Figure 2

Lubbock has many diverse industries. The oil and gas exploration and production is active and it is the largest cotton growing area in the world. The previous assessment found that SAD was doing routine business with companies as far away as Liberal, Kansas, approximately 300 miles away. The drum labels and industries suggest that acids, bases, solvents, volatiles, semi-volatiles, heavy metals, pesticides and many more hazardous materials and hazardous substances were originally in the drums.

The drums are in various stages of deterioration. Some are as old or older than when SAD began operations in the mid 1970's. While the relatively dry climate in Lubbock has slowed the deterioration of the drums, the metal drums are rusting away and failing. The high ultraviolet (UV) exposure from the sun is causing the rapid deterioration of the plastic drums. The plastic drums are aging and crumbling and leaking contents on the ground.

There is one main building on the Site. This served as the office as well as the processing plant. Drums were drained, rinsed out and washed over a large sink that drained to the waste water treatment system. Additional equipment facilitated the removal of paint, labels and other markings. Air compressors were used to pressurize the drums to test for leaks as well as to pop out any small dents. The drums were painted and readied in that building as well. The floor of the building is concrete but inches of dirt, grease, and chemicals have built up over the years.

The waste water treatment system is a series of settling vats. Liquids and wash water from the drum cleaning rack inside the main building would run into the vats. Part of the vats was originally secondary containment built as a corrective measure to a State Notice of Violation. According to a State inspection report, the owner explained the system as being a simple collection system and was pumped out when needed. The contents of the individual vats appear to be similar but have many phases in each vat. The walls of the vats are cracked and collapsing. The condition of the vats is allowing the liquid to seep into the ground. The vats have been the source of at least two previously reported hazardous releases in October, 2004 and January, 2007 when they overflowed. The released substances flowed off the Site towards nearby Blackwater Draw. The Draw is only 820 feet from the operational portion of the Site at 1102 N. Ash. Blackwater Draw runs along the west perimeter of the 1201 N. Ash portion of the Site. Blackwater Draw flows through Mackenzie Park which is less than a quarter mile from the Site. Mackenzie Park is Lubbock's largest recreational park (248 acres) and has playground equipment, a prairie dog town, Frisbee golf courses, as well as a municipal golf course.

There are several areas where repeated spills from the drums have mixed with the soil and formed chemical conglomerates. In the unloading and primary work areas, the conglomerates are at least 3 inches thick.

There are several tanks on the Site. It does not appear those were used actively in the process. In addition, there are a variety of recreational vehicles, boats, and other vehicles scattered among the drums. TCEQ reported that there are three underground storage tanks on the 1201 N Ash property. The investigation of December 27, 2010 found no volatile organic vapors at the fill and the underground storage tanks were dry.

4. Releases or Threatened Release into the Environment of a Hazardous Substance, Pollutant or Contaminant

Analysis of the samples taken of the vats and drums during the December 27, 2010 investigation found several hazardous substances. These include acetone, carbon disulfide, 2-hexanone, trichloroethene (TCE), toluene, ethylbenzene, xylene, isopropylbenzene, trimethylbenzene, naphthalene, and hexachlorobutadiene. All these are hazardous substances as designated in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14) and 40 CFR § 302.4. According to the Agency for Toxic Substances and Disease Control (ATSDR), these substances are associated with various health-effects that attack the different bodily systems. The most common system affected by the listed substance is the neurological system and many affect the cardiovascular and hepatic systems. Other systems affected by the substances found in the vats included the musculoskeletal, ocular, hematological, renal, and respiratory systems. Some of the substances can cause developmental issues. In the State files, most of these hazardous substances were also identified in the samples taken during the previous releases.

Several of the contents of the drums exhibited ignitable characteristics as defined by 40 CFR § 261.21 or corrosive characteristics as defined by 40 CFR § 261.22. Spills and releases have been observed throughout the Site.

5. NPL Status

The Site is not on the NPL list.

6. Maps, Pictures and Other Graphic Representations

Attachment 1 Enforcement Addendum/Confidential/FOIA Exempt)

Attachment 2 Site Map

B. Other Actions to Date

1. Previous actions

In February 2011, EPA conducted an emergency response to address the threat from the waste water treatment vats. Several thousands of gallons of liquids and sludge were removed and transported offsite for disposal. The damaged front gate was also repaired.

In 2004 and 2007, TCEQ responded to a release at the Site. The releases originated from the waste water vats which had overflowed. TCEQ's inspections of the releases report that the released flowed offsite, along N. Ash and into Blackwater Draw. TCEQ attempted to work with SAD to correct the situation.

Earlier in 2001, compliance issues resulted in several corrective actions called for by the State. After SAD failed to take corrective action, the State referred the Site to EPA's RCRA

program. EPA issued a letter order to SAD in 2003 and the owner agreed to and signed the order. The order included the disconnecting of the line from the washing facility to the vats, removal of liquids and sludges from vats, removal of the drums, and to conduct an assessment of the Site soils. Again SAD failed to comply.

2. Current Actions

The Site is no longer operating as a result of the recent health problems experienced by the owner/operator. Assets such as the semi tractor and trailers are being sold. Occasionally the son of the operator, a long time employee of the facility, will sell a drum to be used as a trash or burn drum. He cuts the top off the drum. Other people will dump drums, many still containing hazardous substances, on the perimeter of the Site. The most damage has occurred by people removing drums. This is being done with and without the knowledge of the owners. Unauthorized people cut a top off a drum and sparks from that cutting ignited a fire. Several additional releases resulted and more than 100 drums were in the area of the fire and the plastics melted or burned.

C. State and Local Authorities' Roles

1. State and Local Actions to Date

The TCEQ has assisted in identification of the potentially responsible parties and others with knowledge of the operations as the Site. TCEQ has requested assistance from the EPA Prevention and Response Branch. After completion of this Action Memorandum, the Site will be referred back to the TCEQ for any further action, including operations and maintenance.

2. Potential for Continued State/Local Response

The TCEQ has indicated that they do not have the resources to address the threat at the Site. They have indicated that they will continue to assist in any ways possible.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

The current conditions at the Site meet the following factors which indicate that the Site is a threat to the public health, welfare and the environment and a removal action is appropriate under Section 300.415(b)(2) of the National Contingency Plan. Any or all of these factors may be present at the Site yet any one of these factors may determine the appropriateness of a removal action.

1. Actual or Potential Exposure to Nearby Populations, Animals, or the Food Chain from Hazardous Substance or Pollutants or Contaminants. NCP Section 300.415(b)(2)(i)

The east portion of the Site is fenced but has been damaged or modified in several areas. The west side, 1201 N Ash, lacks any gates on its multiple access points. Spills and releases from the drums and vats are evident throughout the Site. Releases have been observed from several drums, some migrating offsite. Since the vast majority of drums on site are not visible, it is impossible to estimate the number of drums leaking. It is not necessary for people to enter the Site to potentially come into contact with the released hazardous substances. Figure 4 shows a leaking drum that releases into the alley behind the residential properties to the north. Soils are heavily contaminated in some large areas of the Site. Residue on drums and the contents of failing drums are easily accessible to people entering the Site.



Example of releases from individual drums
Figure 4



Evidence of children playing on Site
Figure 5

2. Actual or Potential Contamination of Drinking Water Supplies or Sensitive Ecosystems. NCP Section 300.415(b)(2)(ii)

The topography of the area shows that any run-off from the Site drains into Blackwater Draw and then into MacKenzie Park. Blackwater Draw converges with Yellow House Draw within the borders of MacKenzie Park and flows into Canyon Lake Number 6. The aerial distance from the Site to Canyon Lake Number 6 is 1.68 miles. The Lake is a drinking water reservoir for Lubbock and other communities.

MacKenzie Park is the City's largest recreational park. The golf course, Frisbee golf course, equestrian trails, and other recreational areas utilize the water from Blackwater Draw. The ponds are heavily used by geese on their annual migrations. Thousands of geese may be present on the ponds during the migration.

There are numerous visible spills around the drum stacks. Run-off is visible outside the fence and in the run-off pathways. The walls of the wastewater vats have failed and the owners pushed dirt against the walls. Heavily stained soil is all around the vats as seen in Figure 6.

Drums continue to erode and fail and release their contents.

From the responses to the previous spills, the owner piled the excavated contaminated soil near the east side of the Site. Heavy contamination is still visible. SAD did not conduct any disposal of contaminated soil. They simply moved it back on to the Site. No containment was built or any other effort to prevent continued run-off. This run-off contributes to the contamination of the drinking water supplies.



Contaminant Saturated Soil Next to the Waste Water System
Figure 6

3 Hazardous Substances or Pollutants or Contaminants in Drums, Barrels, Tanks or Other Bulk Storage Containers That May Pose a Threat of Release. NCP Section 300.415(b)(2)(iii)

There are 2,000 to 4,000 drums with hazardous substances in them. Releases from drums are readily visible from the drums on the edge of the piles. While the arid climate has slowed the deterioration of the metal drums, many drums are old and are deteriorating and releasing hazardous substances. The high ultraviolet exposure is causing the plastic drums to deteriorate faster and those drums are releasing their contents. Hazardous substances overflowed the vats and flowed off the Site into nearby Blackwater Draw and subsequently through Mackenzie recreational park. The runoff is easily accessible to children at play in the park, golfers, Frisbee golfers and the park's wildlife.

4. Weather Conditions That May Cause Hazardous Substances or Pollutants or Contaminants to Migrate or Be Released. NCP Section 300.415(b)(2)(v)

Precipitation is a major force for the migration of the released hazardous substances. The rainwater run-off carries the contaminants to Blackwater Draw and then into the Park and ponds. Lubbock is in an area known for very active and frequent tornados. A tornado hitting the Site could disburse the drums over a wide area that includes several schools, the Park, and residential areas. As written earlier, the high UV exposure is accelerating the deterioration of the plastic

drums, thereby causing the release of the hazardous substances.

5. Threat of Fire or Explosion. NCP Section 300.415(b)(2)(vi)

The threat of fire is present as a result of people coming on site to take drums. Sparks resulting from the cutting the top off of drums have caused a fire in a portion of the Site. The dirt roads and bare spots on the Site prevented the fire from reaching larger portions of the Site. The fire melted plastic drums and caused several additional releases. A fire involving a larger area of drums could release very dangerous concentrations of hazardous substances to the water run-off pathway as well as to the adjacent homes. Fires involving drums can lead to boiling liquid expanding vapor explosions (BLEVE). A BLEVE can send a drum rocketing high into the air and land a substantial distance away. BLEVEs can quickly expand the extent of the fire and cause a chain reaction. The high stacks of drums can promote the fire and prevent effective fire-fighting efforts. Partial combustion products of many of the hazardous substances present at the Site are more toxic or dangerous than the original substance. Smoke plumes can reach even farther than the vapors from the leaking drums and spills.

Due to the numerous incompatible substances on the Site and no care taken to separate them, a fire may result from the mixing of the spilled substances. The fire resulting from incompatibles coming into contact with each other would have similar results as a fire started with a spark.



Numerous Visible Spills as a Result of a Fire
Figure 7

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances, pollutants or contaminants from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to the public health, welfare, or the environment.

V. EXEMPTION FROM STATUTORY LIMITS

A. Emergency Exemption

1. There is an Immediate Risk to Public Health or Welfare or the Environment.

There is an immediate risk to the public health via several pathways of exposure. Uncontrolled access to part and compromised access to the other part of the Site allows the public to make direct contact if they venture into the Site. Contact with hazardous substances can occur in the

	Human Carcinogen	Hematological	Neurological	Cardiovascular	Hepatic	Musculoskeletal	Ocular	Developmental	Renal	Respiratory
Acetone	K	◆	◆							
Carbon disulfide				◆	◆	◆	◆			
2-hexanone			◆							
Trichloroethene (TCE)			◆					◆		
Toluene			◆	◆						
Ethylbenzene			◆					◆		
Xylene			◆		◆			◆	◆	
Trimethylbenzene			◆	◆						◆
Naphthalene	S	◆	◆		◆		◆			◆
Hexachlorobutadiene	K		◆	◆	◆			◆	◆	

Health Effects of Hazardous Substances Identified on Site
Table 1

the alleys, along the fence, and in the drainage pathway. The golf courses, horse trails, ponds in the Park are at risk to be impacted by the run-off. The hazardous substances found in the drums, vats, and previous spills can cause serious health effects. Many of the contents of the drums are corrosive and will cause burns to the skin upon contact. Table 1 shows the various physiological systems that are affected according to ATSDR’s TOXFAQs and material safety data sheets (MSDS) by some of the hazardous substance found on site.

2. Continued Response Actions are Immediately Required to Prevent, Limit, or Mitigate an emergency

No consideration of what hazardous materials were stacked or staged next to each other. If incompatible materials leaking from the drums mix, a reaction and fire could occur and the magnitude of the threat would increase by orders of magnitude. Evacuations and temporary relocation of residents may be necessary. The at-risk population would increase to include several schools and larger residential areas. The smoke plumes and run-off would include not only the mixture of all the chemicals in the drums but the combustion and reaction products. The result would significantly increase the difficulty of identifying the constituents of the waste and disposition of the disposal. More soil would be contaminated and require excavation and disposal. Additional actions to address the impacted water bodies, homes, and offsite properties may be necessary. The cost of the cleanup would increase dramatically.

2. Assistance Will Not Otherwise be Provided on a Timely Basis

The State of Texas has indicated that it does not have the resources to adequately address the threats posed by the Site conditions. Enforcement activities against the owner operator have not been successful. Additional enforcement activities under the State's authority are not feasible given the health of the owner and the financial status of the company. The City of Lubbock has no ability to conduct a cleanup.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed actions

1. Proposed Action Description

The proposed removal action involves the identification of the contents of the drums, bulking, combining, or isolating the contents, profiling the waste streams and ultimately disposal offsite. In order to gain access to many of the drums with hazardous substances, the piles of empty drums will be removed. Metal from the drums will be sent for metal recycling to the extent practicable and the plastic drums will be sent for fuel blending. The removal of the drums is also necessary to address the soil contamination. Contaminated soil will be excavated and disposed of offsite. Soil remediation will be to a maximum of two (2) feet below ground surface. The vats and other structures used to process the drums may have to be removed if the contamination prevents adequate cleaning.

2. Contribution to Remedial Performance

If any remedial action should occur the proposed action is consistent with the remedial action as it removes the source of the contamination.

3. Description of Alternative Technologies

There is no reasonable alternative.

4. Applicable or Relevant and Appropriate Requirements (ARAR)

This removal action will be conducted to eliminate the actual or potential exposure to hazardous substance, pollutant or contaminant to the environment, pursuant to CERCLA, 42 U.S.C. §9601 *et seq.*, and in a manner consistent with the National Contingency Plan (NCP), 40 CFR Part 300, as required at 33 U.S.C. §1321(c)(2) and 42 U.S.C. §9605. Pursuant to 40 CFR Part 300.415(j), fund-financed removal actions under CERCLA §104 and removal actions pursuant to CERCLA §106 shall, to the extent practicable considering the exigencies of the situation, attain the applicable or relevant and appropriate requirements under Federal environmental law.

5. Project Schedule

The duration of the work is expected to be from four to five months after mobilizing to the Site.

B. Estimated Costs

<u>Extramural Costs</u>	<u>Previous Ceiling</u>	<u>Requested Ceiling</u>
Cleanup Contractor.....	\$200,000	\$3,500,000
START	50,000	100,000
Total Extramural	\$250,000	\$3,600,000
Site Contingency	<u>\$25,000</u>	<u>\$360,000</u>
TOTAL CEILING.....	\$275,000	\$3,960,000

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If this action is not taken at the Site, hazardous substances will continue to be released from the Site. The rate of failure of the drums will increase and the quantity of hazardous substances will increase. Surface water will continue to be impacted. Some hazardous substance may accumulate in the ponds in MacKenzie Park and drinking water reservoir. Additional drums will continue to be dumped and those drums tend to be full of hazardous substances. The drums will continue to attract people needing trash or burn drums. The chance of fire will increase as the overall stability of the Site deteriorates. The chance for a catastrophic release will increase.

VIII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this site.

IX. ENFORCEMENT

For administrative purposes, information concerning confidential enforcement strategy for this Site is contained in the Enforcement Attachment #1. The total cost for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be **\$5,841,954**.

(Direct Cost) + (Other Indirect Costs) + 42.14%(Direct + Indirect Costs) = Estimated EPA Cost

$$\$3,960,000 + \$150,000 + 0.4214(\$3,960,000 + \$150,000) = \mathbf{\$5,841,954}$$

Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2002. The estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only, and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor the deviation of actual total costs from this estimate will affect the United States' right to cost recover.

X. RECOMMENDATION

This decision document represents the selected removal action for the Scrub-A-Dubb Barrel Co. Site in Lubbock, Lubbock County, Texas, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the administrative record for the Site.

Conditions at the Site meet the criteria as defined by 40 CFR Section 300.415(b)(2) of the NCP for a removal and the CERCLA Section 104(c) emergency exception from the \$2 million limitation, and I recommend your approval of the proposed removal action. The total project ceiling will be \$3,960,000.

APPROVED

Janella Phillips, Acting

DATE

9/1/11

Attachments: