



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

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Ref: 8EPR-ER

AUG 2 2017

ACTION MEMORANDUM AMENDMENT

SUBJECT: Request for Approval and Funding of a Ceiling Increase and an exemption from the \$2 million and 12 month statutory limits for a CERCLA Removal Action at the Parish Chemical Company Site in Vineyard, Utah County, Utah

FROM: David Romero, Federal On-Scene Coordinator *David Romero*
Emergency Response Unit

THRU: Laura Williams, Chief *Laura Williams*
Emergency Response Unit
David A. Ostrander, Director *David A. Ostrander*
Emergency Response & Preparedness Program

TO: Betsy Smidinger
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation

I. Purpose

The purpose of this Action Memorandum Amendment (Amendment) is to request and document approval of a ceiling increase, continued exemption from the \$2 million statutory limit and an exemption for the 12-month limit for the time-critical removal action (TCRA) described in the September 12, 2013, Action Memorandum for the Parish Chemical Company Site (Site) located at 145 North Geneva Road, in the town of Vineyard, Utah County, Utah, 84058. This Action Memorandum Amendment also explains the reasons for the increased estimated costs of this removal action.

Since the original Action Memorandum with a cost ceiling of \$2,493,600 was approved, it has been determined that the U.S. Environmental Protection Agency (EPA) needs to perform more work at greater cost to complete the removal action than was originally estimated. Increases in off-site storage costs and under estimation of the costs associated with identifying complex chemicals and their disposal have resulted in unexpected additional expenditures. This Amendment requests an additional \$294,000 to support and continue storage costs until the final disposition of all chemicals is accomplished and to cover additional costs involved with disposal, bringing the new cost ceiling to \$2,787,600.

Materials were moved off-site to facilitate sale of the property at public auction and to allow for unrestricted Site use. On October 31, 2016, an environmental services company (Veolia

North America) took control of the remaining on-site inventory including thirty-one containers and, in January, disposed of five of those containers which contained lithium compounds. Disposition of the remaining containers, containing low-level radioactive materials, is expected by the end of the summer of 2017.

General Services Administration approval of increases in rental contracts has raised external storage costs for chemicals found at the Parish facility as they await testing for proper disposal. The sheer volume of unidentified compound chemicals added to the complexity of the work and lengthened the time required for completion. The original Action Memorandum, approved in September of 2013, included the segregation of chemicals into the broad categories of acids, bases, flammables, corrosives, water reactive and oxidizer chemicals; the mitigation of the effects of long-term exposure of containers to the elements; addressing the improper management of hazardous chemicals; and the containerization and transport of the more than 100,000 gallons of chemicals in large-size containers varying from 55 to 500 gallons to larger size (5,000 gal) vessels, along with more than 30,000 of small to mid-size containers of chemicals from five to 3,000 grams.

This removal action involves no nationally-significant or precedent-setting issues. This TCRA will not establish any precedent for how future response actions will be taken and will not commit the EPA to a course of action that could have a significant impact on future responses or resources. Conditions existing at the Site present a threat to public health and the environment and meet the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the National Contingency Plan (NCP).

II. Site Conditions and Background

A. Site Description

The previous Action Memorandum was signed September 12, 2013 (See Attachment #1).

Though the Parish structure, location and proximity to nearby residential and industrial communities are the same, everything else about the Site has changed. All the stored chemicals have been properly removed and disposed or are awaiting disposal. This has resulted in the elimination of potential exposures to the nearby communities and the environment.

B. Other Actions to Date

1. Previous Actions

A 2008 removal action focused on Site stabilization by removing and disposing of hazardous substances, pollutants, and/or contaminants that were stored in compromised containers. Since Parish Chemical Company is no longer in operation, the emphasis of the 2013 TCRA was to secure and properly dispose of the remaining hazardous substances, pollutants and/or contaminants present at the Site. Tasks included: Site security/inspection/assessment; Site stabilization; material

identification; storage management of incompatible and hazardous materials; proper transportation and disposal of hazardous materials, pollutants and/or contaminants (products, intermediaries, and wastes) as appropriate).

For the 2013 TCRA, the Site had a shelf-inventory of over 30,000 small to mid-size containers, ranging in quantity from 5-3,000 grams of potentially hazardous materials. In outside storage, subject to extreme fluctuations in temperature change, were 55 gallon drums and large tanks/totes which contained an estimated 100,000 gallons of hazardous materials (solvents, acids, oxidizers, flammable liquids, corrosives, caustics and heavy metals). The primary objective of the 2013 TCRA was to secure the Site by removing all hazardous materials including bulk liquids and solids, over-packing old deteriorated containers, segregating/categorizing incompatible substances, disposing of materials, and containing any existing releases.

These actions were performed to remove the volume of hazardous substances/wastes consistent with any Applicable or Relevant Appropriate Requirements (ARARs) or To Be Considered (TBC) such as guidelines outlined by the 2006 International Fire Codes IFC (2006 Chapter 27 Hazardous Materials, Chapter 34 Flammable and Combustible Liquids, Chapter 35 Water Reactive Substances, Chapter 39 Organic Peroxides, and Chapter 40 Class 3 Oxidizers), where possible. The work included the following:

- a. Inspecting the Site to verify the integrity of the facility equipment and determine volumes of hazardous substances;
- b. Segregation of incompatible chemicals and addressing proper storage issues throughout the Site; hazard categorizing of known and unknown products, intermediaries and wastes; transferring contents of tanks and drums for bulk waste shipments; transportation and disposal of such wastes;
- c. Decontaminating the Parish facility/equipment as necessary to prevent further release of hazardous substances to the environment;

The 2013 Action Memorandum (see Attachment #1) stated, "EPA may perform subsequent response activities at the Site to the extent necessary to protect public health or welfare or the environment and mitigate any additional threat of release of hazardous substances, or threat of release of pollutants or contaminants that may present an imminent and substantial threat to public health or welfare. Future response activities at the Site may include additional soil and groundwater assessments, and activities consistent with the results of the soil and groundwater investigations."

2. Current Actions

To facilitate sale of the property, the remaining 258 containers were moved off-site to a controlled warehouse for safe storage and monitoring, including 55-gallon

drums, 5 and 30-gallon containers and small vials. Security for the facility has reverted to the property trustee. Currently, no operations are being conducted on-site and the Parish facility is up for auction. Though hazcatted and properly packaged for transport and storage, these remaining containers of exotic materials are undergoing further tests for classification and disposal. This is anticipated to continue for the next couple of months.

III. Threats to Public Health or Welfare or the Environment and Statutory and Regulatory Authorities

Conditions at the Site presented a threat to public health and the environment, and met the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the NCP.

EPA considered all the factors described in 40 CFR 300.4125(b)(2) of the NCP and determined that the following factors applied at the Site.

- (i) *Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;*

 - The large number of containers (hazardous materials such as acids, ethers, oxidizers, corrosives and caustics that had to be overpacked) were corroded, leaking, and/or damaged and threatened surrounding businesses and residents with airborne exposure. In the event of a fire/explosion, this threat would have been multiplied by the increased concentration of hazardous material released into the air due to the substantial amount of chemicals stored at the Site. It was estimated that businesses and residents within a ½ mile radius could have been exposed to toxic fumes at substantial levels.
 - All chemicals have now been secured by an environmental services company (Veolia Environmental); final disposal requirements for these exotic materials are being identified by the disposal facility.

- (iii) *Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release;*

 - There was a large quantity of unknown, mislabeled containers and 55-gallon drums made of material that was not suited for long-term storage. There were solvents stored in plastic containers exposed to high temperatures. Over time, the solvents in the plastic drums could have leached out plasticizers making the structure of the drums weak and eventually causing them to fail. Site photographs showed 55-gallon drums, labeled as “corrosive,” that have failed, which allowed precipitation to enter the drum (through pitted holes/cracks) and material to spill from the drum. During high-precipitation months, runoff from leaking or failed drums increased the likelihood of off-site migration.
 - Integrity testing on large tanks at the Site had not been completed in years. These tanks contained hazardous wastes/ liquids (heavy metal germanium in acidic solution with pH of zero), and some lacked adequate secondary containment.

Without secondary containment, chemical spill and fires could have spread into adjacent areas, increased damage and involved additional containers of chemicals.

(iv) *High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;*

- The Parish facility maintained an inventory of approximately 1,500 large container/drums stored in the outside yard area. A large percentage of these drums were stacked on their sides, three and four high, leaking acids, oxidizers, corrosives and caustic materials to the ground. In addition, the weight of these drums put unwanted pressure on the drums lying on the bottom thus increasing the likelihood of a release onto the soils. Migration of the materials would likely affect the surrounding area.

(vi) *Threat of fire or explosion;*

- Flammables stored next to electrical panels that were not explosion proof;
- The management and storage of hazardous material at the Site could have led to a mixing of incompatibles. The mixing could result in an explosion or other violent reaction. Any of these events could pose a serious risk to the health of fire responders and the nearby public.
- In the event of a fire, the local fire department's response would be hindered due to a large quantity of water reactive materials (sodium, potassium t-butoxide, sulfonyl chloride) stored at different locations throughout the interior of the building.

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

- At the time, no other federal, local or state agency had the technical knowledge, expertise or resources to respond appropriately to the threats posed at the Site or to complete disposal activities.

IV. Endangerment Determination

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action described in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment. Further discussion of the imminent and substantial endangerment may be found in the June 10, 2008, Parish Chemical Company Site Technical Memorandum, which is part of the administrative record for this Site.

V. Exemption from Statutory Limits

Site conditions meet the emergency exemption criteria specified in this request for an exemption from the \$2 million statutory limit. The emergency exemption criteria are the

following: (i) continued response actions are immediately required to prevent, limit, or mitigate an emergency, (ii) there is an immediate risk to public health or welfare or the environment, and (iii) such assistance will not otherwise be provided on a timely basis.

A. Emergency Exemption

There is an immediate risk to public health or welfare or the environment if hazardous materials from the Site are not properly addressed. Hazardous materials from the Site include, but are not limited to: solvents, acids, oxidizers, peroxides, ethers, flammable liquids, corrosives, caustics, heavy metals, toxic and poisonous materials.

B. Continued Response Action

Response actions at the Site are complete. There were more than 100,000 gallons (500 gal. totes/250 gal. plastic containers /55 gal. drums) and over 35,000 small- to mid-size containers, ranging in quantity from 5-3,000 grams of known or potentially hazardous material at the Site. Many of these containers were in a severely compromised condition and/or rapidly deteriorating due to long-term exposure to the elements and improper management.

To facilitate sale of the property, the remaining 258 containers were moved off-site to a controlled warehouse for safe storage and monitoring, including 55-gallon drums, 5 and 30-gallon containers and small vials. Security for the facility has reverted to the property trustee. Currently, no operations are being conducted on-site and the Parish facility is up for auction. Though hazcatted and properly packaged for transport and storage, these remaining containers of exotic materials are undergoing further tests for classification and disposal. This is anticipated to be completed by the end of summer of 2017.

C. Assistance

Assistance will not otherwise be provided on a timely basis. Neither the state nor local authorities have the resources, technical knowledge or authority to complete the TCRA at this time.

VI. Proposed Actions and Estimated Costs

A. Proposed Actions

1. Proposed Action Description

All remaining lab pack (hazardous) materials at the Site have been transferred to another warehouse for safekeeping. The Parish facility will be offered for sale. Disposal contractors continue to process, test and verify remaining contents in lab

packs for disposal. It is anticipated that another 3 to 4 months is needed to close-out the remaining material at the warehouse.

2. Contribution to Remedial Performance

This effort will, to the extent practical, contribute to any future remedial effort at the Site. However, no further federal action is anticipated at this time.

3. Engineering Evaluation/Cost Analysis (EE/CA)

An EE/CA is not required for a time-critical removal action.

4. Applicable or Relevant and Appropriate Requirements (ARARs)

Currently identified federal and state ARARs are provided as Attachment 3 to the 2013 Action Memorandum. EPA will work with local and state health agencies to identify any concerns regarding waste disposal.

5. Project Schedule

The removal began in the fall of 2013 and was originally expected to be complete by June of 2014. Disposition and disposal of remaining containers is expected to be completed by the end of summer of 2017.

B. Estimated Costs*

	Original Estimate	Change	Revised
ERRS Cleanup	\$ 890,000	\$ -90,000	\$ 800,000
Transportation, Disposal, Storage	\$ 450,000	\$ +937,600	\$ 1,387,600
START	\$ 738,000	\$ -138,000	\$ 600,000
SUBTOTAL	\$2,078,000	\$ +709,600	\$ 2,787,600
Contingency (20%)	\$ 415,600	\$ -415,600	\$
Total Removal Project Ceiling	\$2,493,600	\$ +294,000	\$ 2,787,600

*EPA direct and indirect costs, although cost recoverable, do not count toward the removal ceiling for this Removal Action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

VII. Expected Change in the Situation if Action Delayed or Not Taken

Delayed action or no action at this Site would increase the actual or potential threats to the public health and/or the environment because of the potential for fire, explosion, and off-site migration of hazardous substances, contaminants or pollutants. A catastrophic release could result in contaminant migration into soil, water and air pathways to nearby businesses and residential communities.

VIII. Outstanding Policy Issues

None

IX. Enforcement

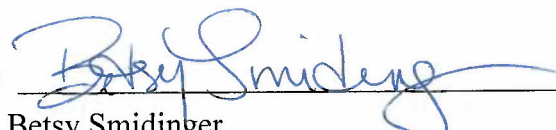
See the Enforcement Addendum prepared in conjunction with the original Action Memorandum (Attachment #1).

X. Recommendation

This decision document represents the selected removal action for the Parish Chemical Company Site in Vineyard, Utah County, Utah, 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 action, and I recommend your approval of an increase of \$294,000 from the original project ceiling of \$2,493,600. The new total project ceiling, if approved, will be \$2,787,600; this amount will be funded from the Regional removal allowance.

Approve: _____


Betsy Smidinger
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation

Date: _____

8/2/17

Disapprove: _____

Betsy Smidinger
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation

Date: _____

Attachment #1: Action Memorandum September 12, 2013



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

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Ref: 8EPR-ER

SEP 12 2013

ACTION MEMORANDUM

SUBJECT: Request for a time critical removal action and an exemption from the \$2 million statutory limit at the Parish Chemical Company Site in Vineyard, Utah County, Utah

FROM: David Romero, Federal On-Scene Coordinator
Emergency Response Unit

THRU: Laura Williams, Chief
Emergency Response Unit

David A. Ostrander, Director
Emergency Response & Preparedness Program

TO: Martin Hestmark, Assistant Regional Administrator
Office of Ecosystems Protection and Remediation

I. Purpose

The purpose of this Action Memorandum is to request and document approval of an exemption from the \$2 million statutory limit for the time-critical removal action (TCRA) described herein for the Parish Chemical Company Site (Site) located at 145 North Geneva Road, in the town of Vineyard, Utah County, Utah, 84058.

This TCRA will reduce the potential threat of fire, explosion, and/or release of hazardous materials from thousands of containers of acids, bases, flammables, corrosives, water reactive, and oxidizer chemicals stored outdoors and several thousand smaller containers indoors at the Site. Conditions existing at the Site present a threat to public health and the environment and meet the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the National Contingency Plan (NCP).

This removal action involves no nationally-significant or precedent-setting issues. This TCRA will not establish any precedent for how future response actions will be taken and will not commit the US Environmental Protection Agency (EPA) to a course of action that could have a significant impact on future responses or resources.

II. Site Conditions and Background

Site Name:	Parish Chemical Company Site
Superfund Site ID (SSID):	08X4
NRC Case Number:	
CERCLIS Number:	UTD072988173

Site Location:	145 North Geneva Road, Orem (Vineyard) Utah County, Utah
Lat/Long:	40° 18' N / 111° 44' 2" W
Potentially Responsible Party:	Parish Chemical Company
NPL:	Non NPL
Removal Start Date:	July 08, 2013
Removal Completion Date:	March 2014
Removal Category:	Time-Critical
Response Type:	Fund Lead Response Authority: CERCLA

A. Site Description

1. Removal Site Evaluation

The Site is a former specialty chemical manufacturing company that has operated at its present location since 1978. The Parish facility has had difficulty complying with local, state, and federal regulations and garnered attention when a ½ mile radius around the Site was evacuated due to a fire on the second floor of the main building in 1992. Site inspections by local and state regulators led to a request by the Utah Department of Environmental Quality (UDEQ) for EPA to conduct a removal assessment and, if warranted, conduct a removal action. During a 2008 joint inspection with UDEQ, EPA observed numerous hazardous waste violations – many of which had been noted and documented in the local and state inspections.

EPA approved a TCRA on April 8, 2008, and commenced response activities on April 10, 2008, (herein referred to as the 2008 Removal Action). The objective of the 2008 Removal Action was to stabilize the Site and mitigate the threat of release posed by the hazardous substances, pollutants or contaminants present at the Site. This included removing large quantity containers (hazardous materials such as acids, ethers, oxidizers, corrosives and caustics) and smaller containers (5-3,000 grams of material) that were in the process of failing, leaking or in serious disrepair.

Once the 2008 Removal Action was completed, Parish resumed manufacturing activities at the Site. Large quantities of various chemicals continued to be stored and improperly managed until Parish formally shutdown in 2013.

Following the 2008 Removal Action (April 10 through May 2, 2008), the On-Scene Coordinator (OSC) led a joint EPA/State of Utah Department of Environmental Quality (UDEQ) technical team facility re-inspection on May 14, 2009, and July 28, 2010. Based on the findings of the 2009 and 2010 facility re-inspection visits and a separate independent visit performed in 2013 by UDEQ, the OSC noted many of the same concerns that had prompted the 2008 Removal Action. These concerns include but are not limited to:

- Appropriate (incompatible) chemical segregation is not maintained throughout the Site (oxidizers stored next to flammables, and acids next to flammables);
- Storage of hazardous materials subject to extreme temperature fluctuations (drum yard storage area and the veranda storage area);
- Reoccurring inconsistent and/or non-existent labeling in chemical storage areas throughout the Site;
- Open wiring and and/or ignition sources throughout the Site;

- Storage container deterioration (corroded, leaking, damaged) throughout the Site (several dented and misshapen drums stored below other heavier drums indicating potential drum failure and risk of top drums falling);
- Secondary containment is not present and/or functional in enclosed (cracked vessels with no containment) and outside areas (visual observation staining on the ground beneath a number of drums; indicative of drum leakage to soils);
- Flammable and combustible liquids not stored in an approved flammable liquid storage room; and
- Numerous fire code violations presenting a danger to individuals on-Site, surrounding businesses and residential communities.

2. Physical Location

The approximately 2.5 acre Site is located in Vineyard, Utah between the city of Orem and Utah Lake. The area surrounding the Site consists of light residential and industrial businesses. An elementary school and I-15, a major interstate corridor, are both located within a ¼ mile radius from the Site. Census data from 2010 describes a population of 6,000 per one mile radius. Locally, extreme temperature variations, hot in the summer and cold in the winter, likely contribute to the physical deterioration of container vessels through expansion and contraction.

3. Site Characteristics

The Parish Chemical Company was founded in 1972 and began operations at the Site in 1978. Various building-rooms house a plethora of small and medium-sized containers of (reportedly) at least 15,000 various chemicals/compounds in quantities ranging from 5-3,000 grams. The facility-supplied inventory contained no information about the contents of any inside or outside storage vessels.

EPA's Region 8 emergency response program was contacted during the 1992 fire that resulted in the evacuation of a ½ mile radius around the Site as well as temporary closure of the nearby Interstate highway. Due to the presence of water-reactive chemicals, it was decided to let the fire burn itself out. The fire started in an upstairs laboratory/stockroom and quickly burned out the surrounding area. The burned out area, now referred to as the "veranda," is open to the elements and located on the 2nd floor in the northeast part of the building. The veranda is presently used as an open/unenclosed drum and container storage area. A removal action was initiated in 2008 to stabilize the outdoor chemical storage area where approximately 1800 containers (mostly 55-gallon drums and 300-gallon totes) were stored.

Groundwater beneath the Site during spring and early summer periods rises to the point where infiltration occurs in the impoundments and in building interior sump(s). Preliminary analytical results from groundwater samples collected from perimeter monitoring wells show elevated levels of hazardous substances in shallow groundwater underlying the Site.

In addition to the release of hazardous substance(s) noted above, the improper storage of hazardous materials poses additional threats of release. Hazardous substances are currently being stored at the Site in leaking, deteriorating, and/or mis-labeled tanks, totes and/or drums. Incompatible wastes are currently being stored at unsecured Site locations.

Currently, the Parish facility business is insolvent and has been transferred to a trust for holding until environmental issues are addressed.

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

Delayed action will increase public health risks because of the potential for fire, explosion, and off-site migration of hazardous substances, pollutants or contaminants from compromised containers. A catastrophic release could result in migration into soil, water, and air pathways to nearby businesses and residents.

Hazardous substances, as defined by Section 101 (14) of CERCLA and 40 CFR 302.4, have been released or pose a substantial threat of release at the Site. Numerous storage containers and vessels are leaking, and/or deteriorating. Data collected at the Site during re-inspection visits in 2009 and 2010 demonstrate the release and substantial threat of release of hazardous substances, pollutants or contaminants. Many of the examples given below are systemic throughout the Site.

- Numerous hazardous materials being stored in drums that, over time, will leak or cause the drum to fail (solvents stored in plastic drums outside in winter/summer temperatures). The solvents in the plastic drums will leach out plasticizers (a crystallization unstable degradation product) contributing to eventual drum failure and instability;
- Veranda (partially enclosed area) issues include: containers exposed to outside elements, multiple containers with inadequate or missing labels, old metal drums on pallets below shelving labeled "poison" with no dates and no other identification on the label, incompatible oxidizers and corrosives stored next to each other, incompatible acids and flammables stored next to each other, chemicals that have reacted in containers and spilled out onto shelf or formed crystallized product on container opening (no secondary containment);
- Drum yard (outside open air) issues include: drums improperly stored with unsecured lids, drums bulging from pressure accumulation (potential for drum failure), several dented, pitted, rusted and misshapen drums stored below other heavier drums (potential drum failure and risk of top drums falling);
- Research and Development Laboratory issues include: chemical storage next to electrical panel (fire hazard), shelves containing rusty, leaky containers with chemical incompatibles present, inadequate labels on containers with no expiration dates;

- Stockroom D issues include: incompatibles stored next to each other (oxidizers next to flammables), inorganics and organics stored back to back on shelving with insufficient separation distance (incompatibles), and inadequate labels on containers with no expiration dates;
- Numerous 55 gallon drums throughout the facility (either leaking, crushed, corroded or leaning) with labels containing hexane/methylene chloride/corrosive acids/oxidizers/flammable liquids/toxic substances with no secondary containment;
- Numerous containers and/or 55 gallon drums of highly explosive water reactive material, labeled as sodium metal, stored within close proximity of leaking piping, faucets and leaking roof.

The Site's close proximity to an elementary school, residences, businesses, and Interstate 15 are of particular concern in the event of a fire or catastrophic release of chemicals. In the event of fire, explosion, or other release, or the continued migration of hazardous substances that have already been released, the surrounding population could become endangered. Fumes could drift into nearby neighborhoods and businesses and a fire or explosion would present additional complications. Common routes of exposure include fire/explosion and resulting emissions, human contact, and soil contamination with the concomitant threats of ingestion or contamination of ground water. Leakage from drums and subsequent release into the environment has been observed and inadequate secondary containment poses an additional threat of release. In summary, the Site has an inventory of over 15,000 small to mid-size containers, ranging in quantity from 5-3,000 grams of potentially hazardous materials. It also contains 55 gallon drums and large tanks/totes with an estimated 100,000 gallons of hazardous material (solvents, acids, oxidizers, flammable liquids, corrosives, caustics, and heavy metals) located in the outside yard subjected to extreme fluctuations of temperature change.

5. NPL status

This Site is neither on nor currently being considered for inclusion on the NPL.

6. Maps, Pictures, Other Geographic Representations

A map of the Site is available as Attachment 1. Relevant Site photos are available in Attachment 2 of this document, in the Site file and in the Administrative Record.

B. Other Actions to Date

1. Previous Actions

Since the fire incident in 1992, both the UDEQ, EPA Resource Conservation and Recovery Act (RCRA) and EPA Removal programs have conducted inspections of the Parish Chemical Facility. Both agencies have cited numerous violations that

continue to be unaddressed by Parish Chemical Facility. Fire safety inspection reports conducted by Vineyard Fire Prevention Inspector have also cited numerous violations that remain outstanding. The 2008 Removal Action stabilized and cleared damaged, pitted, rusted, and compromised containers to prevent any potential release of hazardous materials, pollutants, and/or contaminants into the environment. The 2008 Removal Action successfully eliminated the potential release of thousands of gallons of hazardous chemicals into the environment.

2. Current Actions

There are no current activities on the Site.

C. State and Local Authorities' Role

1. State and Local Actions to Date

Local authorities have provided assistance wherever possible. State and local authorities' actions centered around law enforcement actions only, and do not contribute to Site cleanup.

2. Potential for Continued State/Local Response

State and local entities do not have the resources or authority to conduct this removal action.

II. Threats to Public Health or Welfare or the Environment and Statutory and Regulatory Authorities

Conditions at the Site present a threat to public health and the environment, and meet the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the NCP.

EPA has considered all the factors described in 40 CFR 300.4125(b) (2) of the NCP and determined that the following factors apply at the Site. The following factors from Section 300.415 (b) (2) of the NCP form the basis for EPA's determination of the threat presented, and the action to be taken:

- (i) *Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminant;*
 - The large number of containers (hazardous materials such as acids, ethers, oxidizers, corrosives and caustics) which are corroded, leaking, and/or damaged threaten surrounding businesses and residents with airborne exposure. In the event of a fire/explosion, this threat would be multiplied by the increased concentration of hazardous material released into the air due to the substantial amount of chemicals stored at the Site. It is estimated that businesses and residents within a ½ mile radius may be exposed to toxic fumes at substantial levels.

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

- As previously mentioned, there is a large quantity of unknown, mislabeled containers and 55-gallon drums made of material that is not suited for long-term storage. There are solvents stored in plastic containers exposed to high temperatures. Over time, the solvents in the plastic drums will leach out plasticizers making the structure of the drums weak and eventually causing them to fail. Site photographs show 55-gallon drums, labeled as "corrosive," that have failed, allowing precipitation to enter the drum (through pitted holes/cracks) and material to spill from the drum. During high-precipitation months, runoff from leaking or failed drums increases the likelihood of off-Site migration.
- Integrity testing on large tanks at the Site has not been completed in years. These tanks contain hazardous wastes/ liquids (heavy metal germanium in acidic solution with pH of zero), and some lack adequate secondary containment. Without secondary containment, chemical spill and fires can spread into adjacent areas, increasing damage and involving additional containers of chemicals.

(iv) *High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;*

- The Parish facility maintains an inventory of approximately 1,500 large container/drums stored in the outside yard area. A large percentage of these drums are stacked on their sides, three and four high, leaking acids, oxidizers, corrosives and caustic materials to the ground. In addition, the weight of these drums puts unwanted pressure on the drums lying on the bottom thus increasing the likelihood of a release onto the soils. Migration of the materials would likely affect the surrounding area.

(vi) *Threat of fire or explosion;*

- Flammables stored next to electrical panels that are not explosion proof;
- The management and storage of hazardous material at the Site could lead to a mixing of incompatibles. The mixing could result in an explosion or other violent reaction. Any of these events could pose a serious risk to the health of fire responders and the nearby public.
- In the event of a fire, the local fire department's response would be hindered due to a large quantity of water reactive materials (sodium, potassium t-butoxide, sulfonyl chloride) stored at different locations throughout the interior of the building.

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

- At this time, no other federal, local or state agency has the technical knowledge, expertise or resources to respond appropriately to the threats posed at the Site.

III. Endangerment Determination

Actual or threatened releases of hazardous substances from this Site, if not addressed by

implementing the response action described in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment. Further discussion of the imminent and substantial endangerment may be found in the June 10, 2008 Parish Chemical Company Site Technical Memorandum, which is part of the administrative record for this Site.

IV. Exemption from Statutory Limits

Site conditions meet the emergency exemption criteria specified in this request for an exemption from the \$2 million statutory limit. The emergency exemption criteria are the following: (i) continued response actions are immediately required to prevent, limit, or mitigate an emergency, (ii) there is an immediate risk to public health or welfare or the environment, and (iii) such assistance will not otherwise be provided on a timely basis.

A. Emergency Exemption

There is an immediate risk to public health or welfare or the environment if the Site is not secured and hazardous materials are not properly addressed. Hazardous materials present at the Site include, but are not limited to: solvents, acids, oxidizers, flammable liquids, corrosives, caustics, heavy metals, toxic and poisonous materials. The insolvency of the business and the substandard condition of the facility as documented in the Fire Inspection Report (Town of Vineyard February 19, 2008) increases the level of risk to the community.

EPA evaluated one possible scenario at the Site using Areal Locations of Hazardous Atmosphere (ALOHA) model (Refer to EPA Technical Memo generated June 10, 2008). If a fire or explosion occurred, such that the cylinders of bromine gas that are stored on-Site were compromised, a bromine plume could form with potentially disastrous consequences. Bromine is a particularly toxic, persistent, dense, non-flammable chemical; however, other chemicals besides bromine, including combustion byproducts, would also likely be involved in a serious fire or explosion at the Site. This would result in a more toxic mixture with larger and more complex downwind zones of influence than reflected in the simple bromine scenario used in the ALOHA model.

B. Continued Response Action

Continued response actions at the Site are immediately required to prevent, limit, or mitigate an emergency. There are more than 100,000 gallons (500 gal. totes/250 gal. plastic containers /55 gal. drums) and over 15,000 small- to mid-size containers, ranging in quantity from 5-3,000 grams of known or potentially hazardous material at the Site. Many of these containers are in a severely compromised condition and/or rapidly deteriorating due to long-term exposure to the elements and improper management. Continued exposure of these containers without response actions and proper management and disposal will significantly increase the risk of a release, particularly for containers stored outdoors, due to vandalism as well as continuing degradation of the containers.

- **Sodium Methoxide:** A water-reactive flammable solid. Auto-ignition is possible in moist air. This material reacts with light metals to form flammable hydrogen gas. It also hydrolyzes into methanol, a flammable liquid, and sodium hydroxide, a strong corrosive base.
- **Sodium Metal:** An air-reactive and water-reactive flammable solid. This material can react vigorously with water and moist air to release flammable hydrogen gas. It may also reignite after the fire is extinguished. This material must be submerged in mineral oil to prevent air/water contact. However, during the 2008 Removal Action, sodium containers were found without mineral oil, resulting in oxidation of the material.
- **Epichlorohydrin:** An unstable water-reactive flammable liquid. Hazardous decomposition products include carbon monoxide, hydrogen chloride, and phosgene.
- **Lithium Aluminum Hydride:** A water-reactive flammable solid. This material may ignite spontaneously because of friction or static electricity. Reaction with water produces flammable hydrogen gas.

The timing and ultimate failure of the containerized hazardous material at the Site cannot be predicted. This is especially true for the materials exposed to the outside elements. To protect public health and the environment, a response action is required immediately.

C. Assistance

Assistance will not otherwise be provided on a timely basis. Neither the State nor local authorities have the resources, technical knowledge or authority to conduct a TCRA at this time. The Site has been transferred from receivership to a trust. The trust has limited capability and finances, and cannot contribute to this action.

V. Proposed Actions and Estimated Costs

A. Proposed Actions

1. Proposed Action Description

The 2008 Removal Action focused on site stabilization by removing and disposing of hazardous substances, pollutants, and/or contaminants that were stored in compromised containers. Now that the Parish Chemical Company is no longer in operation, the emphasis of this TCRA will be to secure and properly dispose of remaining hazardous substances, pollutants and/or contaminants present at the Site. This task includes, but is not limited to the following: Site security/inspection/assessment; Site stabilization; material identification; storage management of incompatible and hazardous materials; proper transportation and disposal of hazardous materials, pollutants and/or contaminants (products, intermediaries, and wastes, as appropriate).

The primary objective of this removal action is to secure the Site by removing bulk liquids and solids, over-packing old deteriorating containers, segregation/categorization of incompatible substances, removal and disposal, and containing any existing releases. These actions will be performed, as necessary, to remove the volumes of hazardous substances/wastes consistent with any Applicable or Relevant Appropriate Requirements ("ARARs") or To Be Considered ("TBC's") such as guidelines outlined by the 2006 International Fire Codes IFC (2006 Chapter 27 Hazardous Materials, Chapter 34 Flammable and Combustible Liquids, Chapter 35 Water Reactive Substances, Chapter 39 Organic Peroxides, and Chapter 40 Class 3 Oxidizers), where possible. The work includes but may not necessarily be limited to the following:

- a. Inspecting the Site to verify the integrity of the facility equipment and determine volumes of hazardous substances;
- b. Segregation of incompatible chemicals and addressing proper storage issues throughout the Site; hazard categorizing of known and unknown products, intermediaries and wastes; transferring contents of tanks and drums for bulk waste shipments; transportation and disposal of such wastes;
- c. Decontaminating the Parish facility/equipment as necessary to prevent further release of hazardous substances to the environment;

As yet to be determined, EPA may perform subsequent response activities at the Site to the extent necessary to protect public health or welfare or the environment and mitigate any additional threat of release of hazardous substances, or threat of release of pollutants or contaminants that may present an imminent and substantial threat to public health or welfare. Future response activities at the Site may include additional soil and groundwater assessments, and activities consistent with the results of the soil and groundwater investigations.

2. Contribution to Remedial Performance

This effort will, to the extent practical, contribute to any future remedial effort at the Site. However, no further federal action is anticipated at this time.

3. Engineering Evaluation/Cost Analysis (EE/CA)

An EE/CA is not required for a time-critical removal action.

4. Applicable or Relevant and Appropriate Requirements (ARARs)

This Action Memorandum addresses the proposed TCRA at the Parish Chemical Company Site. There are numerous contaminants of concern including acids, bases, corrosives, caustics, poisons, toxins, flammables, and oxidizers. Removal actions conducted under CERCLA are required, to the extent practicable considering the

exigencies of the situation, to attain ARARs. In determining whether compliance with an ARAR is practicable, the lead agency may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

Currently identified federal and state ARARs are provided as Attachment 3 to this Action Memorandum. EPA will work with local and state health agencies to identify any concerns regarding waste disposal.

5. Project Schedule

This removal action is proposed to start in the summer of 2013. It is anticipated that packaging and removal of the hazardous chemicals will take approximately four months. Disposal will likely take an additional four weeks to arrange, with final disposition occurring shortly thereafter. Completion is expected by March 2014.

<u>Activity</u>	<u>Est. Comp. Date</u>
a. Mobilization	September 2013
b. Stabilization/Removal	April 2014
c. Transportation/disposal off-Site (bulk liquids/solids and container waste)	April 2014
d. Debris Disposal	April 2014
e. Demobilization	March 2014

B. Estimated Costs*

ERRS Cleanup	\$890,000
Transportation & Disposal	\$450,000
START/ERT	\$738,000
SUBTOTAL	\$2,078,000
Contingency (20%)	\$415,600
Total Removal Project Ceiling	\$2,493,600

*EPA direct and indirect costs, although cost recoverable, do not count toward the removal ceiling for this Removal Action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

VI. Expected Change in the Situation if Action Delayed or Not Taken

Delayed action or no action at this Site would increase the actual or potential threats to the public health and/or the environment because of the potential for fire, explosion, and off-Site migration of hazardous substances, contaminants, or pollutants. A catastrophic release could result in contaminant migration into soil, water, and air pathways to nearby businesses and residential communities.

VII. Outstanding Policy Issues

None

VIII. Enforcement

Based on the history of the Parish Chemical Company facility, including failure to comply with state and local Fire Marshall environmental compliance orders and directives and the significant outstanding RCRA violations, EPA determined that Parish cannot and/or will not perform the necessary response action(s) promptly or properly. EPA has notified the owner/operator of this proposed removal action and the owner/operator of the facility has granted EPA access. A separate Enforcement Addendum provides a confidential summary of current and potential future enforcement actions for this Site.

IX. Recommendation

This decision document represents the selected removal action for the Parish Chemical Company Site in Vineyard, Utah County, Utah, 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 action, and I recommend your approval of the proposed removal action. The total project ceiling, if approved, will be \$2,493,600; this amount will be funded from the Regional removal allowance.

Approve: Martin Hestmark
Martin Hestmark, Assistant Regional Administrator
Office of Ecosystems Protection and Remediation (EPR)

Date: 9/12/13

Disapprove: _____
Martin Hestmark, Assistant Regional Administrator
Office of Ecosystems Protection and Remediation (EPR)

Date: _____

Attachments: 1 - Site Location
2 - Site Photos
3 - ARARs Identified to Date

Supplemental Documents

Support/reference documents that may be helpful to the reader and/or have been cited in the report may be found in the Administrative Record File at the Superfund Records Center for Region VIII EPA, 1595 Wynkoop Street, Denver, Colorado 80202.



Attachment 1 Site Location



Attachment 2
Parish Site Photos



Outside Storage Area: Failing Drum Leaking Contents



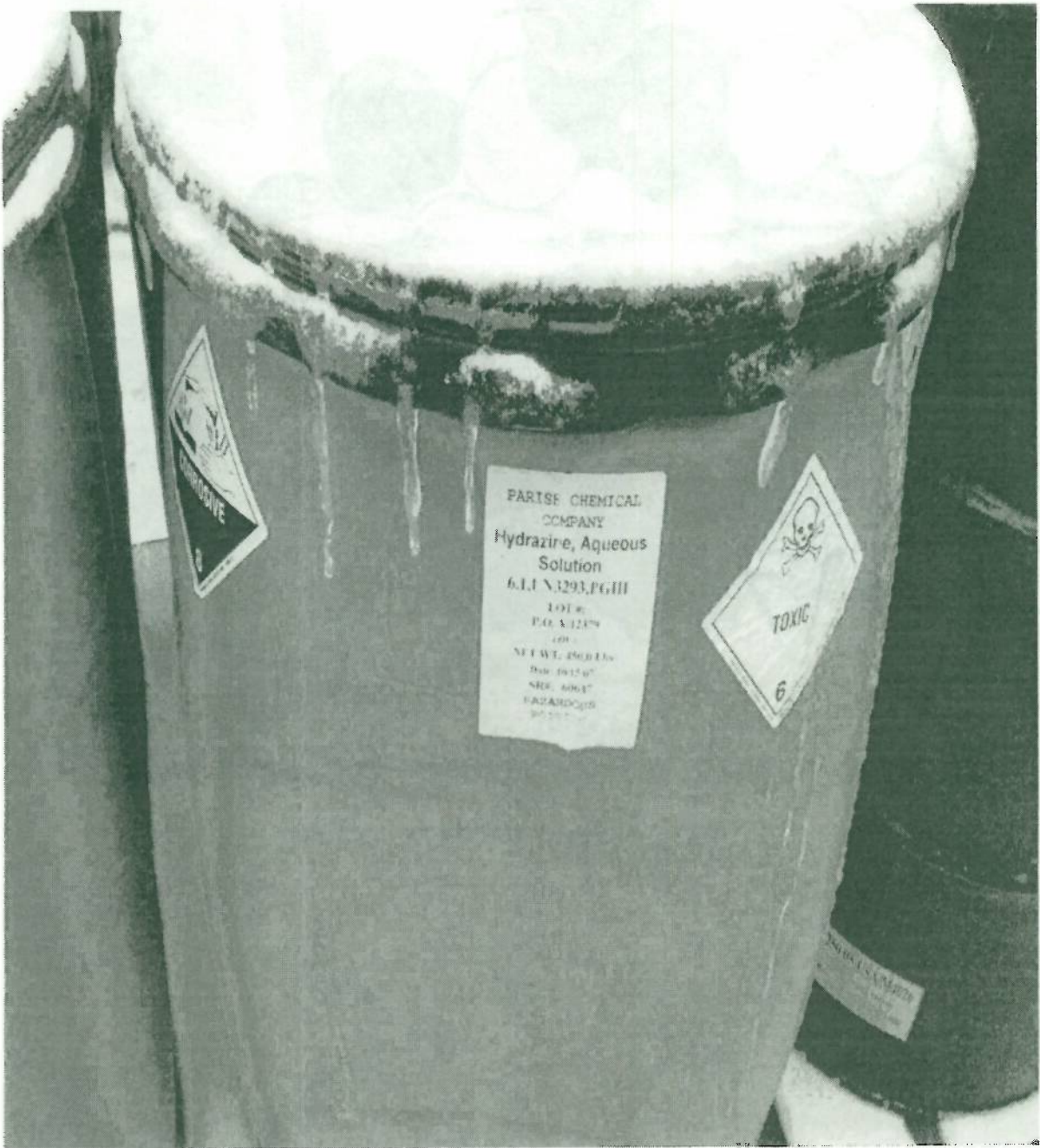
Outside Storage Area: Compromised Drum Leaking Contents



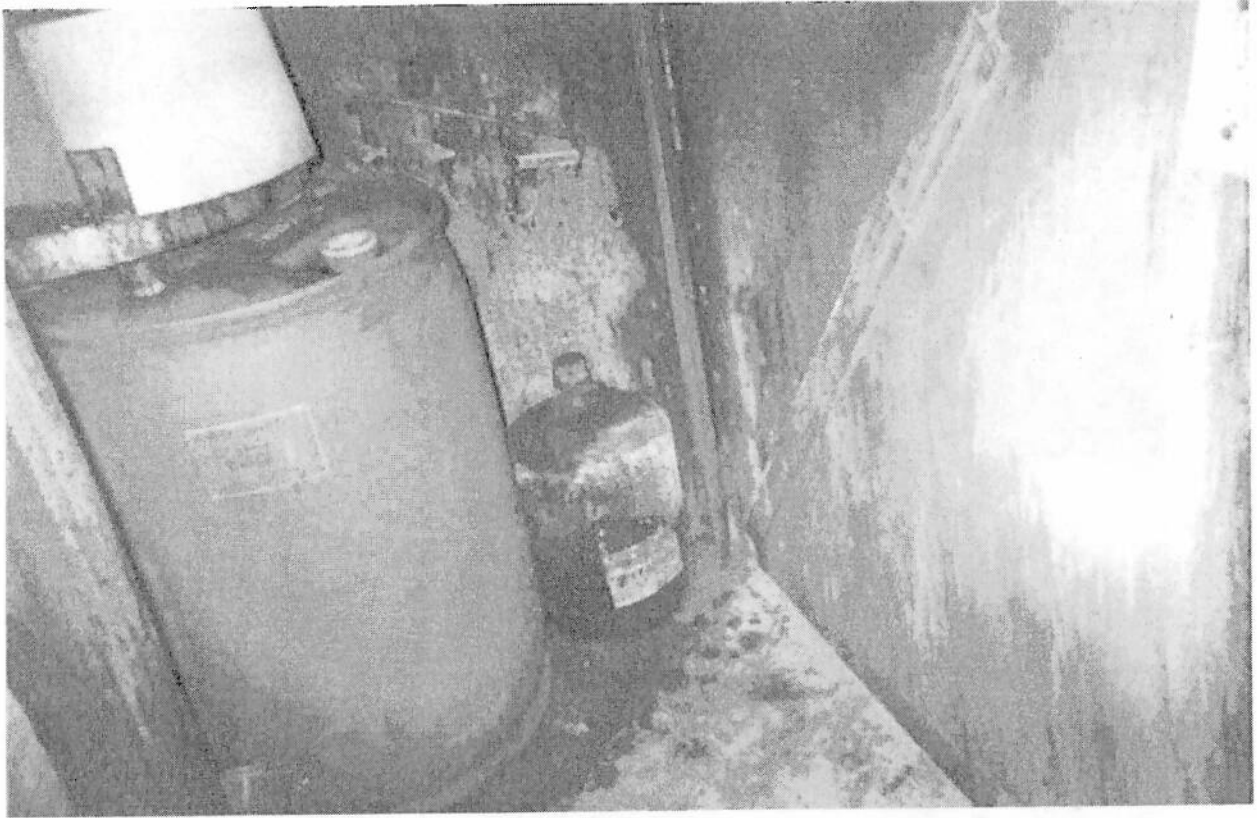
Outside Storage Area: Corroded Lid



Outside Storage Area: Old Failing Drums



Hydrazine unsecured and exposed to outside elements



Inside Facility: Failing container crystallization occurring on the outer surface



Outside Storage Area: Failing Drum



Outside Temporary Storage Unit: Old and Deteriorated Drums

Attachment 3

**POTENTIAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS
IDENTIFIED TO DATE**

LIST OF STATE ARARs*

- 1) Utah Solid and Hazardous Waste Management Act and Rules; Utah Code Ann. (UCA) Title 19, Chapter 1, Part 5; Utah Administrative Code (UAC) R315-2-1 (Applicable).
- 2) Non-Attainment Area for PM10: Fugitive emissions and fugitive dust, UAC R307-309 (Applicable).
- 3) Hazardous waste generator requirements, UAC R315-5 (Applicable).
- 4) Hazardous waste transporter requirements, UAC R315-6 (Applicable).
- 5) Manifest system, record-keeping and reporting, UAC R315-8-5 (Applicable).

*Federal ARARs replaced by State of Utah's direct implementation of RCRA.