

ARCHIVE NOTE  
ARCHIVE DECISION -EPA REGION VII

SITE NAME: Riddle Drum EPA ID#: IAN000706068 SSID#: A7S2

Alias Site Names: \_\_\_\_\_

City: Monticello State: Iowa County or Parish: Jones Zip Code: 52310

**DECISION CHECKLIST:**

No Further Superfund Interest Exists at the Site based upon the following:

All CERCLIS Site work has been completed.  Yes  No  N/A  
{site assessment, RI/FS, RD, RA, O&M, All Monitoring, Closeout Report, 5-yr review, NPL Deletion, Removal(s)}:

All Enforcement actions have been completed.  Yes  No  N/A  
{PRP has complied with all aspects of enforcement document(s), All Orders and/or Consent Decrees have been closed out}

All Cost Recovery actions have been completed.  Yes  No  N/A  
{final billing sent & collected, referral completed, DD completed}

All existing monitoring wells closed in accordance with State Regulations.  Yes  No  N/A  
Date of final well closure: \_\_\_\_\_

*If any of the above questions have a no response, site does not qualify for archival.*

**DISCUSSION/RATIONALE FOR ARCHIVAL:**

The site is located at 615 East Washington Street, Monticello, Jones County, Iowa. The Riddle Drum Site operated as a circuit board printing company. Operations began around 1985 and ceased in 1991. The Iowa Department of Natural Resources (IDNR) became aware of the site when the City of Monticello contacted IDNR's Brownfield Redevelopment Program. The City of Monticello requested assistance in conducting an environmental due diligence process on the city's behalf, as the city planned to take title to the site, demolish the building, and redevelop the site as a greenbelt park and natural habitat restoration project. The city was greatly concerned with a reported large collection of waste drums and materials in the building at the site and recurring flooding of the building from nearby Kitty Creek.

Both IDNR Brownfield and environmental services staff visited the site and observed and documented more than 200 drums and containers containing suspected hazardous materials and wastes. Based on the large number and variety of potentially hazardous waste materials within the building, IDNR did not have the resources to perform a removal action. On October 7, 2009, IDNR referred the site to EPA and recommended that a time-critical removal action be performed to identify and removed on-site wastes.

EPA performed a Removal Assessment (RA) at the site the week of November 30, 2009. During the RA soil, water, and waste samples were collected. Over 200 waste samples were collected and field screened. From those 200 samples; 17 waste samples, 2 water samples, and a soil sample were sent in for laboratory analysis. Analytical results showed hazardous waste is present at the site. EPA has determined that there is a threat to public health or welfare of the environment and a removal action is warranted at the site.

continue

EPA began removal activities on July 13, 2010. The removal began by clearing ingress and egress pathways throughout the building. Fluorescent light bulbs and ballast were removed for proper disposal. The main room of the building was cleared of debris to be used as a working area for staging containers by hazard class, and bulking operations. EPA began labeling all drums and containers that had previously been sampled and field screened during removal assessment activities with their hazard category and then staged drums and containers by hazard class. Materials from the lab were segregated by hazard class and lab packed for shipment. Sludge material was identified and bulked in the back room. Ground corn cob was used to solidify the sludge material so it can be hauled off to a CERCLIS approved landfill. Once sludge material was solidified, it was moved outside on the east side of the building onto a plastic liner and covered with a tarp. A sample of the material was collected and sent for laboratory analysis. Upon receiving analytical results, the results were sent to the CERCLIS approved Prairie Hills RDF landfill, Morrison, Illinois. Once the poly drums were emptied they were cut up and put into a trailer provided by BES Recycling, Cedar Rapids, Iowa. BES will shred the poly drums, and the material will be used for various post consumer products. Poly drums that were not able to be recycled were deposited in a roll off, and hauled to Prairie Hill Landfill, Morrison, Illinois. There were several pieces of metal material in the building, including lead, copper, iron and steel. There were also several large pieces of machinery including an old motorcycle, snowmobile, fork lift and machines that were used for the circuit board printing process. Because the building had been flooded several times, the machinery was rusted and in non-working condition. EPA talked to owner of the building about recycling the machines along with the various metals found inside the building. The owner stated that he did not want anything, and it was ok to go ahead and recycle it. All metal materials, including the old machinery was picked up by Dittmer Recycling, Inc., Cedar Rapids, Iowa. Several lead batteries were collected and taken to The Battery Center, Dubuque, Iowa for recycling. The removal action was completed on October 21, 2010.

On October 19, 2010, EPA collected groundwater and soil samples for further analysis of the arsenic contamination. Arsenic was found in the groundwater at approximately 89 ug/l. The EPA MCL for arsenic in drinking water is 10 ug/l. Several groundwater samples were taken in the area. The arsenic level in groundwater just 100 feet downgradient of the facility was found to be approximately 17.8 ug/l. To EPA's knowledge arsenic was not managed at the plating facility. Arsenic is naturally occurring in the soils and groundwater in the area. The higher than background concentrations of arsenic in the groundwater at the facility is most likely due to a release of acidic plating wastes at the facility which would have easily mobilized the arsenic in the soil to leach into the groundwater, thereby causing/yielding higher arsenic levels in the nearby groundwater. Given the localized nature of the arsenic found in the groundwater, the fact that the facility/area will be developed into park, and the fact that the city will not allow the placement and use of water supply wells in the park, no further removal action work is warranted by EPA.

All removal activities have been completed. No known monitoring wells were installed under the authority of the Comprehensive Environmental Response, Compensation and Liability Act/Superfund Amendments and Reauthorization Act (CERCLA/SARA).

No further response under CERCLA/SARA is required and archiving is appropriate.

Site Reviewed and Approved by:

SAM/RPM/OSC, if applicable:

Site Assessment Team Leader:

Cost Recovery Unit concurrence:

IMC Review of site data in CERCLIS:

State concurrence:

Date:

Date:

Date:

Date:

Date:



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

MAY 24 2010

ACTION MEMORANDUM

SUBJECT: Request for Approval and Funding for a Removal Action at the Riddle Drum Site, Monticello, Jones County, Iowa

FROM: Susan Fisher, On-Scene Coordinator
Emergency Response and Removal North Branch Superfund Division

TO: Cecilia Tapia, Director
Superfund Division

THRU: Kenneth S. Buchholz, Chief
Emergency Response and Removal North Branch

CERCLIS ID# IAN000706068
SSID #: A7S2
REMOVAL CATEGORY: Time-Critical
NATIONALLY SIGNIFICANT: No

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the selected removal action described herein for the Riddle Drum Site (site), Monticello, Jones County, Iowa. The proposed action will remove abandoned hazardous waste remaining from a former circuit board printing business. The site was investigated by the Iowa Department of Natural Resources' (IDNR) Brownfield Redevelopment Program. IDNR determined that they did not have the resources to perform a removal action and referred the site to the Environmental Protection Agency (EPA). There are no nationally significant or precedent-setting issues associated with this response.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID# IAN000706068
SSID #: A7S2
REMOVAL CATEGORY: Time-Critical
NATIONALLY SIGNIFICANT: No

30191992
Superfund
2.0



## **A. Site Description**

### **1. Removal site evaluation**

The Riddle Drum Site operated as a circuit board printing company. Operations began around 1985 and ceased in 1991. IDNR became aware of the site when the city of Monticello contacted IDNR's Brownfield Redevelopment Program. The city of Monticello requested assistance in conducting an environmental due diligence process on the city's behalf. The city planned to take title to the site, demolish the building, and redevelop the site as a greenbelt park and natural habitat restoration project. The city was greatly concerned with a reported large collection of waste drums and materials in the building at the site and recurring flooding of the building from nearby Kitty Creek.

IDNR Brownfield Redevelopment Program staff visited the site and observed and documented more than 200 drums and containers containing suspected hazardous materials and wastes. Based on the large number and variety of potentially hazardous waste materials within the building, IDNR did not have the resources to perform a removal action. On October 7, 2009, IDNR referred the site to EPA and recommended that a time-critical removal action be performed to remove on-site wastes.

EPA performed an initial walk through of the site, and noted the following:

- The building is approximately 14,000 square feet.
- Operations ceased in 1991 and no process waste had been removed from the building.
- The building is in poor shape. Several holes exist in the roof allowing water to flow freely into the building.
- Kitty Creek is located adjacent to the site and has flooded the building on several occasions since 1991, with the last flooding event in August 2009.
- Over 200 drums containing corrosives, acids, oxidizers, as well as many unknown contaminants are scattered throughout the building.

EPA performed a Removal Assessment (RA) at the site the week of November 30, 2009. During the RA, soil, water, and waste samples were collected. Over 200 waste samples were collected and field screened. From those 200 samples, 17 waste samples, 2 water samples and a soil sample were sent in for laboratory analysis. Analytical results showed hazardous waste is present at the site. EPA has determined that there is a threat to public health or welfare of the environment and a removal action is warranted at the site. Copies of the field collection sheets and analytical results are included in Attachment I.

### **2. Physical location**

The site is located at 615 East Washington Street, Monticello, Jones County, Iowa. The geographic coordinates for the site are 42°14'09" N latitude and 91°10'56" W longitude. Commercial/industrial buildings are to the west and south of the site. Kitty Creek flows approximately 400 feet north and east of the building. Kitty Creek is a meandering stream, and over the years appears to have moved closer to the Riddle Drum site, which has caused several flooding events inside the building. Kitty Creek is designated as A1/B (WW-2) water

body, which means the primary contact is recreational use (A1), and it is a warm water type 2 Class B stream that is capable of supporting aquatic life. Two schools are located within 1,700 feet of the site. The population of Monticello, Iowa, is approximately 3,600. The surrounding community is residential and light commercial. There are no known water wells within ½ mile downstream of the site.

The Riddle Drum building is in very poor shape. There are several large holes in the roof, which allow rainwater and snow to accumulate inside the building. According to bestplaces.net, in Monticello, Iowa:

- The wind direction is generally northeast.
- Average rainfall for the year is 35.3 inches
- Average snowfall for the year is 28.1 inches
- Average July high is 84.8 degrees Fahrenheit (F)
- Average January low is 8.9 degrees F

### **3. Site characteristics**

The site is an inactive former circuit board printing company. Currently, the building is not in use, and the owner is planning to donate it to the city of Monticello. The site is currently classified as a commercial property. The building is approximately 14,000 square feet. The site is bordered to the north by a vacant wooded area, to the east by Kitty Creek, to the south by industrial properties, and to the west by residential properties. The city of Monticello is planning on demolishing the building and redeveloping the site as a greenbelt park and natural habitat restoration project.

This is the first removal action at the site; there have been no previous actions at the site.

### **4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant**

IDNR and EPA investigations documented more than 200 drums and containers filled to varying levels with a variety of known and unknown chemical waste. When present, labels identified some of the chemicals in the drums and containers as nitric acid, sulfuric acid, sodium hydroxide, calcium hydroxide, formaldehyde, and thiourea. Also, the owner stated that there was potassium cyanide on-site. These wastes are hazardous substances as defined by section 101(14) of CERCLA and are listed at 40 CFR § 302.4. EPA collected over 200 waste samples for field screening as well as soil, water, and waste samples for laboratory analysis. Field screening and analytical results show that hazardous waste is present at the site. Samples collected at the site failed hazardous waste characteristics as defined under 40 Code of Federal Regulations (CFR) 261.20 including:

- 40 CFR 261.21 Ignitable hazardous waste
- 40 CFR 261.22 Corrosive hazardous waste
- 40 CFR 261.24 Toxic hazardous waste

Based on the removal assessment conducted by EPA, there are approximately 3,776 gallons of characteristic hazardous waste due to corrosivity, ignitability, and/or toxicity at the site. An inventory of wastes documented by EPA is included in Attachment II. Copies of the field collection sheets and analytical results are included in Attachment I.

Several mechanisms exist for the probability of present or future releases. All of the drums and containers are located inside the building. However, the property is not fenced, and while the building is locked, it is not secure as the building is deteriorating. There are several holes underneath the building walls which would allow entrance to the building. The back of the building is a pole-barn-type building with dirt floors. Additionally, the building has flooded several times, most recently in August 2009. Water reached approximately three feet inside the building and moved drums and containers from their original resting place. It is obvious that past flooding events have moved the drums around. Several incompatible materials are located next to each other. As the flood waters move through the building, there is a potential for contaminants to migrate off-site. Several full, unopened drums of 50 percent hydrogen peroxide exist at the site, which is an explosion hazard. Several types of acids are located in the building; some of them, when opened, were fuming. Toxic fumes from the contaminants being released into the environment is a concern.

**5. National Priority List (NPL) status**

This site is not listed on, nor is it proposed for, the NPL.

**6. Maps, pictures, and other graphic representations**

A site map is included as Attachment III. Pictures of the inside of the building are provided in Attachment IV.

**B. Other Actions to Date**

**1. Previous actions**

There have been no previous actions undertaken to address the site.

**2. Current actions**

Other than this proposed removal action, there are no other current actions underway to address the site.

**C. State and Local Authorities' Roles**

**1. State and local actions to date**

Prior state actions have been previously described. The state has been kept apprised of EPA's investigation activities and is supportive of the proposed removal action. The local authorities will be notified of the upcoming removal action upon approval of this request and when a schedule of field work has been established.

## **2. Potential for continued state/local response**

The state has requested EPA's assistance to address the contamination. IDNR will remain involved with site activities.

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

At any release, regardless of whether the site is included on the NPL, where the lead agency makes the determination, based on the factors in 40 CFR § 300.415(b)(2), that there is a threat to public health or welfare of the United States or the environment, the lead agency may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or the threat of release. The factors in 40 CFR § 300.415(b)(2) which applies to this site are:

***Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.***

The primary contaminants of concern at the site are containerized corrosive, toxic, and ignitable hazardous waste. Corrosive wastes may compromise containers over time, resulting in leaking and migration of wastes and represent a direct-contact hazard to residents near the facility. Ignitable wastes present a fire and explosion hazard to nearby populations and environments. Toxic waste presents a hazard should the containers leak and/or migrate off-site. There is a direct-contact hazard to residents and animals near the facility. Recurrent flooding of the property has caused movement of containers in the building and possible hazardous substance migration to Kitty Creek.

***Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.***

The site contains approximately 200 abandoned drums and containers. Based on the number of containers on-site, it is estimated that the abandoned containers could hold over 3,776 gallons of potentially hazardous substances.

Many of the containers are in poor condition, including corroded, rusted, and dented drums as well as drums without lids. Rust, corrosion, and dents have compromised the integrity of the drums and have resulted in an increased risk of leakage. As a result of the condition of the drums on-site, some drums are leaking. Evidence of leakage from drums was observed on the ground under the drums.

***Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.***

Heavy rains may cause hazardous substances to migrate. The site is located next to Kitty Creek and the roof of the building is severely compromised. The building has flooded several times, most recently in August 2009. Water reached approximately three feet inside the building, tipping drums and containers over and moving them from their original resting places.

***Threat of fire or explosion.***

The building is severely deteriorated; large holes exist in the roof, allowing adverse weather to enter the building. The building has flooded several times, tipping over and moving drums from their original resting place. Reactive chemicals are stored haphazardly throughout the dilapidated building. Exposure to the elements and the chemicals located next to incompatible materials such as ignitables next to oxidizers, create potential for explosion and/or fire. Commercial businesses are adjacent to and across the street from the building, and two schools are located within approximately 1,700 feet of the building.

***The availability of other appropriate federal or state response mechanisms to respond to the release.***

The state has requested EPA's assistance to respond to the contamination problem. There is no other state or federal authorities able to respond to the release of hazardous substances at the site.

***Other situations or factors that may pose threats to public health or welfare of the United States or the environment.***

Further delays in responding to the situation may result in the migration of caustic and toxic wastes off-site, increasing the exposure threat to the surrounding community. The population of the city of Monticello is approximately 3,600 people. Kitty Creek lies adjacent to the building.

**IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances from this site may present an imminent and substantial endangerment to public health, or welfare, or the environment.

**V. PROPOSED ACTIONS AND ESTIMATED COSTS**

**A. Proposed Actions**

**1. Proposed action description**

The proposed action will collect, characterize, segregate, and transport off-site for proper disposal all hazardous substances abandoned from prior circuit board printing operations. EPA will also determine the nature, extent, and concentration of materials released into the soil, surface water, and groundwater

**2. Contribution to remedial performance**

Although no remedial action is anticipated at the site, the proposed action will not impede future responses based upon available information.

### **3. Applicable or relevant and appropriate requirements (ARARs)**

Section 300.415(j) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) requires that fund-financed removal actions under CERCLA section 104 and removal actions pursuant to CERCLA section 106 shall, to the extent practicable considering the exigencies of the situation, attain ARARs under federal environmental or state environmental or facility siting laws. Known potential ARARs at this time are:

#### **Federal**

- 29 CFR 1910, Occupational Safety and Health Standards: General Industry – All EPA employees and contractors are regulated by Occupational Safety and Health Administration (OSHA). Site work is conducted under an approved Health and Safety Plan with a designated Health and Safety Officer and all contracting documents require that OSHA regulations are followed.
- The CERCLA Off-Site Rule – promulgated pursuant to CERCLA section 121(d)(3), 42 U.S.C. § 9621(d)(3), and formally entitled “Amendment to the National Oil and Hazardous Substances Pollution Contingency Plan; Procedures for Planning and Implementing Off-Site Response Action: Final Rule,” 58 Fed. Reg. 49200 (September 22, 1993), codified at 40 CFR § 300.440. This rule is applicable for all off-site shipments of waste.
- 40 FR 268, RCRA Land Disposal Restrictions.
- 40 FR 261, RCRA Hazardous Wastes.
- 40 FR 262, Standards Applicable to Generators of Hazardous Waste.
- 40 CFR 263, Standards Applicable to Transporters of Hazardous Waste.
- 49 U.S.C. 5101 et seq., Federal Hazardous Materials Transportation Law and/or 49 CFR 107, 171-177.

#### **State of Iowa**

In a letter dated April 1, 2010, EPA requested potential state ARARs from IDNR. EPA received a list of potential ARARs from IDNR on April 24, 2010, and is currently evaluating them per the EPA guidance on consideration of ARARs during removal actions.

### **4. Project schedule**

Response actions are anticipated to begin within 30 days of approval of this Action Memorandum. On-site activities will await confirmation of waste disposal arrangements. The field work is expected to take 4-6 weeks to complete.

**B. Estimated Costs**

The costs associated with this removal action are estimated as follows:

<u>Extramural Costs:</u>	
Removal Costs	\$291,280
Contingency (20%)	\$ 58,256
Removal Project Ceiling	\$349,536

The EPA direct and indirect costs, although cost recoverable, do not count toward the total removal project ceiling for this removal action. Refer to the enforcement section for a breakout of these costs.

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

Delayed action could result in the spread of contamination to Kitty Creek and increase public health risks to the adjacent population.

**VII. OUTSTANDING POLICY ISSUES**

None

**VIII. ENFORCEMENT**

A Confidential Enforcement Addendum for this site is attached to this Action Memorandum (Attachment V). For NCP consistency purposes, it is not a part of this Action Memorandum. The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$550,786.

Direct Extramural Costs	\$349,931
Direct Intramural Costs	30,000
EPA Indirect Costs (44.97% of all costs)	170,855
Total Project Costs	\$550,786

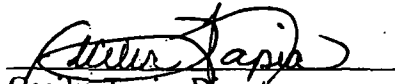
Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do 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 deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

**IX. RECOMMENDATION**

This decision represents the selected removal action for the Riddle Drum Site, in Monticello, Jones County, Iowa, developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the administrative record for the site.

Conditions at the site meet the NCP section 300.415(b) criteria for a removal and I recommend your approval of the proposed removal action. The total project ceiling, if approved, will be \$349,536.

Approved:

  
Cecilia Tapia, Director  
Superfund Division

5/24/10  
Date

Attachments

U.S. ENVIRONMENTAL PROTECTION AGENCY  
 POLLUTION/SITUATION REPORT  
 Riddle Drum - Removal Polrep  
 Initial and Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 Region VII

**Subject:** POLREP #2  
 Removal Action Final Polrep  
 Riddle Drum  
 A7S2  
 Monticello, IA  
 Latitude: 42.2356383 Longitude: -91.1834273

**To:**  
**From:** Susan Fisher, OSC  
**Date:** 8/17/2010  
**Reporting Period:** July 12, 2010

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	A7S2	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	5/24/2010
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Time-Critical
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Assessment
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	00
<b>Mobilization Date:</b>	7/12/2010	<b>Start Date:</b>	7/13/2010
<b>Demob Date:</b>		<b>Completion Date:</b>	10/21/2010
<b>CERCLIS ID:</b>	IAN000706068	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	Mel Pins
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

*CERCLA incident category: Inactive Circuit Board Printing Facility*

#### 1.1.2 Site Description

##### 1.1.2.1 Location

The Riddle Inc Company was located at 615 E Washington, Monticello, Iowa in Jones County (Site). (42.2356383 latitude, -91.1834273 longitude). Riddle Inc operated as a circuit board printing company. Operations began around 1985 and ceased in 1991. The site consist of an approximate 21,870 square foot building.

The Site is bordered to the north by a vacant wooded area, to the east by Kitty Creek, to the south by industrial properties, and to the west by residential properties. The residential community of Monticello, Iowa surrounds the Site. The population of Monticello is approximately 3,600 people.

##### 1.1.2.2 Description of Threat

IDNR and EPA investigations documented more than 200 drums and containers filled to varying levels with a variety of known and unknown chemical waste. Also documented were several piles of waste on the floor of the main building and a lined pit containing hazardous substances in the dirt floor at the back of the building. When present, labels identified some of the chemicals in the drums and containers as nitric acid, sulfuric acid, sodium hydroxide, calcium hydroxide, formaldehyde, and thiourea. Also, the owner stated that there was potassium cyanide on-site. These wastes are hazardous substances as defined by section 101(14) of CERCLA and are listed at 40 CFR § 302.4.

Additionally, the building has flooded several times, most recently in August 2009. Water reached approximately three feet inside the building and moved drums and containers from their original resting place.

### 1.1.3 Preliminary Removal Assessment/Removal

The Iowa Department of Natural Resources (IDNR) became aware of the site when the City of Monticello contacted IDNR's Brownfield Redevelopment Program. The City of Monticello requested assistance in conducting an environmental due diligence process on the city's behalf, as the city planned to take title to the site, demolish the building, and redevelop the site as a greenbelt park and natural habitat restoration project. The city was greatly concerned with a reported large collection of waste drums and materials in the building at the site and recurring flooding of the building from nearby Kitty Creek.

Both IDNR brownfield and environmental services staff visited the site and observed and documented more than 200 drums and containers containing suspected hazardous materials and wastes. Based on the large number and variety of potentially hazardous waste materials within the building, IDNR did not have the resources to perform a removal action. On October 7, 2009, IDNR referred the site to EPA and recommended that a time-critical removal action be performed to identify and removed on-site.

EPA performed an initial walk through of the site, and noted the following:

- The building is approximately 21,870 square feet.
- Operations ceased in 1991 and no process waste had been removed from building.
- The building is in poor shape, several holes exist in the roof allowing water to flow freely into the building.
- Kitty Creek is located adjacent to the site, and has flooded the building on several occasions since 1991, with the last flooding event in August 2009.
- Over 200 drums containing corrosives, acids, oxidizers as well as unknown materials are scattered throughout the building.

EPA performed a Removal Assessment (RA) at the site the week of November 30, 2009. During the RA:

- Over 200 waste samples were collected and field screened.
- 17 waste samples, 2 water samples and a soil sample were sent in for laboratory analysis.

#### Site Inspection Results

Analytical results showed hazardous waste is present at the site. EPA has determined that there is a threat to public health or welfare of the environment and a removal action is warranted at the site.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

On July 12, 2010, On Scene Coordinator (OSC) Fisher, START, and ERRS contractors mobbed to Monticello, Iowa to begin removal activities at the Riddle Drum site. OSC Fisher met with the owner of the building to get the keys. Owner stated that he had removed his personal items from the building.

Removal activities began on July 13, 2010. The removal began by clearing ingress and egress pathways throughout the building. Fluorescent light bulbs and ballast were removed for proper disposal. The main room of the building was cleared of debris to be used as a working area for staging containers by hazard class, and bulking operations. OSC Fisher and Dave Kinroth (START) began labeling all drums and containers that had previously been sampled and field screened during removal assessment activities with their hazard category. Evan Wortman, ERRS Project Manager and crew staged drums and containers by hazard class. Some open top containers could not be moved because of potential spill hazards. Fisher and Kinroth field screened drums and containers that had not been field screened during the removal assessment do to being located behind and under debris. Once drums and containers that could be moved were staged, bulking operations began. Containers that could not be moved were bulked at their location. Materials from the lab were segregated by hazard class and lab packed for shipment. Sludge material was identified and bulked in the back room. Ground corn cob was used to solidify the sludge material so it can be hauled off to a CERCLIS approved landfill. Once sludge material was solidified, it was moved outside on the east side of the building onto a plastic liner and covered with a tarp. A sample of the material was collected and sent for laboratory analysis. Upon receiving analytical results, the results were sent to the CERCLIS approved Prairie Hills RDF landfill, Morrison, Illinois. Once the poly drums were emptied they were cut up and put into a trailer provided by BES Recycling, Cedar Rapids, Iowa. BES will shred the poly drums, and the material will be used for various post consumer products. Poly drums that were not able to be recycled were deposited in a roll off, and hauled to Prairie Hill Landfill, Morrison, Illinois. There were several pieces of metal material in the building, including lead, copper, iron and steel. There were also several large pieces of machinery including an old motorcycle, snowmobile, fork lift and machines that were used for the circuit board printing process. Because the building had been flooded several times, the machinery was rusted and in non-working condition. OSC Fisher talked to owner of the building about recycling the machines along with the various metals found inside the building. The owner stated that he did not want anything, and it was ok to go ahead and recycle it. All metal materials, including the old machinery was picked up by Dittmer Recycling, Inc., Cedar Rapids, Iowa. All proceeds from recycling will be credited back to the project. Several lead batteries were collected and taken to The Battery Center, Dubuque, Iowa for recycling.

On July 13, 2010, a reporter with the Monticello Express stopped by, she had a copy of the fact sheet, and took pictures of work being done inside the building.

On July 15, 2010, Mel Pins and Joe Sanfilippo with Iowa Department of Natural Resources, and Doug Herman, City Manager of Monticello, IA walked through the building. Mr. Riddle is planning on donating the building to the city once removal is complete.

On Saturday, July 24, 2010, the Delhi Lake Dam failed, draining the lake into the Maquoketa River. Delhi Lake is north and upstream of Monticello, Iowa. Kitty creek, which is adjacent to the Riddle Drum site, flows into the Maquoketa River. Monticello received notification around 10:00 a.m. on Saturday that the Delhi Dam was going to fail. Once failure occurred it was anticipated that water overflow from the Maquoketa River would backflow into Kitty creek. All removal equipment belonging to EPA, ERRS, and START was removed from the building. Bungs were tightened down on all containers, and smaller containers were placed on high shelves located in one of the storage rooms. Sludge material was staged in the back room along the south wall and outside on a plastic liner. The pile of sludge material located outside the building was covered with a tarp and clean soil was placed around the base of the tarp on all sides to hold it in place. Saturday afternoon Kitty Creek began flooding; the building was flooded with about three feet of water. The water began receding Sunday, July 25, 2010. On Monday morning, July 26, 2010, water was out of the building. The totes and various containers were not damaged. Water reached the bottom three feet of the sludge material pile, and a small amount of staining of the soil was observed around the outside sludge pile. No sludge material appeared to be transferred off-site.

By the end of the day on Thursday, July 29, 2010, all liquids were bulked. Sludge materials were transferred to the Prairie Hill landfill, Morrison, Illinois on Thursday and Friday, July 28 and 30, 2010. Totes are staged in the main room of the building until they are shipped for disposal. It is estimated that the liquids will not be shipped until the week of August 23, 2010. Orange fencing will be put up in the back of the building to block the outside openings. OSC Fisher conducted a final walk through of the building with Doug Herman, City Manager, the Monticello Police Chief and Fire Chief. Discussed the security of the building, and the types of chemicals that were staged to be shipped. We supplied a list of the waste inventory along with OSC Fisher and ERRS Project Manager, Evan Wortman, cell phone numbers in case of emergency. August 25, 2010 - Dennis Wilson, ERRS with crew of three arrived on-site to oversee shipment of totes and drums. OSC Fisher, Joe Ricard, EPA Geoprobe Operator and START, Bryant Merriman, collected confirmation soil and groundwater samples with a geoprobe. Samples were collected to confirm no contamination from the circuit board printing operations contaminated the soil or groundwater. Analytical results showed the presence of arsenic in groundwater above the maximum contaminate level (MCL).

October 19, 2010, OSC Fisher and START Rob Monning mobbed to the site to collect groundwater and soil samples for further analysis of the arsenic contamination. Analytical results of the soil and groundwater collected were received on November 19, 2010.

Arsenic was found in the groundwater at approximately 89 ug/l. The EPA MCL for arsenic in drinking water is 10 ug/l. Several groundwater samples were taken in the area. The arsenic level in groundwater just 100 feet downgradient of the facility was found to be approximately 17.8 ug/l. To EPA's knowledge arsenic was not managed at the plating facility. Arsenic is naturally occurring in the soils and groundwater in the area. The higher than background concentrations of arsenic in the groundwater at the facility is most likely due to a release of acidic plating wastes at the facility which would have easily mobilized the arsenic in the soil to leach into the groundwater, thereby causing/yielding higher arsenic levels in the nearby groundwater. Given the localized nature of the arsenic found in the groundwater, the fact that the facility/area will be developed into park, and the fact that the city will not allow the placement and use of water supply wells in the park, no further removal action work is warranted by EPA.

#### 2.1.2 Response Actions to Date

Action memo was completed and signed May 24, 2010.

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

PRP has been identified.

#### 2.1.4 Progress Metrics

<b>Waste Stream</b>	<b>Medium</b>	<b>Quantity</b>	<b>Manifest #</b>	<b>Recycled</b>	<b>Disposal</b>
Characteristic Haz Waste	Waste Water	1210 gallons	007164191JJK		EQ - Detroit
Ethylene Glycol	Liquid	85 gallons	007164199JJK		EQ - Detroit
Fluorescent Light Bulbs	Solid	75 lbs	40256628		EQ - Detroit
PCB Ballasts	Solid	50 lbs	40256628		EQ - Detroit
Mercury	Solid	25 lbs	40256628		EQ - Detroit
Hazardous Waste	Solid	300 lbs	007164199JJK		EQ - Detroit
Hydrogen Peroxide	Liquid	1500 pounds	007164199JJK		EQ - Detroit
Sodium Hydroxide	Liquid	330 gallons	007164199JJK		EQ - Detroit
Oxidizer/Corrosives	Liquid	55 gallons	007164199JJK		EQ - Detroit
Ammonia Solution	Liquid	55 gallons	007164199JJK		EQ - Detroit

Hazardous waste	Liquid	1750 gallons	007164199JJK		EQ - Detroit
Flammable Liquids	Liquid	110 gallons	007164199JJK		EQ - Detroit
Sodium Nitrate	Solid	85 pounds	007164199JJK		EQ - Detroit
Flammable liquids	Liquid	85 gallons	007164199JJK		EQ - Detroit
Flammable Aerosols	Liquid	100 lbs	007164199JJK		EQ - Detroit
Solid Lead Acid Crystals	Solid	550 pounds	007164199JJK		EQ - Detroit
Lead Acid Solution	Liquid	2,365 gallons	007164199JJK		EQ - Detroit
Sulfuric Acid	Liquid	155 gallons	007164199JJK		EQ - Detroit
Lead Fluoroborate	Liquid	35 pounds	007164192JJK		EQ - Detroit
waste, flammable	Liquid	800 pounds	007164199JJK		EQ - Detroit
Scrap steel	Solid	8.86 tons		DR	
Copper, lead and Iron	Solid	6108 pounds		DR	
Sodium Cyanide	Solid	15 pounds	007164192JJK		EQ - Detroit
Gold Cyanide	Liquid	5 pounds	007164192JJK		EQ - Detroit
Aluminum Powder	Solid	25 pounds	007164192JJK		EQ - Detroit
Mecuric compounds	Solid	10 pounds	007164192JJK		EQ - Detroit
Waste, Toxic, Liquid, organic	Liquid	220 pounds	007164199JJK		EQ - Detroit
Oil/water	Liquid	110 gallons	007164199JJK		EQ - Detroit
metal powder	Solid	45 pounds	007164199JJK		EQ - Detroit
RCRA Empty Containers	Solid	6.49 tons			PH
Poly Drums	Solid	300 drums		BES	
LPG Cylinders	Solid	2 - 25 lb tanks		AmeriGas	
Copper/Ferric sulfate Soil	Solid	310.94 tons			PH

\* DR - Dittmer Recycling

\* PH - Prairie Hill RDF

\*BES - BES Industrial Services (poly drum recycler)

Totals - Waste material approximately: 312 tons, 6,200 gallons, and approximately 14 tons of recycled material

## 2.2 Planning Section

### 2.2.1 Anticipated Activitie

Action Memorandum prepared and signed May 24, 2010.

#### 2.2.1.1 Planned Response Activities

Removal activities scheduled to begin July 7, 2010. Removal activities complete on October 21, 2010.

#### 2.2.1.2 Next Steps

#### 2.2.2 Issues

**2.3 Logistics Section**

No information available at this time.

**2.4 Finance Section****2.4.1 Narrative**

The below accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

**Estimated Costs \***

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$253,905.00	\$150,000.00	\$103,905.00	40.92%
TAT/START	\$37,375.00	\$35,417.00	\$1,958.00	5.24%
<b>Intramural Costs</b>				
USEPA - Direct	\$58,256.00	\$28,744.00	\$29,512.00	50.66%
<b>Total Site Costs</b>				
	\$349,536.00	\$214,161.00	\$135,375.00	38.73%

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

**2.5 Other Command Staff****2.5.1 Safety Officer**

Health and Safety plan complete, and approved by Roy Krueger, EPA SHEMP.

**2.6 Liaison Officer**

The City of Monticello, City Manager, Doug Herman and Iowa Brownfield Coordinator, Mel Pins have been notified of the removal start date, and removal activities.

**2.7 Information Officer**

**2.7.1 Public Information Officer** - Dianna Whitaker. A fact sheet has been completed and distributed in Monticello, IA. A administrative record site has been set up at the Monticello Public Library, Monticello, Iowa.

**2.7.2 Community Involvement Coordinator**

**3. Participating Entities**

No information available at this time.

**4. Personnel On Site**

Name	Title
Susan Fisher	OSC
Kevin Larson	OSC
Megan Schutte	OSC
Doug Ferguson	OSC
Mike Davis	OSC
Joe Ricard	EPA
Bryant Merriman	START
Rob Monning	START
Dave Kinroth	START
Evan Wortman	ERRS (with crew)
Dennis Wilson	ERRS (with crew)

**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.

Site Name: RIDDLE DRUM

S	▲	C	O	OU	Action Name	Sq	Ld	Planned			Actual			H	Qual	Critical Indicator	Takeover Phased	SCAP Note
								Start	FYQ	Complete	FYQ	Start	Complete					
				00	REMOVAL ASSESSMENT	001	F	00/00/0000		09/30/2010	2010/4	09/09/2009	07/12/2010					
				00	REMOVAL	001	F	09/30/2010	2010/4	03/31/2011	2011/2	07/12/2010	10/21/2010		C	Time Critical		
				00	Approval Of Action Memo	001	F	00/00/0000		00/00/0000		00/00/0000	05/24/2010					
				00	Final POLREP	001	F	00/00/0000		03/31/2011	2011/2	00/00/0000	08/17/2010					
				00	ADMINISTRATIVE RECORDS	001	F	00/00/0000		00/00/0000		07/21/2010	07/09/2011					
				00	RECORDS MANAGEMENT	001	F	00/00/0000		00/00/0000		00/00/0000	00/00/0000				OA	FINANCIAL
				00	NON-NPL PRP SEARCH	001	FE	08/19/2010	2010/4	12/31/2010	2011/1	07/12/2010	10/21/2010					
				00	COST RECVRY DECSN DOCMT	001	FE	00/00/0000		00/00/0000		00/00/0000	05/09/2011					



Find:

Site Name	Spill ID	County	EPA ID	Site ID	Archive Ind	FUOS	NPL Status
RICE ENGINEERING & OPERATING INC		BARTON	KSD002800811	0700455	Archived		Not on the NPL
RICH HILL FMGP		VERNON	MOD985775501	0702371	Archived		Not on the NPL
RICHARD FORMER USDA GRAIN STORAGE FACILITY		CALHOUN	IAN000703884	0703884			Not Valid Site or Incident
RICHARDS GEBAUR AFB WEST BURN PIT	078N	CASS	MO2570090025	0701748	Archived		Not on the NPL
RICHARDS GEBAUR AIR FORCE BASE	077W	CASS	MO9571824292	0701793		Y	Not on the NPL
RICHARDSON COMPLAINT		RENO	KSN000704128	0704128			Not Valid Site or Incident
RICHARZ ROAD	07WW	ST. LOUIS	MOD980853998	0701387	Archived		Not on the NPL
RICHLAND GROUNDWATER		PLATTE	NEN000705868	0705868			Not on the NPL
RICHMOND SCREW ANCHOR CO INC		BUCHANAN	MOD073068116	0701025	Archived		Not on the NPL
RICHMOND ST	078T	WYANDOTTE	KSD981718109	0700715	Archived		Not on the NPL
RICHTER FIREWORKS		SAUNDERS	NED986368413	0702244	Archived		Not on the NPL
RICHTER RESIDENCE		ST. LOUIS	MOD980972426	0701567	Archived		Not on the NPL
RIDDLE DRUM	A7S2	JOHNS	IAN000706068	0706068			Not on the NPL
RIDGEVIEW DRIVE PCE		SCOTT	IA0001894817	0703072	Archived		Not on the NPL
RIEMAN SWD		BARTON	KSD000830315	0700450	Archived		Not on the NPL

There are 6035 sites

EPA Site ID:  Site Section:

Site Name:

City,ST,Zip:

NPL Status:

Federal Facility:

Site Contact(s):

L-(ERNB) Emergency Response & RV North

Site Information	Removal
Site Assessment	Community Involvement
Site Comments	Remedy Selection
Federal Facilities	Project Management
Enforcement	Program Management

FISHER, SUSAN (913) 551-7819 Primary On-Scene Coordinator (OSC)  
 X-BRAECKEL, GERHART (913) 551-7471 Other Regional Contact  
 PETERSON, BARBARA (913) 551-7277 Regional Attorney  
 ROBERTS, DENISE (913) 551-7559 Regional Attorney

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