

October 18, 2016

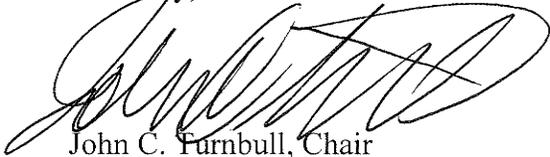
Jim Macy, Director
Nebraska Department of Environmental Quality
Suite 400, The Atrium
1200 N Street
Lincoln, NE 68509-8922

Dear Mr. Macy:

Enclosed is a copy of the Hazardous Waste Site Review Committee Final Report for the Hall County Nebraska Site of the Heritage Disposal and Storage, LLC, Hazardous Waste Storage and Incinerator Facility. The Committee held eight public meetings from April through October 2016 and had the opportunity to tour the proposed facility, ask questions about all aspects of the operation and raise issues and concerns; all questions were answered and all concerns/issues were addressed.

If you have any questions about the contents of the report or the process followed by the Committee, I would be pleased to discuss them with you. It was a great pleasure to serve as chair of this Committee of dedicated and interested Nebraskans.

Sincerely,

A handwritten signature in black ink, appearing to read "John C. Furnbull", written in a cursive style.

John C. Furnbull, Chair
Hazardous Waste Site Review Committee



Hazardous Waste Site Review Committee Final Report

For the Hall County, Nebraska Site
of the Heritage Disposal and Storage,
LLC, Hazardous Waste Storage and
Incinerator Facility

October 18, 2016

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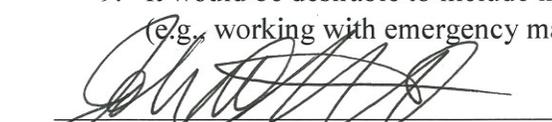
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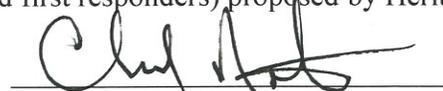
Hazardous Waste Site Review Committee Final Report

Executive Summary

This report by the Hazardous Waste Site Review Committee is based on the review of the Heritage Disposal and Storage, LLC proposal for a hazardous waste storage and incinerator facility in Hall County Nebraska. The proposed facility is for thermal treatment and disposal of Hexachloroethane (HC) smoke materials (most commonly found in smoke grenades) and metal containers containing the HC. Heritage was awarded a five-year contract by the U.S. Department of Defense to dispose of the HC-smoke materials. Pursuant to Neb. Rev. Stat. Sections 81-1521.08 to 81-1521.23, the committee was composed of 12 members – six appointed by local government and six appointed by the Nebraska Department of Environmental Quality. The committee held eight public fact-finding meetings from April through October 2016. Each meeting complied with the Nebraska Open Meetings Act. The committee finds the following:

1. The site appears to be uniquely suited to the task because of the availability of storage bunkers and other facilities, the long history of successfully engaging in similar types of storage and treatment operations, the appropriate security features, and there will be no impingement on the property by residential development.
2. The management processes involved appear appropriate to the operation and suitable for safe and effective thermal treatment of HC. Plans for future expansion appear to be feasible and appropriate.
3. The proposed approach appears to be an appropriate technology for the treatment of HC that is reliable and cost effective. The storage, treatment, and disposal of hazardous waste appears to be well-designed with adequate quality controls.
4. The proposed operation appears appropriate to protect surface and ground water and air quality, and addresses other environmental concerns.
5. The applicable regulations and monitoring plans for Heritage and the regulatory agencies appear adequate for ensuring compliance with current standards.
6. The committee finds the routes and methods used for transporting hazardous materials to and from the facility appear to be adequate. Waste containment during transportation and response plans in case of spills appear appropriate. The planned amount of additional transport from this operation appears to not be detrimental to the community.
7. The plan for Heritage to work with local emergency management will likely result in appropriate site security, qualifications and training of personnel, preparation for emergencies and coordinated action in the event of operating problems.
8. Heritage has operated successfully in the community for many years and the jobs brought to the community will enhance the economy. Heritage appears to have a feasible plan to sustain and expand its operations in hazardous waste storage and treatment. There appear to be adequate financial safeguards in place to reduce the risk of financial burden on the community in the event of closure.
9. It would be desirable to include in the local conditional use permits beneficial practices (e.g., working with emergency management and first responders) proposed by Heritage.


John Turnbull, *Committee Chair*


Chad Nabity, *Co-chair*

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Background

Nebraska Review Process

Nebraska law requires a review process for commercial hazardous waste facilities (a copy of the relevant statutes can be found on page 212). The law requires the following:

- The individual, company or organization wishing to construct a commercial hazardous waste management facility must file a notice of intent with the director of the Nebraska Department of Environmental Quality (NDEQ).
- Within 15 days of filing, the director must notify local officials and establish a specific site review committee. The committee must meet within 21 days of the filing.
- The committee must consist of 12 members. Six local members are appointed by local officials. Six regional members are appointed by the director of NDEQ and must represent environment, academia, industry, community planning, public interest, and medical community.
- The department must select a professional facilitator to handle public meetings and provide a secretary and other staff to assist the committee. The director serves as temporary chair of the committee until the committee selects its own chair at the first meeting. The applicant must provide a technical advisor and resource experts to the committee.
- The committee is required to hold fact-finding meetings near the proposed site and must address the following factors:
 1. Economic considerations such as whether the facility is needed, profit expectations for the facility, how the facility will be operated, effects on the community, the potential for compensation to the local governing body, and aspects related to closure of the facility;
 2. The function of the facility, including the management processes involved, the wastes to be handled, the relationship to any integrated system of master plan for hazardous waste management, and plans for future expansion;
 3. Considerations related to the technology to be used such as why that process was chosen, plans for quality control, reliability of technology, and the sequence of steps involved from generation of wastes to post-closure of facility;
 4. Characteristics of the site for the facility, the methods for determining the characteristics, and why the site was chosen;
 5. Surface drainage, ground water protection, air emissions, and other factors related to environmental quality;
 6. Transportation considerations such as methods to be used, waste containment during transport, the party responsible for transport, timing of arrivals, routing, and response plans in case of spills.
 7. Plans for responses to emergencies and for site security, qualifications, and training of personnel, and actions to be taken when there are operating problems.

Hazardous Waste Site Review Committee Final Report

8. Enforcement provisions, including applicable regulations, monitoring plans, who is responsible for enforcement, sequence and timing of possible enforcement, and the ability of governmental agencies to ensure compliance.
- Within 180 days of the filing, the committee must issue a report documenting discussion of community concerns and issues raised, how concerns/issues were resolved, and if any issues/concerns were not resolved; the report must also document questions asked and the answers to those questions. If questions were not answered, the report must document the reasons they were not answered.
 - After the committee has issued its report, the person or organization may apply for a permit for the commercial hazardous waste management facility. The director of NDEQ forwards to the county board the application, the committee report and any response to the committee report by the applicant. The county board determines if the application complies with local zoning laws and ordinances. If the county board approves the application, NDEQ will then determine if the application complies with the provisions of the Nebraska Environmental Protection Act and all rules, regulations, and standards promulgated pursuant to such act.
 - Additional procedural requirements can be found in Neb. Rev. Stat. Sections 81-1521.08 to 81-1521-.23 located on page 212, and a description of the review process can be found in the April 25, 2016 Meeting Minutes in this report.

Notice of Intent

On April 8, 2016, the Nebraska Department of Environmental Quality received from Heritage Disposal and Storage, LLC (Heritage) a notice of intent to develop a hazardous waste treatment/storage facility in Hall County near the town of Alda. On April 21, 2016 Heritage submitted a second notice of intent with a more comprehensive description of the proposed facility (the notice of intent can be found on page 220). The applicant intends to build a facility for storage, thermal treatment and disposal of Hexachloroethane (HC) smoke materials (most commonly found in smoke grenades) and the various metal containers containing the HC. Heritage was awarded a five-year contract by the U.S. Department of Defense to dispose of the HC-smoke materials.

Local Site Review Committee

The Hazardous Waste Site Review Committee was formed in accordance with Nebraska requirements, and appropriate resources were provided to the committee to complete its work. The table below shows the committee members, technical advisors from Heritage, resource staff from the Nebraska Department of Environmental Quality, and facilitation staff from the University of Nebraska Public Policy Center.

Hazardous Waste Site Review Committee Final Report

Local Site Review Committee Members

Local Members Appointed by Hall County, Alda**, and Grand Island****

- Greg Baxter*
T&E Cattle Company
Grand Island, NE
- Karen Bredthauer*
Business Owner
Hall County Planning Commission
Grand Island, NE
- Brad Kloss**
Village of Alda
Alda, NE
- Dan Purdy*
Hall County Supervisor
Grand Island, NE
- Jon Rosenlund***
Emergency Management Director
Hall County
Grand Island, NE
- Casey Sherlock*
Hall County Surveyor and Public
Works Director
Alda, NE

Regional Members Appointed by the Department of Environmental Quality

- John Turnbull – Chair
Environmental representative
York, NE
- Chad Nability – Co-Chair
Community Planner Representative
City of Grand Island
- Teresa Anderson
Medical Community Representative
Director – Central District Health
Grand Island, NE
- Chris Exstrom
Academic Representative
University of Nebraska-Kearney
Department of Chemistry
Kearney, NE
- Alex Harness
Industry Representative
Case New Holland
Grand Island, NE
- Timothy Smith
Public Interest Group Representative
Crane Trust
Wood River, NE

Heritage Disposal & Storage Technical Advisor and Resource Experts

- Mark Vess
President
Heritage Disposal & Storage
- Dwight Miller
Senior Consultant
Parametrix

Nebraska Department of Environmental Quality Director and Resource Staff

- Jim Macy
Director
- Joe Francis
Associate Program Director
- Morgan Leibrandt Permits
Unit Supervisor Waste
Management Section
- David Graiver PE
Air Quality Division
- Dan LeMaistre PE
Land Management Division
- David Haldeman
Administrator-Land Management
Division

University of Nebraska Public Policy Center Facilitation

- Mark DeKraai - Facilitator
Senior Research Director
 - Quinn Lewandowski – Secretary
Project Coordinator
-

Hazardous Waste Site Review Committee Final Report

The committee met eight times. Meeting agendas, minutes and presentations/background materials are included in this report. A summary of meeting topics follows:

- April 25, 2016
 - Orientation to the Site Review Process and Heritage Proposal
 - Election of Chairs and Agreement on Process
- May 24, 2016
 - Development of Ground Rules and Schedule for Meetings
 - Presentation and Question/Answer on Facility Functions and Site
 - Presentation and Question/Answer on Technology to be Used
 - Presentation and Question/Answer on Environmental Quality
- June 21, 2016
 - Site Visit to the Heritage Disposal and Storage Location
- June 23, 2016
 - Presentation and Question/Answer on Emergency Response
 - Presentation and Question/Answer on Transportation
- July 19, 2016
 - Presentation and Question/Answer on Economic Considerations
 - Presentation and Question/Answer on Enforcement
 - Presentation and Question/Answer on Disposal Technology Options
- August 23, 2016
 - Determine Report Format
 - Develop Issues/Concerns/ Findings/Comments for 8 Required Areas and possibly Additional Areas Selected by the Committee
- September 20, 2016
 - Develop Issues/Concerns/Findings/Comments for two areas not addressed at the August meeting: Plans for Emergencies and Enforcement Provisions
 - Review and Modify Draft Report
- October 12, 2016
 - Review and Vote on Final Report

To ensure an open and transparent process, the committee followed all requirements of the Nebraska Open Meetings Act; the Nebraska Department of Environmental Quality (NDEQ) published notice of all meetings, agendas were available prior to meetings, a copy of the open meeting laws were available at each meeting, and every agenda included an item for public comment. In addition, copies of committee notebooks, which included all meeting materials, were available at the NDEQ Lincoln and Grand Island offices, at the Grand Island Public Library, and on the NDEQ website. The committee presented the report to NDEQ, Heritage Disposal and Storage LLC, and the citizens of Nebraska on October 18, 2016.

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Committee Findings and Comments

Throughout the review process, the committee had the opportunity to learn about the Heritage Disposal LLC (Heritage) proposal, ask questions about the proposal and raise issues and concerns. The answers to questions and responses to concerns raised during the process are included in the meeting minutes contained in this report. There were no unanswered questions. There were no unresolved issues. Considering all eight factors and the additional factor of including beneficial practices in the local permitting process, the committee finds adequate safeguards to meet regulatory requirements to ensure worker and public safety, maintenance of environmental quality, and protection against financial risk by the community.

Site Characteristics



Storage Bunker at Heritage

The committee determines the facility would be located on the current Heritage property on the site of the former Cornhusker Army Ammunition Plant, which was designed during World War II for storage of high explosive munitions. The entire site, including land owned by Heritage, has been permanently deed restricted against residential impingement. Heritage is a high-security (24-hour armed guard) 900-acre facility with controlled access. Heritage has an ATF explosives manufactures license, which is required by any facility

that chemically alters or changes any explosive material in the de-militarizing, neutralizing, or destruction process. Heritage includes 60 renovated and licensed bunkers with storage capacity for 16 million pounds of explosive materials and has the capability to renovate and license 57 more bunkers to increase storage capacity to 24 million pounds. The bunkers are fully protected from lightning and static. The secure and safe storage capacity at the site is a significant reason the U.S. Army selected Heritage for the small business contract.



Site Map: Heritage Disposal & Storage LLC in Red

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With regard to site characteristics, the committee identified the following significant issues and concerns:

Issue or Concern	Summary of Response or Answer	Committee Comment
How will surface and ground water be protected?	All active operations will occur on fully paved surfaces. There will be no onsite landfilling of residuals. The process water and surface water ponds will be fully lined. Active spill prevention and cleanup protocols will be followed under NDEQ Title 126 – Rules and Regulations Pertaining to Management of Waste and under the National Pollution Discharge Elimination System Permit (NPDES) – <i>Minutes 5/24, p.56</i>	The Heritage plan and design proposal appears to ensure water will be protected and NDEQ regulations appear adequate to ensure the protection of surface and ground water.
How much water will be used?	It will be approximately 10,000-20,000 gallons per day. To provide perspective, this is about the amount of water used by a 50 gallon household well pumping seven hours per day. <i>Minutes 5/24, p.57</i>	It appears Heritage water usage will not be significant compared to other current surrounding ground water uses.
What method will be used to restrict wildlife access to evaporation ponds?	The water would be fully fenced and there will be bird prevention on top of evaporation ponds. <i>Minutes 5/24, p.58</i>	It appears that Heritage’s plans provide adequate safeguards to protect wildlife and meet regulatory requirements.

With regard to site characteristics, the committee finds 1) the site is uniquely suited to the task because of the availability of storage bunkers and other facilities, 2) has long history of successfully engaging in similar types of storage and treatment operations, 3) has appropriate security features, and 4) there will be no impingement on the property by residential development.

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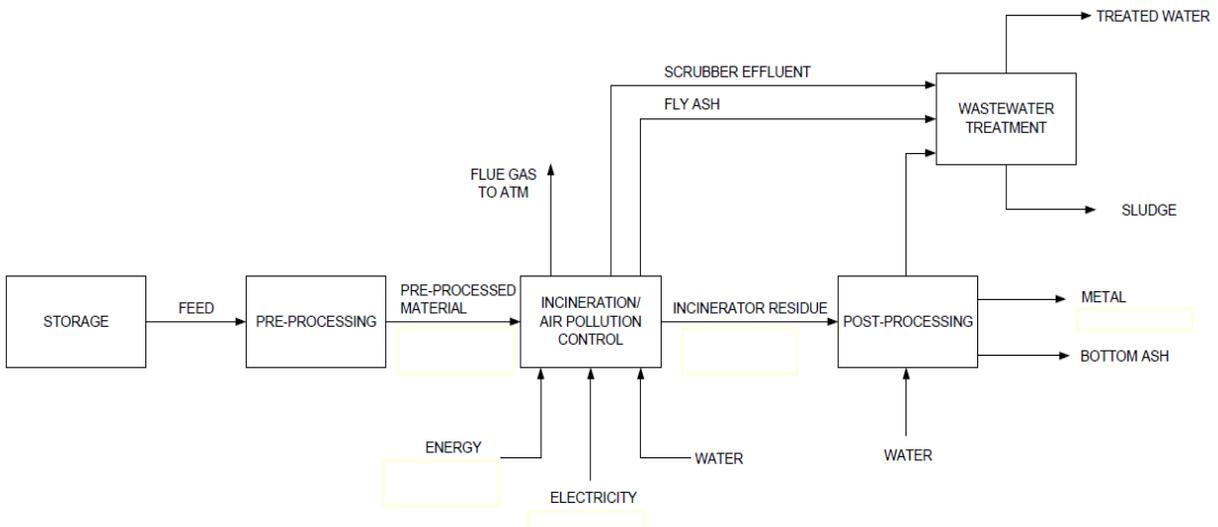
Facility Functions

The committee determines the Heritage facility would thermally treat HC-smoke (Hexachloroethane) materials. HC-smoke is used in smoke-generating devices in military training and in combat. The primary facility functions consist of 1) receiving the HC-smoke materials from Army-approved carriers at a receiving facility, 2) preparing materials for storage, 3) moving materials to storage bunkers, 4) moving materials from storage to the thermal treatment facility, 5) thermally treating the materials while controlling for air pollution, and 6)

How the Rotary Kiln will Appear when Assembled



processing/transporting treated materials for recycling or disposal. Heritage reports it has state of the art practices and procedures, a sterling safety and inspection record, and a proven regulatory and technical compliance record. Heritage plans to increase the capability of the facility to handle 15,000 tons/year, which is approximately 50% greater than the Army contract. The equipment will be able to handle law enforcement and civilian materials. Heritage plans for facility and site design under the current Army contract to be completed by Spring 2017 and production to begin by Summer or Fall 2018. Facility functions are shown in the figure below. More information about facility functioning can be found in the May 24, 2016 meeting minutes.



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With regard to facility functions, the committee identified the following significant issues and concerns:

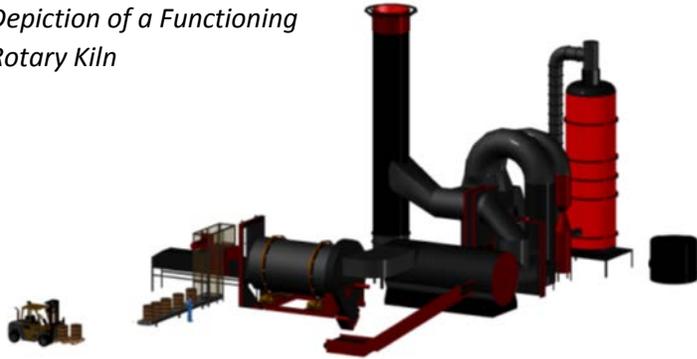
Issue or Concern	Summary of Response or Answer	Committee Comment
How adequate and safe are management processes and the facility?	Explosive safety has been incorporated into the site. Heritage has state of the art practices and procedures, and a sterling safety and inspection record, and a proven regulatory and technical compliance record. <i>Minutes 4/25, p. 31</i> Heritage is a high-security (24-hour armed guard) 900-acre facility with controlled access. Storage bunkers are fully protected from lightning and static. <i>Minutes 5/24, p. 54</i> The materials received are user friendly, but may need to be repacked for storage. The conveyor belt used in processing will be color coded each day to help communicate to the workers what specific material they are processing. <i>Minutes 5/24, p. 57</i>	The management processes appear to be appropriate for a safe and effective operation and meet regulatory requirements. Heritage has a proven track record in storing and treating hazardous materials and in maintaining a secure and safe facility.
Will there be fire suppression systems & sub-floor secondary containment design in the new facility and receiving building?	There will be fire suppression systems in all of the new plant. Heritage will need to look at the logistics of retrofitting a deluge system in the shipping and receiving facility because there is no water by the receiving building. With the construction, they will look at ways to bring water to that area to allow the installation of a fire suppression system in the receiving area. <i>Minutes 6/23, p. 96-97</i>	The measures for fire suppression appear to be adequate and meet regulatory requirements. Heritage's plans appear to be in compliance with local and state safety regulations.
What are plans for future expansion?	This equipment will also be able to handle law enforcement and civilian materials. <i>Minutes 5/24, p. 54</i> The current award represents less than 2% of prospective Army conventional demilitarization needs, hence expansion is possible. The facility will have capacity for additional federal, state, and private material thermal treatment. <i>Minutes 7/19, p. 124</i>	There appear to be feasible plans for future sustainability and expansion. There appear to be appropriate regulatory review processes to assess operational expansion.

With regard to facility functions, the committee finds the management processes involved appear appropriate to the operation and suitable for safe and effective thermal treatment of HC. Plans for future expansion appear feasible and appropriate.

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Technology

Depiction of a Functioning Rotary Kiln



The committee determines Heritage proposes to thermally process the HC-smoke by building a rotary kiln with five tons/hour capacity that would be operated 24 hours/day, 7 days/week, except for period of cleaning and maintenance. The rotary kiln is indirectly fired (heating the outside of the kiln) and includes a ram feeder with an air lock (prevents loss of heat and emissions out of the

kiln) and air locked bottom ash removal portion located at the end of the kiln which will help collect the leftover metals and ash. The Air Pollution Control includes a direct-fired after-burner, scrubber, mist eliminator, absorption tower, and 120' tall stack. Approximate composition of HC smoke is 62.5% zinc chloride, 10.8% chlorinated vapors, 10.7% iron oxide, 9.6% zinc oxide, 5.4% aluminum oxide, and 1.0% lead oxide. The process is engineered to reduce the air discharge of the zinc-chloride by-product resulting from the HC-smoke destruction. Approximately 40% of materials are anticipated to be recycled including packing materials, metal containers, zinc chloride, and bottom/fly ash. The facility will reuse water and waste water will be pond evaporated. Off-site land fill disposal will be used for solid and hazardous waste that cannot be recycled including sludge from the evaporation ponds. Further description of a rotary kiln can be found on the following web site:

<http://getavulcan.com/equipment/incineration-systems/vulcan-hazardous-waste-incinerator/>

More information about technology can be found in the May 24, 2016 meeting minutes.

With regard to technology, the committee identified the following significant issues and concerns:

Issue or Concern	Summary of Response or Answer	Committee Comment
Is this the best technology to ensure the least harmful air emissions (Suggestion in letters to editors about better technologies)?	The US Army has determined thermal treatment is the most appropriate technology for this purpose, meets current regulatory standards, and is economically feasible. Open burn, referenced in the letter, is no longer allowed. <i>Minutes 7/19, p. 133</i> Heritage will have to progressively review options as equipment ages or has to be replaced to ensure conformity with current best available control technology (BACT) standards. <i>Minutes 170</i>	The technology appears to be appropriate for safe, efficient, and effective operation. The US Army has conducted a thorough review of alternative technologies in selecting thermal treatment. The technology appears to meet all regulatory requirements.

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Issue or Concern	Summary of Response or Answer	Committee Comment
The committee would like a better understanding about what occurs in the rotary kiln.	The thermal treatment will include a 12-foot diameter x 26 foot long rotary kiln with a five tons/hour capacity. The rotary kiln is indirectly fired (heating the outside of the kiln) and includes a ram feeder with an air lock (prevents loss of heat and emissions out of the kiln). The after-burner is sized to the rotary kiln, and is direct fired. The thermal treatment includes an air locked bottom ash removal portion to help collect the leftover metals. <i>Minute 5/24, p. 55</i> A diagram/picture was requested by the committee. <i>Minutes 8/23, p. 171</i>	The committee has sufficient information about the rotary kiln, and the public has access to this information. It appears the process will be designed to minimize harmful emissions and hazardous waste and to maximize recyclable material.
What chemical transformations occur with the materials?	The testing entity will determine the ideal temperature to treat these materials, and maximize the efficiency of APC controls at different steps throughout the process. <i>Minutes 5/24, p. 58</i> The committee requested additional information on chemical transformation, which was included in the technology description. <i>Minutes 8/23, p. 169</i>	Based on the information that the committee has at this point the committee believes it has sufficient understanding of the likely chemical transformations to occur, and the public has access to this information.
The plan is not complete since some processes won't be determined until engineering studies are conducted	The engineering breakdown has been submitted to the Army, and it is a proven process that works. The planned technology is about 99.9% complete. NDEQ requires a 100% complete picture. The engineering studies will complete the plan. <i>Minutes 5/24 p. 58</i> The engineering analysis will result in the least air emissions and best by-products recovery. <i>Minutes 8/23, p. 169</i>	The committee is satisfied NDEQ will determine if the engineering studies are adequate and will monitor compliance with current and future regulations.
What amount of materials will be recycled?	Approximately 40% of the materials processed under this contract will contain recyclable materials. <i>Minutes 5/24, p. 55</i>	It appears the operation is being designed to maximize the amount of material that can be recycled.

With regard to technology, the committee finds the proposed approach appears to be an appropriate technology for the treatment of HC smoke. The technology appears to be reliable and cost effective. Adequate quality controls appear to be planned. The storage, treatment, and disposal of any hazardous waste appear to be well-designed from entry to exit from the facility.

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Environmental Quality

The committee determines the Heritage proposal aims to protect surface and groundwater through conducting operations on paved services and under cover, treating the water to eliminate dissolved solvents, processing water in fully lined evaporation ponds, and having protocols for active spill prevention and cleanup. Heritage will use between 10,000-20,000 gallons of water per day. Heritage aims to reduce harmful air emissions through use of the best available control technology, use of air modeling and optimal process design, and adherence to applicable air quality regulations. Heritage anticipates 40% of materials will be recycled with the rest being landfilled off site. More information about environmental quality can be found in the May 24, 2016 meeting minutes.

With regard to environmental quality, the committee identified the following significant issues and concerns:

Issue or Concern	Summary of Response or Answer	Committee Comment
What kind of health issues were shown for individuals with prolonged exposure to HC smoke?	Health issues have been shown in a small percentage of those that have experienced large prolonged exposure to HC smoke (in military training situations) and most of the health concerns were respiratory issues. <i>Minutes 5/24, p. 59</i>	The health risks from the thermal treatment of HC smoke or accidental release of HC appear to be relatively minimal.
Will Tier II reporting be required?	Heritage has informed NDEQ it is not subject to Tier II reporting requirements associated with storage of hazardous materials. <i>Minutes 6/23, p. 101</i>	NDEQ has accepted the Heritage information related to Tier II reporting requirements.
For materials processed in future contracts, (materials other than HC-smoke), how do we ensure these materials are processed in a safe manner?	The committee's primary task is to determine if the location is viable for a hazardous waste facility in the area. <i>Minutes 4/25, p. 33</i> This process is about approving this site to manage hazardous waste. Anything new must pass all standards before it could be certified. The committee is approving a hazardous waste facility, and it could encompass more than HC. If there are any changes to the permits the public will be able to comment. <i>Minutes 6/23, p. 99</i>	It appears adequate regulatory safeguards are in place to ensure future materials are processed in a safe manner. Plans for expansion will initiate appropriate local, state, and federal review processes.
Flood plain is addressed but what about high ground water?	The only significant issue regarding high groundwater is for those facilities that may require excavation be below the upper water table, such as the evaporation lagoon or surface water ponds. These facilities will be designed to compensate for high groundwater. <i>Minutes 9/20, p. 179; Heritage response in 9/20 presentations and handouts</i>	There appear to be adequate regulatory safeguards to protect against high ground water. Construction of the facility must meet all regulatory requirements.

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Issue or Concern	Summary of Response or Answer	Committee Comment
How will NDEQ have real time access to process information?	Material for thermal treatment will be screened for compatibility, air monitoring will be carried out to ensure it meets emission limits (NDEQ would have real-time access to process and emissions data), and analytical testing will be conducted on the bottom ash, fly ash, process water, surface water, and exhaust gas. <i>Minutes 4/25, p. 32</i> Clean Harbors, another hazardous waste incinerator near Kimball, NE, setup a real-time process and emissions monitoring system that allows NDEQ access to real-time and historical data at any time. Heritage has agreed to provide the same real-time process and emissions monitoring. <i>Minutes 8/23, pp. 166-167</i>	There appear to be adequate monitoring and reporting requirements for environmental quality. The plan is for NDEQ to have real time air-emissions data which will enhance monitoring and enforcement.

With regard to environmental quality, the committee finds the proposed operation appears appropriate to protect surface and ground water and air quality, and the proposed operation addresses other environmental concerns.

Enforcement Provisions

The committee determines there are numerous mechanisms for monitoring and enforcement designed to maximize compliance with contract requirements and applicable regulations. Under the Department of Defense contract are requirements for monitoring, reporting, corrective actions and penalties for significant violations related to security, safety, and environmental protection. The Heritage facility must meet other federal requirements including regulations of the U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives. The Nebraska Department of Environmental Quality and the Environmental Protection Agency work in partnership to monitor and enforce environmental regulations related to air quality, water quality and resource conservation and recovery. The Nebraska State Fire Marshal will be involved in safety/fire regulation of the facility, and the Nebraska State Patrol regulates explosives storage. Hall County is responsible for permitting in the areas of land use, physical facility, fire, electrical, and flood plain. More information about enforcement provisions can be found in the July 19, 2016 meeting minutes.

With regard to enforcement provisions, the committee identified the following significant issues and concerns:

Issue or Concern	Summary of Response or Answer	Committee Comment
What is Heritage's compliance track record?	Since 2003, Heritage has processed 2.86 million pounds of materials and has a sterling inspection record. Heritage has had 32 inspections from a variety of agencies and has not had any type of write-up. <i>Minute 5/24, p. 58</i>	Heritage has an exemplary compliance record for previous operations.

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Issue or Concern	Summary of Response or Answer	Committee Comment
How adequate is NDEQ monitoring? Will NDEQ inspect only once/year?	<p>There are many different regulatory agencies (EPA, NDEQ) that go out at least once a year. Additionally, NDEQ will conduct annual inspections under its air, water, and RCRA programs; NDEQ will also conduct inspections based on complaints received. There is also self-reporting and other requirements for monitoring and those need to be done in a timely manner. This can trigger an inspection or some sort of an action to remedy the problem. <i>Minutes 7/19, p. 131-132</i></p> <p>During the startup phase of the project, the inspections will be more frequent. Periodically through the life of the five year RCRA permit there will be testing to make sure the results meet all standards. <i>Minutes 8/23, p. 166</i></p>	<p>It appears NDEQ monitoring is adequate for the proposed operation. NDEQ provides regular monitoring with real-time emissions data and a reasonable process for inspections and reviews.</p>
Is there adequate coordination of state and local monitoring and compliance checks (County, NSP, NDEQ, Fire Marshal, etc.)?	<p>If there's a compliance-related issue or accident or injury, the US Army requires a full accident report and notification of the Army within 8 hours. The Fire Marshal's office would also get notified, the NDEQ would get notified, as would the local fire department and emergency managers, hospitals, etc. Initially there are encompassing inspections, but as compliance is demonstrated, inspections become less encompassing. <i>Minutes 7/19, pp. 131-132</i></p>	<p>Monitoring and compliance appear to be sufficiently coordinated. A variety of agencies oversee the operation including federal agencies (e.g., DoD, ATF), state (NDEQ) and federal (EPA) agencies monitoring environmental impact, and other state (e.g., Fire Marshal, Nebraska State Patrol) and local (e.g., Hall County permitting process) agencies. It appears that state and local monitoring agencies effectively coordinate work in a variety of similar contexts.</p>

Hazardous Waste Site Review Committee Final Report

Issue or Concern	Summary of Response or Answer	Committee Comment
How will the county and state know of federal contract/regulation (e.g., US Army, ATF) compliance?	Heritage has agreed to maintain an operating record of permits (local, state, federal) including US Army and ATF compliance that county and state officials can review onsite. Many of these permits are posted online by the respective issuing agency and will be publically available. <i>Minutes 9/20, p.179; Heritage response in 9/20 presentations and handouts</i>	The committee recognizes that there are many federal agencies that are going to examine and review Heritage’s compliance. Heritage has given information of how that information can be accessed by local and state entities. This committee believes that is adequate.
How often are the local and state permits reviewed?	There is a mandatory review at the state level under air and RCRA at least every five years, unless there are significant operations changes, which prompt more frequent reviews. There is no minimum review requirement for local permitting. The committee recommends the local permitting review follow the same schedule as the state process. <i>Minutes 9/20, p. 183-184</i>	There appears to be an adequate regulatory review process at the state level. The local review would appear appropriate if it follows the same schedule as the state process.

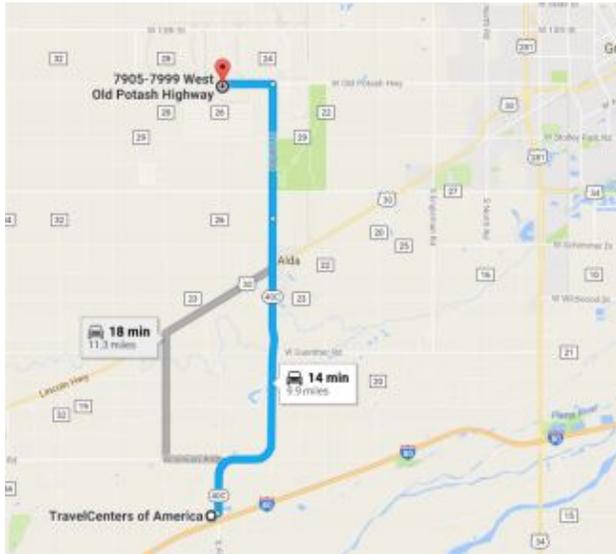
With regard to enforcement provisions, the committee finds the applicable regulations and monitoring plans for Heritage and the regulatory agencies will ensure compliance with current standards.

Transportation Considerations

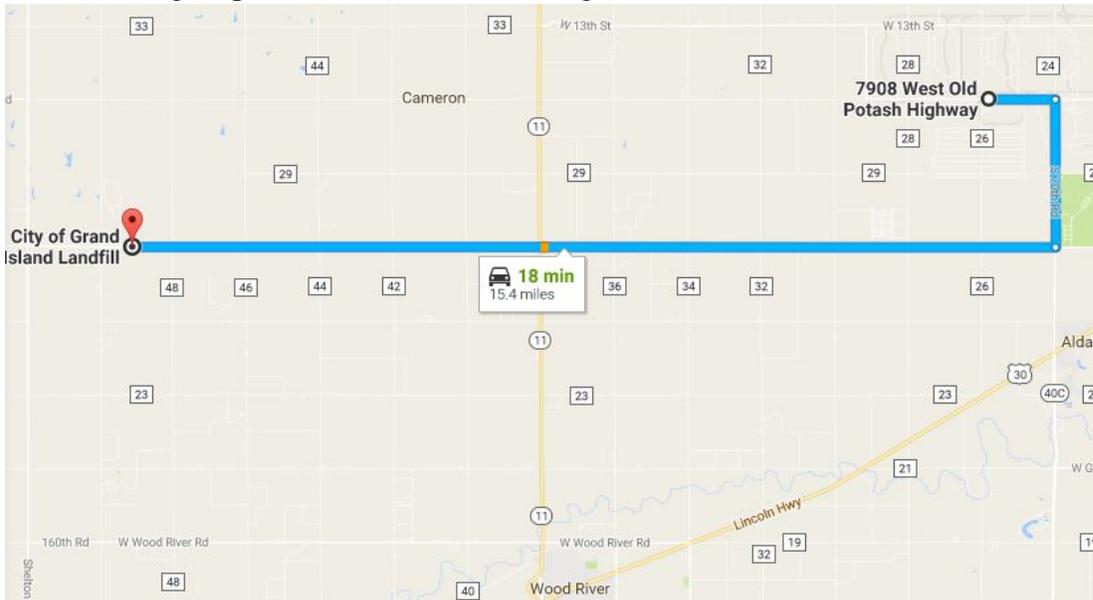
The committee determines under the Heritage proposal, HC-smoke materials would be delivered primarily by semi-truck/trailer delivered by Army contract carriers. These carriers have spill plans, retain third-party response services and must adhere to U.S. Department of Transportation transport regulations. The materials will be coming from 29 different Army depots from different areas of the U.S. The most common routes would be along Interstate 80 on to Alda Road and Old Potash Highway. Peak deliveries would average four trucks per day initially and one truck per day (4-5/week) during routine operation. Transportation of processed materials including hazardous waste to recycling sites and landfills would be arranged by Heritage. Transportation routes are shown in the figures below. More information about transportation considerations can be found in the June 23, 2016 meeting minutes. The following map shows the route from I80 to Heritage for delivery of HC smoke materials, which can also be used for transport away from Heritage to recyclers, although transport of materials from Heritage will be determined by the characterization of those materials.

Hazardous Waste Site Review Committee Final Report

The following map shows routes from I-80 to Heritage



The following map shows routes from Heritage to the landfill.



With regard to transportation considerations, the committee identified the following significant issues and concerns:

Issue or Concern	Summary of Response or Answer	Committee Comment
What are the routes for transporting materials to Heritage?	During the initial operation, there will be four trucks per day; during routine operations, there will be about one truck/day. Trucks will arrive from I-80 via Alda Road and Old Potash Highway and to the facility. <i>Minutes 6/23. P. 100</i>	Provisions for transportation of materials to Heritage appear adequate. Routes from Heritage to the landfill can be specified as part of the local permitting process.

Hazardous Waste Site Review Committee Final Report

Issue or Concern	Summary of Response or Answer	Committee Comment
What are the safeguards for the transportation into and out of Heritage?	The Army contract carriers have spill plans and retain third-party spill response services; they must follow transport regulations under USDOT. <i>Minutes 6/23, p.101</i> The conditional use permit can specify the routes for transporting materials away from Heritage. <i>Minutes 9/20, p. 183</i>	Safeguards for transportation appear adequate. The Army carriers are required to follow federal regulations, and the local permitting process will regulate the outflow of both hazardous and non-hazardous materials to landfills and recycling centers.
What are locations and routes for transporting hazardous waste to landfills?	That is yet to be determined. <i>Minutes 5/24, p.59</i> Trucks bringing in or taking away shipments will use the most efficient, least populated, minimal risk, etc. route. <i>Minutes 8/23, p.169</i>	Provisions for transportation of materials away from Heritage appear adequate. Routes from Heritage to the landfill and to recyclers should be specified as part of the local permitting process.
What is the status of rail shipments?	The Army is not anticipating any rail delivery with this particular contract. Heritage’s rail could handle a very limited rail delivery. Heritage is exploring some avenues to help fund the possible future modernization of the rail such as a government sponsored program. <i>Minutes 6/23, p. 97</i>	Plans for future rail enhancements appear adequate. It appears rail transport of HC smoke materials is not planned at this time.

With regard to transportation considerations, the committee finds the routes and methods used for transporting hazardous materials to and from the facility appear to be adequate. Waste containment during transportation and response plans in case of spills appear appropriate. The planned amount of additional transport from this operation appears not to be detrimental to the community.

Plans for Emergencies

The committee determines the Heritage proposal includes provisions for emergencies including plans required by the Department of Defense contract, an ammunition and explosives safety program plan, site security plans, corporate safety and health plan, protocols for emergency response, fire prevention measures, first aid training, plans for joint training with fire departments, active spill prevention and cleanup protocols, and protocols/equipment designed to respond to operating problems. More information about plans for emergencies can be found in the June 23, 2016 meeting minutes.

With regard to planning for emergencies, the committee identified the following significant issues and concerns:

Hazardous Waste Site Review Committee Final Report

Issue or Concern	Summary of Response or Answer	Committee Comment
How will Heritage work with local emergency management on planning, training and exercises?	Local emergency responders will be briefed on routes and material types. Heritage plans to work with local emergency management to ensure an appropriate response in case of an incident. There needs to be coordination between local responders and the facility. It is proposed to have a sit-down meeting between the facility and local emergency management. <i>Minutes 6/23, p. 101</i>	Plans for working with local emergency management appear adequate in that Heritage has stated its intent to work with local emergency management and first responders. Heritage has structures in place to address emergencies. The committee is impressed with the track record of Heritage in preventing emergencies from occurring.
What is the extent of Incident Command Training (ICS) and hazmat incident command training?	The employees at Heritage have an extensive training list. The employees have 24 or 40 hours of hazmat training; all the supervisors have eight hours of supervisor training; all the employees have annual 24 hours of refresher trainings; they have three day training assessments; all are trained on forklifts; all are first-aid and blood borne pathogen certified; all receive fire suppression and extinguisher training, emergency procedures training, and many other trainings. <i>Minutes 6/23, p. 97-98</i> It is proposed to have a sit-down meeting between the facility and local emergency management. <i>Minutes 6/23, p. 101</i>	Plans for working with local emergency management on training appear adequate. Heritage has stated its intent to provide extensive staff training and to work with local emergency management on planning, training and exercises.
Is there technical expertise to merge with fire departments and other responders in an incident?	It is proposed to have a sit-down meeting between the facility and local emergency management to discuss this issue. <i>Minutes 6/23, p. 101</i>	Plans for working with local emergency responders appear adequate. Heritage has stated its plan to work with local fire fighters and other first responders.
Will Heritage participate as a member of the Local Emergency Planning Committee (LEPC)?	It is proposed to have a sit-down meeting between the facility and local emergency management to discuss this issue. <i>Minutes 6/23, p. 101</i>	Plans for working with local emergency management on LEPC involvement appear adequate in that Heritage has indicated its intent to participate on the LEPC.

Hazardous Waste Site Review Committee Final Report

Issue or Concern	Summary of Response or Answer	Committee Comment
How will emergency response plans be shared with local officials?	It is proposed to have a sit-down meeting between the facility and local emergency management to discuss this issue. <i>Minutes 6/23, p. 101</i>	Plans for working with local emergency management on sharing emergency response plans appear adequate given the plan for collaboration between local emergency management and Heritage.

With regard to planning for emergencies, the committee finds the plan for Heritage to work with local emergency management will likely result in appropriate site security, qualifications and training of personnel, preparation for emergencies and coordinated action in the event of operating problems.

Economic Considerations

The committee determines under the Army small business contract, Heritage intends to create 50 full time and 12 part time positions for this facility; 12 of the jobs would be managerial positions. Salaries would range from \$50,000 to \$100,000, and annual payroll would be over \$3.5 million. It is anticipated 90% of hires will be from the local community and other places in Nebraska. It is estimated that the economic impact to the local community is three times the payroll, or over \$10 million annually. Local government would benefit through additional property taxes, and the state would benefit through increased sales and income taxes. The facility will use more than \$1 million of natural gas and electricity per year. There are prospects for continuation or expansion of operations beyond the five-year Army small business contract. The Resource Conservation and Recovery Act (RCRA) requires funding for closure and decommissioning of treatment, disposal and storage facilities, ensuring the community is not impacted by contaminated infrastructure. More information about economic considerations can be found in the July 19, 2016 meeting minutes.

Hazardous Waste Site Review Committee Final Report

With regard to economic considerations, the committee identified the following significant issues and concerns:

Issue or Concern	Summary of Response or Answer	Committee Comment
What will be the economic benefit?	Approximately 60-70 professional jobs will be added to Heritage with 95% recruitment in Nebraska and the local area. There will be significant benefit to local utility companies; energy usage of the plant will be in excess of one million dollars each year. The two year development will require support from local hotels, restaurants, retail locations, etc. <i>Minutes 4/25, pp. 32-33</i>	It appears that the proposed operation will likely result in short-term and long-term economic benefit to the Grand Island metropolitan area. The Heritage proposal appears likely to result in the creation of about 60 new high-paying jobs to the area.
What is the impact on housing, schools, etc.?	For 50-70 jobs within a community the size of the Grand Island metropolitan area, at those upper ends there is sufficient capacity. <i>Minutes 7/19, p. 123-125</i>	The impact on housing and schools appears reasonable. The additional jobs and impact on housing and schools appear to be within the growth projections for Hall County.
What are bonding and insurance requirements and financial assurance at closures?	There are Resource Conservation and Recovery Act (RCRA) requirements for funds for closure and decommissioning of Treatment, Disposal and Storage (TDS) Facilities. <i>Minutes 7/19, p. 124</i> RCRA requires that all hazardous waste facilities demonstrate financial responsibility for accidental occurrences that may cause harm to a third party. A facility can demonstrate that liability funds are available through several financial mechanisms: financial test, letter of credit, surety bond (insurance) or trust fund. <i>Minutes 8/23, p. 167</i> The U.S. government mandates the minimum insurance coverages. NDEQ will review all legal documents to ensure it meets regulatory compliance. If the facility would close prematurely, there would be a process to ensure there is money available for cleanup. <i>Minutes 8/23, p. 170</i> See also NDEQ white paper on bonding and financial requirements. <i>8/23 meeting materials</i>	The provisions for bonding and financial assurance at closure appear adequate. RCRA has requirements for financial responsibility, including insurance coverage and funding for closure of the facility. NDEQ will monitor for compliance with these regulatory standards. It would be desirable for the local permitting process to also monitor for financial compliance, to protect the community from financial risk.

Hazardous Waste Site Review Committee Final Report

Issue or Concern	Summary of Response or Answer	Committee Comment
What is the financial capacity of Heritage to fulfill the contract?	The Army Application included a financial portion that included cost, investments, etc. Heritages financial capacity was a part of this selection process in getting awarded the contract. <i>Minutes 8/23, p. 170</i>	The capacity of Heritage to successfully fulfill the contract appears adequate. NDEQ will monitor for adherence to RCRA financial requirements. The US Army will monitor for meeting its financial regulatory and contractual requirements.
What about the continuation of operations in event of change in leadership?	The operation includes investors, six engineering firms and managers/compliance staff at Heritage, ensuring continuation of operations if something happens. <i>Minutes 7/19, p. 133</i>	The plan for continuation of operations appears adequate based on the financial safeguards in place and the multiple staff involved.

With regard to economic considerations, the committee finds Heritage has operated successfully in the community for many years and the jobs brought to the community will enhance the economy. Heritage appears to have a feasible plan to sustain and expand its operations in hazardous waste disposal. There appear to be adequate financial safeguards in place to reduce the risk of financial burden on the community in the event of closure.

Other Factors

The committee has selected the following as additional factors to be considered as part of the hazardous waste management facility review: Beneficial practices not tied to a regulatory monitoring or enforcement program.

The committee determines the Heritage proposal would provide beneficial practices in the storage and disposal of hazardous waste, not required as part of any regulatory program. Examples of these practices include willingness of Heritage to 1) implement internal policies and procedures to ensure public and worker safety beyond regulatory requirements, 2) identify and apply measures to ensure security of the facility, 3) work with local emergency management and the Local Emergency Planning Committee to ensure public safety, 4) work with local fire fighters on planning, training and exercises, and 5) make available information about compliance with Army contract and other federal regulatory requirements. The committee finds that it would be desirable to include these non-required beneficial practices in conditional use permits. The local permitting process should also include routes from Heritage to the landfill and to recyclers and monitoring compliance with financial regulatory requirements.

Hazardous Waste Site Review Committee Meeting Agenda & Minutes

April 25th, 2016

Hazardous Waste Site Review Committee Meeting

April 25, 2016, 6:30 PM

Alda Community Center

6410 w highway 30, Alda, NE

AGENDA

- I. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**
- II. Roll Call**
- III. Welcome and Introductions**
 - A. Welcome
 - B. Overview of Meeting
 - C. Purpose of the Meeting
 - D. Role of the Committee
 - E. Introduction of Members
- IV. Description of Process**
 - A. Introduction and Role of Facilitator
 - B. Review of Notebooks
 - C. Review of Previous Process
 - D. Question and Answer Related to Committee Work
- V. Description of the Heritage Proposal**
 - A. Description of Site
 - B. Heritage Proposal
 - C. Question and Answer Related to Proposal
- VI. Action Items**
 1. Develop and Agree on Process
 2. Elect a Chair
- VII. Next Steps and Adjourn**
 1. Member Comments
 2. Meeting Feedback
 3. Summary of Next Steps
 4. Public Comments
 5. Adjourn

Organizational Meeting Minutes
April 25th, 2016, 06:30 PM CST
6410 W Highway 30, Alda, NE 68810

Opening Comments

- I. Open Meeting Law Information – verification of public notice, availability of copy of law in the meeting location – NEB. REV. STAT. §§ 84-1407 THROUGH 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**

- II. Roll Call of Appointed Hazardous Waste Site Review Committee**

First Name	Last Name	Attendance
Teresa	Anderson	X
Greg	Baxter	X
Karen	Bredthauer	X
Chris	Exstrom	X
Alex	Harness	X
Brad	Kloss	X
Chad	Nabity	X
Dan	Purdy	X
Jon	Rosenlund	X
Casey	Sherlock	X
Timothy	Smith	X
John	Turnbull	X

Others in attendance: Jim Macy, Joe Francis, Mark DeKraai, Mark Vess, Dwight Miller, Tricia Scott, Brian McManus, Morgan Leibrandt, Tom O'Connor, Kara Valentine, Shelley Schneider, and Quinn Lewandowski.

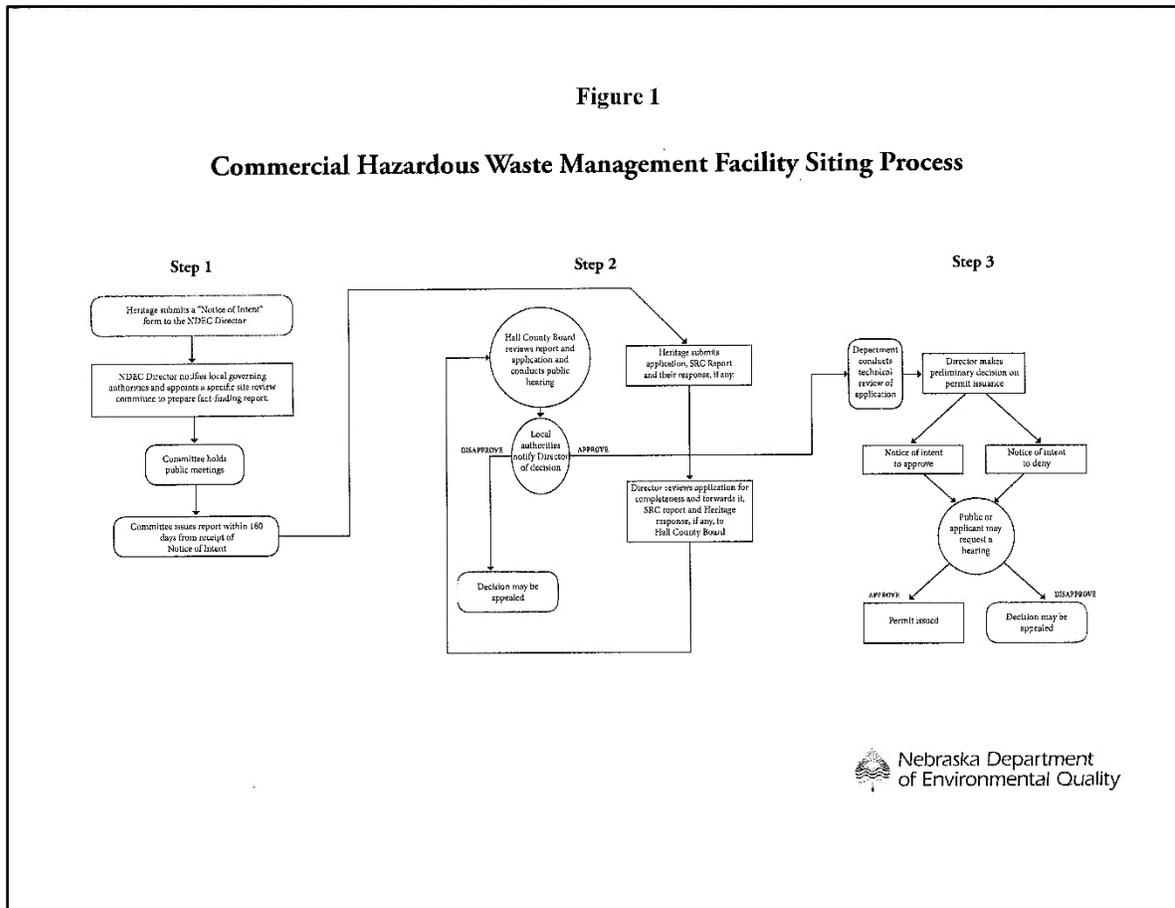
III. Welcome and Introductions

Joe Francis called the meeting to order at 06:32 PM Central Standard Time. All twelve appointed committee members were present.

The first meeting of the Site Review Committee for the proposed hazardous waste site facility proposed by Heritage Disposal & Storage LLC convened at 6:30 PM CST on Monday, April 25th, 2016 at the Alda Community Center in Alda, NE. Joe Francis of the Nebraska Department of Environmental Quality (NDEQ) welcomed the committee, the public, and Heritage and NDEQ representatives. All appointed committee members were present. Jim Macy, Director of the Nebraska Department of Environmental Quality and the committee's temporary chairperson, then provided an overview of the evening's meeting and its purpose, introduced the audience to the site review process, explained the role of the committee, and allowed each committee member to introduce themselves.

IV. Introduction to the Process and Role of the Committee

Morgan Leibrandt, NDEQ, led an introduction to the facility siting process and a summary of its legislative basis, Legislative Bill 114. Figure 1 illustrates the three step process that is required for the Commercial Hazardous Waste Management Facility Siting Process.



LB 114 was developed to provide early public involvement in the siting of commercial hazardous waste treatment, storage, and disposal facilities proposed after June 1988. Commercial facilities of this nature must be licensed by the NDEQ, and after the establishment of the LB 114 statute, the law requires that any prospective applicant for a commercial hazardous waste facility file a “Notice of Intent” (NOI) form to the NDEQ Director. The NDEQ Director then notifies local governing authorities and appoints a specific site review committee that will review and gather facts about the proposed facility within 15 days of receiving the NOI. The committee is appointed to submit a fact-finding report within 180 days of the NOI, and members are chosen by the NDEQ director and the proper local authorities. The applicant is also charged a filing fee which includes the costs associated with the committee. The committee consists of twelve appointed members. The NDEQ director appoints six individuals to represent the following interests: the environment, the medical community, public interest, industry, academia, and community planning. The other six members are appointed local members. Of those six members, one is appointed by the village of Alda, one is appointed by the city of Grand Island, and four members are appointed by the Chair of the Hall County Board. Once the committee is appointed, by Day 21 after the receipt of the NOI the committee will begin holding public meetings to consider the impact of the proposed facility. Within 180 days of the NOI the committee

issues a fact-finding a report. The site review committee is to consider eight separate factors pursuant to statute when drafting their report including but not limited to:

1. *Economic considerations*
 - Is the facility needed? What will be the impact of the community? Does it make economic sense?
2. *The functioning and management of the facility*
 - What types of waste will be handled? What are the plans for future expansion?
3. *Technologies that will be used*
 - Is it reliable? How will the waste be handled?
4. *Site characteristics*
 - Why is this site chosen?
5. *Environmental implications*
 - What kind of site drainage will there be? What is the impact on groundwater? What kind of air emissions will there be?
6. *Transportation implications*
 - How much traffic will be generated? What happens if there is a spill?
7. *Emergency response*
 - How will emergencies be handled? What kind of security will there be? How are the employees trained?
8. *Enforcement and regulation*
 - Who will enforce the provisions from the existing statute and regulations? What type of monitoring plans will be needed? Do the regulators have the capability to enforce the regulations?

After the committee's fact-finding report is issued, the process enters Step Two where Heritage submits its application, the site review committee (SRC) report, and its response, if any. The director of NDEQ reviews Heritage's application for completeness and forwards it to the Hall County Board where they review the report and application and conduct a public hearing within 45 days of receipt. The Hall County Board then has 180 days after conducting a public hearing to make a decision to either approve or deny the application. The local authorities then notify the director of their decision to approve or deny the application. If the application is denied, the decision may be appealed by the applicant and be contested in district court. If the application is approved by the Hall County Board, the process moves onto Step Three. In Step Three, the NDEQ conducts a technical review of the application and from there the NDEQ director makes a preliminary decision on permit issuance. NDEQ will public notice the Director's intent to approve or deny the permit. Once the permit is approved or denied, from there a NOI is released. The public and the applicant are given 30 days to provide comments and request a hearing. If the director deems a hearing appropriate, they will hold a hearing and after the hearing the director will consider the written comments and comments made in the public hearing and make a decision to issue the permit or deny the permit.

A. Introduction to the Facilitator and Their Role

Mr. Macy introduced the committee's facilitator, Mark DeKraai from the University of Nebraska Public Policy Center, in Lincoln, NE. As the committee facilitator, the Public Policy Center's role is to

work to keep the committee on time and on task throughout the site review process, objectively moderate committee meetings, record meeting minutes, and assist the committee chair in putting together the draft report and agendas. The University of Nebraska Public Policy Center representatives are not considered members of the committee, and serve as a neutral facilitators that contribute only to the process of the meetings.

B. Review of Committee Notebooks

Hard copies of the notebooks provided to all members of the Heritage Disposal and Storage Site Review Committee will be available for review at the Grand Island Public Library, 211 N. Washington St., the NDEQ Grand Island Field Office at 215 Kaufman Ave., Grand Island, and at the NDEQ office in Lincoln, 1200 N St. Materials will be updated periodically in the notebooks, and at this web site, <http://deq.ne.gov/NDEQProg.nsf/OnWeb/Heritage>.

The committee notebooks will be a “living” document with additions made as the siting process proceeds - e.g. minutes from meetings. The initial contents of the notebook include a welcome and a short explanation of the siting process by Jim Macy, Director, Nebraska Department of Environmental Quality (NDEQ). Additionally the final report of a previous Site Review Committee is included as an example of how the Site Review Committee conducted their activities. The current Site Review Committee, formed to address the Notice of Intent submitted by Heritage Disposal and Storage, may choose to operate in a totally different manner. The previous report was included only as an example. The Nebraska statutes applicable to the Heritage Disposal and Storage Notice of Intent follow the previous report.

C. Review of Previous Process

The LB 114 statute that was passed in 1987 has only been once used since its inception on June 1988. In 1991, a NOI was received for a proposed hazardous waste storage facility by Van Waters & Rogers Inc. (VWR) in Omaha, NE. The site review committee completed and submitted their fact-finding report for the proposed waste storage facility; then VWR decided not to pursue the type of storage that they proposed. This process has never been used completely to fruition in the State of Nebraska. The previous committee’s report has been included in the notebook, but should only serve as an example on how the committee conducted business in 1991. Joe Francis recommend that all review the copy of LB 114, which is included in the notebook and packet of materials available online.

D. Questions and Answers Related to Committee Work

There were no questions proposed related to the committee work.

V. Description of the Heritage Proposal

A. Description of Site

Morgan Leibrandt of NDEQ, provided a brief introduction to the Heritage Disposal & Storage LLC and its history.

B. Heritage Proposal - Mark Vess, President of Heritage Disposal & Storage LLC

a. *Heritage background and description*

Heritage Disposal & Storage LLC was founded in 2003 on 830 acres of the former Cornhusker Army Ammunition Plant near Alda, NE. Heritage is the largest civilian owned and operated explosive storage, disposal, and recycling center in the U.S. Heritage has developed a state of the art facility from building upon the existing structure and design that the former ammunition plant provided. Since 2004, Heritage has stored, destroyed, and recycled of approximately 2.86 million pounds of explosive material for federal law enforcement. Heritage is a high security facility with 24-hour armed guards. The facility is currently licensed and certified by the U.S. Bureau of Alcohol, Tobacco, and Explosives (ATF) and the State of Nebraska. As of 2016, 550 acres of the Heritage property consist of 117 Richmond style bunkers. Of the 117 bunkers, 60 have been licensed for storage of munitions.

b. *What is the reason for the U.S. Army Contract?*

The Department of Defense (DoD) currently has unserviceable stockpile of approximately 500,000 tons of explosive munitions from World War II, the Korean War, the Vietnam War, and the retirement of various munitions. The U.S. government has a limited capability to dispose of this stockpile, due to the age of their facilities or their facilities not meeting modern environmental standards. The Army has enlisted help from three large prime contractors to handle fifteen different work orders, and one small business contractor (Heritage Disposal & Storage LLC) to assist in disposing of the DoD munitions stockpile. Both the prime contractors and Heritage have been awarded five year contracts to handle the disposal of the munitions stockpile.

c. *Why is heritage an appropriate site?*

Heritage is licensed for storage of up to 16 million pounds of explosive materials. Heritage can expand that capacity in the future to up to 24 million pounds of explosive materials. Heritage is located on the site of the former Cornhusker Army Ammunition Plant where the land has been permanently deed restricted against residential impingement. Explosive safety has already been incorporated into the site. Heritage has put in place state of the art practices and procedures, and have a sterling safety and inspection record, and a proven regulatory and technical compliance record.

d. *What impact will this project have to the surrounding area?*

Heritage strives to be a neighbor friendly business, and take pride in the community as they live in Alda as well. Safety is paramount in the daily operations of Heritage. The proposed project will not affect any existing local activities such as Husker Harvest Days, the shooting park, the model airplane club, etc. Heritage prides themselves in their environmental stewardship, and already have policies and procedures in place to maximize recycling.

e. *What materials are to be stored, destroyed, or recycled?*

The primary materials that will be stored, destroyed, or recycled by this contract will be: Hexachloroethane (HC) Smoke Materials (most commonly found in smoke grenades), the various metal containers that the HC is contained in, the packing materials, and the various shipping and storage containers. The HC smoke materials are still containerized and are designed to burn, and

are not designed to explode. Hypothetically, if a semi would catch fire carrying a truckload of HC containers, the most risk would be from a heavy smoke created by the HC. Although this class of munitions is fairly benign, Heritage has procedures and protocols in place to address all aspects of safely transporting, handling, and disposing of the munitions.

f. How will they be delivered and stored?

Materials will be delivered via U.S. Government contracted Truck or Rail Delivery. The Army will determine best and most economically feasible method to ship the materials to Heritage depending on where the materials are coming from. The materials will be stored on-site at Heritage until the Army determines a processing schedule for those materials. Materials Receipt Accountability and Safety programs will be administered in accordance with DoD Contractor Safety Program Requirements.

g. How will they be destroyed?

The materials will be destroyed by thermal treatment in a Draft Rotary Kiln with very extensive air filtering equipment. The process that they will be using is very proven and very predictable outcomes which helps provided enhanced safety. The processing of the materials is heavily engineered and heavily regulated.

h. What emissions and other products will be created?

A technical study will be done with the HC materials to measure the air emissions through the entire process to fine tune and design the equipment to perform at the level they want to be at. All air emissions will be treated for toxic compounds and particulates. Other emissions will be bottom ash (direct from thermal treatment), fly ash (from air pollution control equipment), and process water that is used to cool and control the air pollution control discharge.

i. Where will everything go?

Air is treated to meet or exceed Nebraska air quality standards and Heritage will go a step farther to anticipate future air quality standards and meet those as well. Recyclable metal will be removed from bottom ash, while the remainder of bottom ash evaluated for beneficial use or offsite landfiling depending on the constituents of that bottom ash. The fly ash will be evaluated for beneficial use, and the process water will be treated and evaporated in a settling pond to eliminate possibility of groundwater contamination.

j. What monitoring will be conducted?

Material for thermal treatment will be screened for compatibility, air monitoring will be carried out to ensure it meets emission limits (NDEQ would have real-time access to data), and analytical testing will be carried out on the bottom ash, fly ash, process water, and surface water.

k. What is the potential economic benefit?

The Heritage development project that will cost between \$15-20 million over a course of two years. There will be significant benefit to local utility companies, energy usage of the plant will be in excess of one million dollars each year. The two year development will require support from local hotels, restaurants, retail locations, etc. After the site is developed, Heritage will be a 24

hour/7 days a week facility. The facility will generate approximately nine million dollars a year in gross revenue for the first three years of the army contract, the gross revenue should grow to approximately about fifteen million dollars in subsequent years. Heritage plans on reviewing the Army's list of its top 500 priorities with NDEQ to help engineer and design the facility to complement the possibility of storing, disposing, and recycling other materials to help provide significant longevity for the site. Upon completion of the Heritage development plans, approximately 60-70 professional jobs will be added to Heritage with 95% recruitment in Nebraska and the local area. Most of the developed jobs would fall into the \$17 – 25 hour range for salary, with higher possible wages for management and supervision.

l. Is there possibility of future expansion?

Heritage's selection as the small business contractor was not taken lightly by the U.S. government. Mark Vess feels there is a high probability of continued contracts, as the current contract requirements required vendors to buy-in to what the DoD is trying to accomplish and become a member of their team.

m. Why?

The process will focus on process safety and environmental compliance. The process ultimately confirms incinerator/air pollution control devices compliance. The process also involves hard to duplicate infrastructure that will allow Heritage to run a safe and environmentally friendly operation.

C. Questions

Does this approval apply only to the HC or does it include other chemicals? - Chad Nabity

Heritage will be screening the top 500 list of items that the DoD is going to look at for disposal. Heritage will be reviewing the DoD's list with NDEQ staff, and if it is possible to add other items from the priority list to the licensing without complicating the licensing process Heritage will add the items to their licensing application. At a later time they may revisit the processing of other materials. – Mark Vess

If there are any other chemicals that are brought on does the process start over? – Chad Nabity

Jim Macy stated that the committee's primary task is to determine if the location is viable for a facility in the area, not all possible chemicals that could be destructed.

Is this the first large scale disposal for HC by the military? Is this a new process? – Dan Purdy

No, the military needed to explore environmentally compliant ways to dispose of the munitions. The military has used environmentally friendly ways to dispose of HC before. Large facilities often have the appropriate newer technologies that help dispose of these chemicals. – Mark Vess

Would it be possible for the committee to get the copy of Mark Vess' presentation? –Chad Nabity

Yes, technical difficulties led to not being able to have copies of the presentation available at the meeting and copies will be made available. – Mark Vess

Timeline for list of materials with the DEQ? – Tim Smith

All of those things will be concurrent as Heritage moves along with their process. – Mark Vess

Heritage is already dealing with disposing of munitions and explosives at the site. What's the difference between what you are doing now and what you plan on doing with HC? Is it more or less on what you're taking on now (in quantity)? - Jon Rosenlund

More information on those specifics will be covered in future presentations by Heritage. – Mark Vess

Will there be reportable quantities of SARA title two onsite? – Jon Rosenlund

Appropriate entities will have that information. – Mark Vess

Would it be possible to get some documentation and description of the HC chemical? - Teresa Anderson

Yes, this will be covered in future presentations by Heritage. – Mark Vess

VI. Action Items

A. Develop and Agree on Process

a. Chairperson Responsibilities

The responsibilities of the chair include setting the agendas of the meeting, reviewing documents, reviewing meeting minutes before they go out to the members, reviewing report drafts.

b. Process mapping

i. *What would make this process successful?*

Teresa Anderson stated that exploring each of the eight factors to consider pursuant to statute in a systematic fashion would help us stay organized. And keeping focused on what we actually need to know in relation to each of the eight factors to consider to help avoid being bogged down by too many details. Karen Bredthauer suggested that continuing to hold meetings in Alda at the Community Center would be both convenient and centrally located for most of the members and general public. Casey Sherlock suggested that the meetings rotate to some of the surrounding local communities that may see the project impacting them (Wood River, Grand Island, etc.). Greg Baxter suggested that we take a cut to the chase approach and make examining the project's impact on the environment a priority as that is what is most important in the long run. Most of the member's agreed that it is important for the committee to see what Heritage is doing today, and if it isn't a security concern, the committee would like to take a tour or even a virtual tour of the site to be more familiar with the site. Chad Nabity and John Turnbull stressed the importance that the committee only had 180 days to complete this process and submit a report, so it is important that the committee stays at a high level of productivity while being realistic and considerate to each member's time.

ii. *When will the next meeting be?*

It was proposed that the next meeting date be determined via an electronic scheduling poll distributed by the Public Policy Center to the committee members. The location of the next

meeting would be determined after a meeting date is agreed upon. Members proposed that hosting future meetings in Alda, Grand Island, and possibly other local communities be considered.

iii. What will the next meeting's focus be?

Jon Rosenlund and Chad Nabity recommended that the second factor (the functioning and management of the facility) on the list of factors the site review committee to consider be the starting point for the committee. Jon Rosenlund recommended that committee focus first on understanding the process and chemical to help expand the committee's knowledge. The committee also proposed that knowledge of what can be done in terms of a site visit be examined and discussed at the next meeting. John Turnbull proposed that the committee have more background information on the considerations before the committee considers going on a site tour or virtual tour.

iv. How should we conduct business?

The committee proposed to have at least seven out of twelve committee members attend a meeting in order to constitute a quorum. It was also proposed that quorum has to be met for voting to be initiated, and a committee member must be present to vote. A majority vote of those present would be needed in order for a vote to pass. The motion to approve the proposed ground rules carries via unanimous acclamation vote. It was proposed that any decision making and organizational specifics not determined by this organizational meeting be discussed next meeting.

v. How will we communicate?

Emails and reminders with draft agendas and documents will be distributed to committee members before meetings. All committee members will have opportunity to comment on drafts. Will have opportunity to comment on draft agenda

B. Election of a Chair

John Turnbull proposed to serve as chair if a vice chair was also elected. Chad Nabity proposed to serve as vice-chair under John Turnbull. Both committee members ran unopposed. John Turnbull was confirmed as Chair of the committee and Chad Nabity as Vice-Chair of the committee. The committee discussed the understanding that if the chair or vice-chair cannot make a meeting they will appoint someone to serve in their capacity in their absence.

VII. Next Steps and Adjourn

A. Member Comments

No member comments were made.

B. Meeting Feedback

A meeting evaluation survey was distributed to the committee members to help collect feedback on the committee member's opinions to better improve future meetings.

C. Summary of Next Steps

- a. A Doodle Scheduling Poll will be sent out to committee members to help schedule the next meeting in May.
- b. The location for the next meeting will be determined after the meeting is scheduled.
- c. Committee member will bring ideas or proposals for committee and meeting ground rules to the next meeting
- d. Draft agendas and meeting minutes will be distributed in advance to committee members for comment.
- e. Information will be collected on the legal specifics of the committee doing a site visit to Heritage.

D. Public Comments

No public comments were made or proposed.

E. Adjourn

John Turnbull adjourned the meeting at 09:15 PM CST.

Hazardous Waste Site Review Committee Meeting Presentation Materials and Handouts

April 25th, 2016

The following packet was provided to the committee by the Nebraska Department of Environmental Quality (NDEQ) for committee notebooks. Meeting minutes and handouts were continuously provided by NDEQ for committee members to update their notebooks. Notebooks were updated and maintained for public viewing at the NDEQ Lincoln and Grand Island offices, the Grand Island Public Library, and on the NDEQ website.

Hazardous Waste
Management Facility
Local Site Review Packet

March 2016



Nebraska Department
of Environmental Quality



Pete Ricketts
Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY
Jim Macy

Director

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To the Interested Reader:

The purpose of this notebook is to provide background documents and information to the Site Review Committee established by §81-1521.09(1) and other interested persons on the proposal by Heritage Disposal and Storage, LLC (Heritage), to install and operate a hazardous waste management facility at 345 South 80th Rd., Alda, Nebraska. The primary duty of the Site Review Committee is to prepare a final report which conveys the thoughts of the community to the Director of the Nebraska Department of Environmental Quality (NDEQ) on the proposal. The Site Review Committee does not serve in an approval or decision making capacity, rather they are asked to ensure that the siting process is comprehensive, educational and credible.

The Site Review Committee is required by statute (§81-1521.13) to consider the following:

- Economic considerations
- Function of the facility
- Technological considerations
- Site characteristics
- Environmental quality
- Transportation
- Emergency situations
- Applicable regulations and enforcement

The Site Review Committee is required to prepare a final report within 180 days of Heritage filing a Notice of Intent to apply for a permit to operate a commercial hazardous waste management facility. When the Director of the NDEQ receives the Site Review Committee report, Heritage then will make application for all required permits. NDEQ will review the applications to ensure they are complete, and copies of those applications and the Site Review Committee report are forwarded to Hall County Board. The Hall County Board must hold a hearing within 45 days of the receipt the applications and the Site Review Committee report. If the Hall County Board approves the proposal, the Department of Environmental Quality will begin reviewing the application. If the Hall County Board rejects the proposal, the Department of Environmental Quality will take no action.

The statutory requirements applicable to the siting of a commercial hazardous management facility are unique and provide opportunities for issues to be raised at an early date. This affords Heritage the opportunity to address those issues before the formal review of the applications begins. Similarly the process allows Heritage the opportunity to fully explain their operation and address concerns.

On behalf of the Department we look forward to working with the Site Review Committee over the coming months and we welcome comments from the Committee, and any interested person. Please feel free to direct comments to me, Joe Francis, or any member of the Departments staff.



Jim Macy, Director
Nebraska Department of Environmental Quality

This notebook has been provided to all members of the Heritage Disposal and Storage, Site Review Committee.

The notebook will be a “living” document with additions made as the siting process proceeds - e.g. minutes from meetings. The initial contents of the notebook include a welcome and a short explanation of the siting process by Jim Macy, Director, Nebraska Department of Environmental Quality (NDEQ). Additionally the final report of a previous Site Review Committee is included as an example of how the Site Review Committee conducted their activities. The current Site Review Committee, formed to address the Notice of Intent submitted by Heritage Disposal and Storage, may choose to operate in a totally different manner. The previous report was included only as an example. The Nebraska statutes applicable to the Heritage Disposal and Storage Notice of Intent follow the previous report.

The notebooks will be available for review at the Grand Island Public Library, 211 N. Washington St., at the NDEQ Grand Island Field Office at 215 Kaufman Ave., Grand Island and at the NDEQ office in Lincoln, 1200 N St. The notebook will be available during normal business hours at the Grand Island Library and at the NDEQ Lincoln office. If you would like to review the notebook at the NDEQ Grand Island Office, please contact Nick Weaver (308) 991-1262. Additionally, all materials will be available on the NDEQ web site <http://deq.ne.gov/NDEQProg.nsf/OnWeb/Heritage>.

Questions may be directed to Joe Francis, Field Services and Assistance Division, at (402) 471-6087.

**List of Committee Members Appointed by the
Director of the Department of Environmental Quality
for the Hazardous Waste Site Review Committee**

1. John Turnbull Environmental Representative
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6. Chad Nabity Community Planner
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April 20, 2016

**List of Committee Members Appointed by
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for the Hazardous Waste Site Review Committee**

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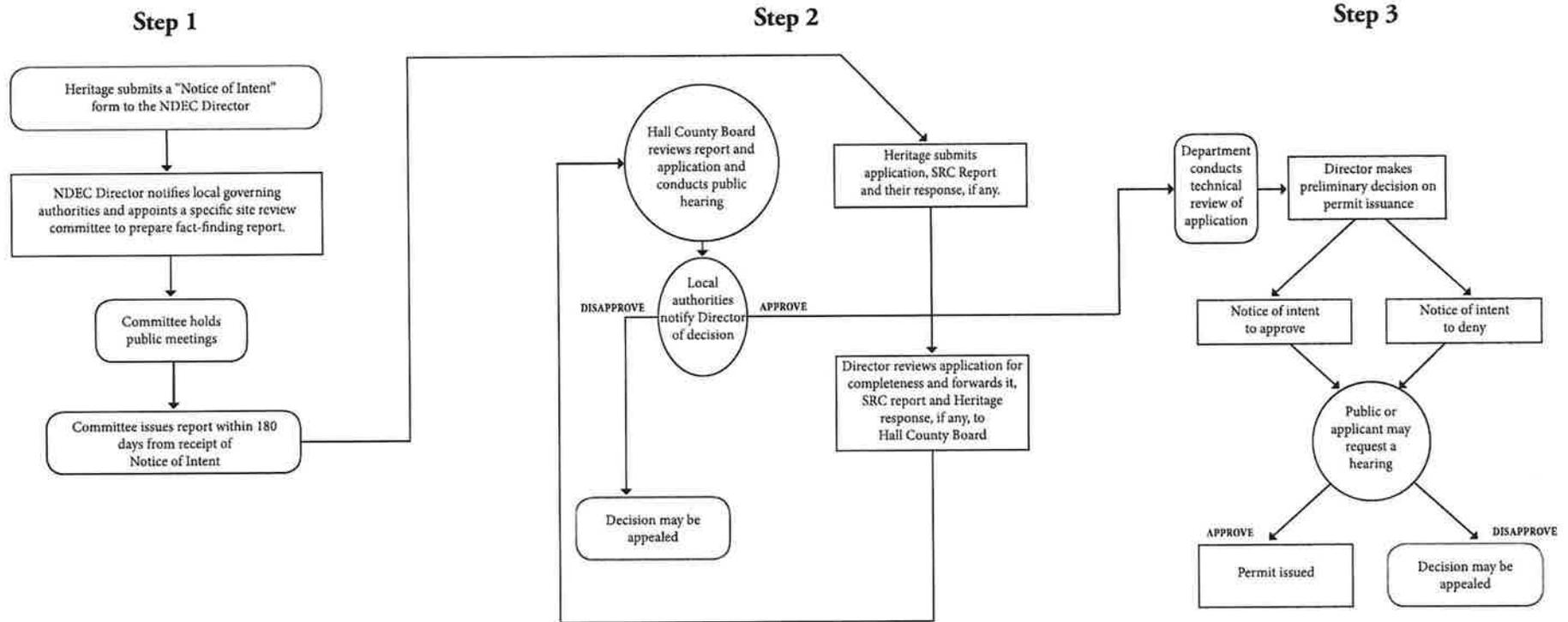
11. Karen Bredthauer
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12. Greg Baxter
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Project Facilitator

13. Mark DeKraai
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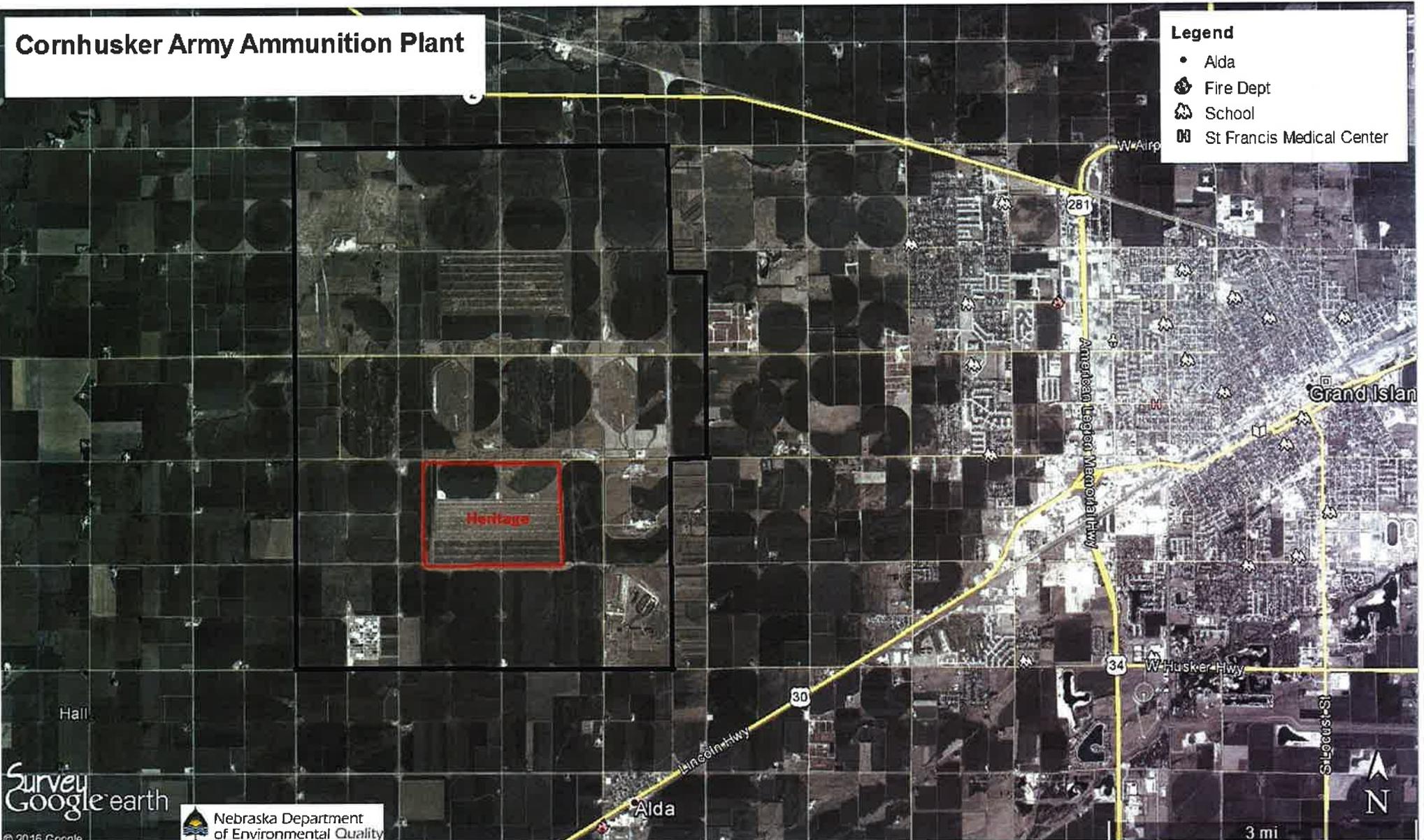
Commercial Hazardous Waste Management Facility Siting Process



Cornhusker Army Ammunition Plant

Legend

- Aida
- 🚒 Fire Dept
- 🎓 School
- 🏥 St Francis Medical Center



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Nebraska Department of Environmental Quality

Factors the Site Review Committee is to Consider Pursuant to Statute

- 1. Economic considerations**
- 2. The functioning and management
of the facility**
- 3. Technologies that will be used**
- 4. Site characteristics**
- 5. Environmental implications**
- 6. Transportation implications**
- 7. Emergency response**
- 8. Enforcement and regulation**

Frequently Asked Questions
Heritage Commercial Hazardous Waste Management Facility
Site Review Committee – Frequently Asked Questions

What is the purpose of the Heritage Site Review Committee?

The Site Review Committee (SRC) was formed to comply with the provisions of Nebraska statute sections Nebraska Rev. Stat. §81-1521.08 through 81-1521.23. Specifically, §81-1521.09 states, “The purpose of establishing the committee shall be to provide for early public involvement in the consideration of a proposed facility.” With few exceptions when a business applies for a permit from the Nebraska Dept. of Environmental Quality (NDEQ) there is no opportunity for public input until NDEQ has reviewed the application and public noticed intention to approve or deny the proposal.

How was the Site Review Committee formed?

The SRC is comprised of 12 individuals; six regional representatives selected by the Director of NDEQ, and six local representatives selected by a combination of local governments; one by the Mayor of the Village of Alda, one by the City Administrator or Mayor of Grand Island and four by the Chair of the Hall County Board. The six individuals selected by local governments represent the interests of the general citizens and the regional representatives have expertise in specific areas of interest: environmental, academic, industry, community planning, public interests and medical.

What are Site Review Committee members expected to do?

The SRC must submit a report to the Director of NDEQ within 180 days (October 19, 2016) of the receipt of the Heritage Notice of Intent. The report will summarize the discussions that occurred during SRC deliberations. The statutes require the SRC to consider the following factors: economic considerations, the functioning and management of the facility, technologies that will be used, site characteristics, environmental implications, transportation implications, emergency response, and enforcement and regulatory. It is important to note these are the factors statute specifies. The SRC may consider other factors as well. The final report will identify the issues that were raised and resolved, issues which were not resolved, and discuss unanswered questions and why they were not answered.

How long will the Site Review Committee be in existence?

The SRC will complete their work when the final report is issued. The goal is to issue the report by October 19th. It is possible, with agreement between the SRC and Heritage, that the deadline for the final report could be extended. However, the goal is to complete work within the statutory timeframe. If Heritage proposes changes to their facility application after the SRC has completed their work, the Director of NDEQ could ask the SRC to review those changes and amend their report as appropriate.

How many times will the meetings of the Site Review Committee be conducted and how often will they meet? What will be the time commitment?

These are questions that the SRC will have to decide. The Director of NDEQ serves as temporary chair for the first meeting. It is the responsibility of the SRC to elect a chair at the first meeting; decisions as to how meetings will be conducted and how often the SRC will meet will be decided by the SRC. NDEQ staff will serve as a resource for the SRC and will help facilitate the functioning of the SRC. Additionally, statutes require NDEQ to provide the services of a professional facilitator to assist the SRC in their deliberations including setting agendas, recording minutes of the meetings, and drafting the final report.

How often has this process occurred?

The statute was passed in 1987. It has only been used once, in 1991. Van Waters and Rogers, a company located in Omaha, intended to apply for a permit to operate a commercial hazardous waste storage facility and submitted their Notice of Intent. A SRC was formed and their report was submitted to the Director of NDEQ. However, before the company submitted their application for review, they elected to modify their method of operation and a permit was not required. Thus, the process was not followed to completion.

What happens to the Site Review Committee's final report?

Once the SRC submits their report to the Director, Heritage can then submit their permit applications to NDEQ which will review the applications for completeness. However, a technical review will not occur at that time. The Director submits copies of the applications and a copy of the SRC's final report to the Hall County Board. The Hall County Board must hold a hearing within 45 days of receipt from NDEQ of the applications and SRC report. The Hall County Board has 180 days to approve or deny the proposal by Heritage. If the Heritage proposal is approved by the Board, NDEQ will begin the technical review of the application. If the proposal is denied by the Board, NDEQ will take no further action.

Hazardous Waste Site Review Committee Meeting Agenda & Minutes

May 24th, 2016

Hazardous Waste Site Review Committee Meeting

May 24, 2016, 4:00 – 6:00 PM

Alda Community Center

6410 W Highway 30, Alda, NE

AGENDA

- I. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**
- II. Roll Call**
- III. Review and Approval of Meeting Minutes**
- IV. Welcome and Introductions**
 - A. Welcome**
 - B. Review of the Agenda**
- V. Action Items**
 - A. Develop and Agree on Procedural and Ground Rules**
 - B. Develop and Agree on a Future Meeting and Topic Framework**
- VI. Committee Comments and Questions**
 - A. Review of Comments, Questions & Answers from Previous Meeting**
 - B. Heritage Presentation on Facility Functions, Technology & Environmental Quality**
 - 1. #2 Function of the facility, management processes, wastes to be handled & plans for future expansion**
 - 2. #3 Technology to be used and why, plans for quality control, reliability of technology, sequence of steps from generation of waste to postclosure of facility**
 - 3. #5 Ground water protection, air emissions, and other factors related to environmental quality**
 - C. Question and Answer**
- VII. Next Steps and Adjourn**
 - A. Member Comments**
 - B. Meeting Feedback**
 - C. Summary of Next Steps**
 - D. Public Comments**
 - E. Adjourn**

May 24th 2016, 04:00 PM CST
6410 W Highway 30, Alda, NE 68810

I. Open Meeting Law Information

The Chair, John Turnbull, called the meeting to order at 04:02 PM Central Daylight Time. Chairman Turnbull verified public notice and availability of copy of law in the meeting location – NEB. REV. STAT. §§ 84-1407 THROUGH 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)

II. Roll Call of Appointed Hazardous Waste Site Review Committee

Eleven of the twelve appointed committee members were present. There was one member of the public present at the meeting.

First Name	Last Name	Attendance
Teresa	Anderson	X
Greg	Baxter	X
Karen	Bredthauer	
Chris	Exstrom	X
Alex	Harness	X
Brad	Kloss	X
Chad	Nabity	X
Dan	Purdy	X
Jon	Rosenlund	X
Casey	Sherlock	X
Timothy	Smith	X
John	Turnbull	X

Others in attendance: Joe Francis, Mark DeKraai, Mark Vess, Dwight Miller, Tricia Scott, Dan LeMaistre, and Quinn Lewandowski.

III. Review and Approval of Meeting Minutes

Chad Nabity made a motion to approve the April 25, 2016 meeting minutes with suggested corrections in the wording of several paragraphs explaining the process. The motion was seconded by Greg Baxter; the motion passed by unanimous roll call vote with no abstaining votes and no dissensions.

- **Yay:** Anderson, Baxter, Exstrom, Harness, Kloss, Nabity, Purdy, Rosenlund, Sherlock, Smith, and Turnbull
- **Nay:** None
- **Abstentions:** None

IV. Welcome and Introductions

The committee introduced themselves. A biography for each appointed committee member is available within the binder. The agenda for the meeting was reviewed in the context of feedback provided at the last meeting and the agenda was approved.

Mark DeKraai lead a brief review of the feedback received at the organizational meeting on April 25th. The survey measured the committee’s responses via a Likert Scale and open comment boxes. All of the meeting review questions measured achieved an average rating of “Excellent” to “Very Good.” Results of the meeting feedback survey are included in the table:

Questions & Comments	Rating
1. How well was the role of the committee explained & what could have improved the explanation of the committee role?	1.50*
<ul style="list-style-type: none"> • Don't reinvent the wheel • I felt that all areas of the committees responsibilities were covered well 	
2. How well was the hazardous waste site review process explained & what could have improved the explanation of the site review process?	1.58
<ul style="list-style-type: none"> • The process flow chart is difficult to understand early on • I'm still not sure what will eventually get approved. This site for this chemical (HC) or this site for various chemicals • Good introductory info 	
3. How well was the brief Heritage proposal explained & what could have improved the Heritage proposal explanation?	1.67
<ul style="list-style-type: none"> • Copy of presentation 	
4. How useful was development of the process for the Committee & what could have improved development of the Committee process?	1.91
<ul style="list-style-type: none"> • Could have had more time • Not fast enough 	
5. How well was the process conducted for electing a Committee Chair what could have improved the election process?	1.83
<ul style="list-style-type: none"> • It is difficult to know who is most appropriate after only 1 meeting • I think we ended up in the right place • Self-nominating a bit awkward 	
6. What were the major strengths of today's meeting?	
<ul style="list-style-type: none"> • Good involvement of the committee • Foundational structure was well explained • It's a good start • 12 members with individual opinions and strengths • Order of agenda • Explanation of committee's roles and state statutes • Did not get too far into the weeds 	
7. What else could have improved the meeting?	
<ul style="list-style-type: none"> • Very good start, great guidance! • Less breaks. Let's accomplish more for 2.5 hours • Limit breaks 	

*Ratings were from 1=excellent to 5=terrible

V. Action Items

A. Develop and Agree on Procedural and Ground Rules

Based on suggestions from the April and May meetings, the following ground rules were proposed and established for the Committee:

-
1. A majority of the appointed committee members must be present to establish a quorum (seven of twelve members must be present).
 2. Once a quorum is established, motions shall be passed based on a simple majority vote of committee members present
 3. Committee members will be respectful of each other and their opinions and viewpoints.
 4. Committee members will help the Committee stay on task.
 5. Committee members are encouraged to say what they think as they move throughout the process.
 6. The Committee will operate on a consensus basis where possible.
 7. The Committee will conduct a roll call vote on the final report

B. Develop and Agree on a Future Meeting and Topic Framework

The following dates and topics were set for future meetings:

1. June 21st – Organized public tour of the Heritage Facility

Rules of the tour will be briefed on the bus. The tour will begin with the loading of the buses at 3:45 PM CST at the Alda Community Center (6410 W Highway 30, Alda, NE 68810), with the buses leaving promptly at 4:00 PM CST. For the June 21st tour there will be no official record of questions asked. Members of the committee and public are encouraged to write down their questions and bring them to the June 23rd meeting for the question(s) to be included in the official record and receive official answers.

2. June 23rd – Alda Community Center

The focus of the June 23rd meeting will be

- a. Questions and answers resulting from the site visit
- b. #7 Plans for responses to emergencies and for site security, qualifications, and training of personnel, and actions to be taken when there are operating problems.
- c. #6 Transportation considerations such as methods to be used, waste containment during transport, the party responsible for transport, timing of arrivals, routing, and response plans in case of spills.

3. July 19th – Location TBD

The focus of the July 19th meeting will be

- a. #8 Enforcement provisions, including applicable regulations, monitoring plans, who is responsible for enforcement, sequence and timing of possible enforcement, and the ability of government agencies to ensure compliance.
- b. #1 Economic considerations such as whether the facility is needed, profit expectations for the facility, how the facility will be operated, effects on the community, the potential for compensation to the local governing body, and aspects related to closure of the facility.

VI. Committee Comments and Questions

A. Review of Comments, Questions & Answers from Previous Meeting

There were no comments on the questions and answers that were reflected in the April 25th meeting minutes.

B. Heritage Presentation on Facility Functions, Technology & Environmental Quality – Dwight Miller, PARAMETRIX

Dwight Miller gave a presentation on factors two, three, and five. He also pointed out that these factors are also closely related to factor four (site characteristics) and factor eight (enforcement and regulation).

i. Factor #2: Function of the facility, management processes, wastes to be handled & plans for future expansion

1. Facility management

Heritage Disposal & Storage, LLC was founded in 2003 by Mark Vess, current Heritage Disposal President, on the site of the former Cornhusker Army Ammunition Plant in Alda, NE. The facility follows strict federal requirements for safety and security. Storage buildings are certified by the U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) and the State of Nebraska. Heritage already implements concise inventory and accountability controls.

2. Wastes to be handled

The contract awarded to Heritage is primarily for the destruction of HC-smoke (Hexachloroethane) materials. HC-Smoke is mostly used in smoke grenades in training and in combat. These materials have been manufactured since the 1930's and have been amassed in military stockpiles throughout the nation. In the future, Heritage could process related military smoke munitions, which would require modifications in their air quality permit. At this point the design for the facility is primarily focused on the processing and destruction of the HC-smoke materials, but there is enough latitude and capability in the design of the equipment and air pollution control to potentially handle other smoke munitions if Heritage is awarded other contracts in the future. This equipment will also be able to handle law enforcement and civilian materials.

3. Relationship of treatment technology to the overall site master plan

Heritage is a high-security (24-hour armed guard) 900-acre facility with controlled access. Heritage has an ATF explosives manufactures license, which is required by any facility that chemically alters or changes any explosive material even in the de-militarizing, neutralizing, or destruction process. Heritage includes 60 renovated and licensed bunkers with sixteen million net explosive weight (N.E.W.). Heritage has the capability to renovate and license 57 more bunkers to increase storage capacity. The bunkers are fully protected from lightning and static.

4. Plans for future expansion

Heritage plans to increase the capability of the facility to handle 15,000 tons/year, which is approximately 50% greater than the Army contract. The facility's business plan is based on the proposed facility capacity. There is potential to add a second thermal

treatment line using the same air pollution control equipment, which would provide feedstock flexibility but does not increase capacity.

ii. **Factor #3: Technology to be used and why, plans for quality control, reliability of technology, sequence of steps from generation of waste to post-closure of facility**

1. Receiving/storage

Heritage plans to utilize its unmatched storage capacity by the bunkers extensively.

2. Pre-processing

There will be some pre-processing upon receipt of the materials and disposing of crates, pallets, packing material, etc.

3. Thermal treatment

The thermal treatment will include a rotary kiln with a 12-foot diameter x 26 foot long with a five tons/hour capacity. The rotary kiln is indirectly fired (heating the outside of the kiln) and includes a ram feeder with an air lock (prevents loss of heat and emissions out of the kiln). The after-burner is sized to the rotary kiln, and is direct fired. The thermal treatment also includes an air locked bottom ash removal portion located at the end of the kiln which will help collect the leftover metals.

4. Air pollution control (APC)

The APC includes the direct-fired after-burner, scrubber, mist eliminator, absorption tower, and 120' tall stack. Many measures are being taken to help design the equipment and facility to help control the zinc oxide by-product that the destruction of HC-smoke produces, which has caused other facilities challenges in the past due to its tendency to clog APC equipment. More information will be provided on the process engineering as designs continue to ensure the facility is able to maximize the amount of material processed while minimizing the chance of equipment having downtime.

5. Recycling and residuals disposal

Approximately 40% of the materials processed under this contract will contain recyclable metals. There will be recycling opportunities for the wood pallets, crates, and packing materials that will be used to ship the materials to be processed. The beneficial reuse for the bottom ash and fly ash (from APC) will be evaluated by a third party analytical study. Bottom ash can be recycled for use in structural fill, and fly ash is often recycled for use as a cement additive. Off-site landfill disposal will be used for solid waste and hazardous waste that cannot be recycled. The facility will reuse water and waste water will be pond evaporated.

6. Incorporate existing facilities and processes

Work conducted under the contract will incorporate existing facilities and processes at the Heritage site.

iii. **Factor #5: Ground water protection, air emissions, and other factors related to environmental quality**

1. Surface water

All active operations will occur on paved surfaces, with most operations occurring indoors/under cover. Process water will be treated/evaporated. National Pollution Discharge Elimination Permit will be obtained for a surface water general permit and wastewater treatment and discharge

2. Groundwater protection

All active operations will occur on fully paved surfaces. There will be no onsite landfilling of residuals. The process water and surface water ponds will be fully lined. Active spill prevention and cleanup protocols will be followed under the National Pollution Discharge Elimination Permit (NPDES).

3. Air emissions

Preparation for air emissions permitting has begun under Nebraska Department of Environmental Quality (NDEQ). Plans to utilize the best available control technology (BACT) are being made. Process engineering will define emissions and identify final BACT equipment for this project. Air modeling will be used to determine air impacts.

4. Meet and exceed all environmental regulations (local, state, and federal)

Heritage is acquiring all necessary permits to carry out its business plan, which requires an intensive certification process of the facility.

iv. **Current Work Activities being undertaken:**

- Site plan
- General arrangement of equipment and utilities/infrastructure
- Process design basis
- Performance of thermal treatment equipment
- Process flow diagram
- Mass and energy balance

v. **Permitting/Approvals:**

1. Local (Hall County)

- a. Land-use, building, fire, electrical, flood plain

2. State (NDEQ)

- a. Site Review Committee Report, Air Quality, NPDES, Resource Conservation and Recovery Act (RCRA) Subtitle C TSDf Permit

3. Federal

- a. ATF, Department of Defense (DoD), Environmental Protection Agency (EPA)

vi. **Next Steps:**

1. Data/process modeling (determine emissions for air permitting)
2. NDEQ air permit pre-application meeting
3. Test facsimile material (Hazen Research)
4. Mass and energy balance (MEB) for final process engineering and equipment specification
5. Permit application and submittal package
6. Piping and instrumentation diagram (P&ID), and facility and site design

vii. **Planned Schedule:**

- Hazardous Waste Site Review Committee (SRC) – 180 days from notice of intent (April-October)
- Hall County review/decision – Up to 180 days from SRC Report
- Permit package – submit within eight weeks from SRC Report
- Final facility and site design – Spring 2017
- Construction – begin Summer 2017
- Production – begin Summer/Fall 2018

C. **Questions and Answers**

At 15,000 tons per year vs. capacity, would you be progressively falling behind on processing the stockpile?

No, the Army will ship in an amount of materials that can be safely be processed and stored within Heritages capabilities. Heritage will move to being a 24 hour-a-day operational facility to process these materials, mostly due to the fact that the equipment would be damaged if it was shutoff and cool downed every single day. Materials will continually be received and processed to allow Heritage to be a safe and fully operational 24/7 facility. Heritage's storage capacity will be a great factor in keeping Heritage moving forward in processing these materials.

Is the pre-processing a mechanical process?

Mechanically assisted human processing will be used. All materials will be unpackaged by the workers. The materials will be coming from 29 different Army depots from different areas of the U.S., so there will be some minor differences in how the materials are shipped/arrive. The materials that Heritage will be receiving is very user friendly. The conveyor belt used in processing will be color coded each day to help communicate to the workers what specific material they are processing. This will help ensure the communication of the processing like-materials together.

How much water will be a by-product of the process?

We are not sure of that yet. It will be approximately 10,000-20,000 gallons per day.

What kind of contaminants might be in that water?

The water will be high in dissolved solvents. No organics will remain after going through the processing of the rotary kiln. The water will be very salty and contain mostly chlorides & zinc. The water will be treated to eliminate those solvents.

Would birds and animals be prevented from getting into the water by-product?

The water would be fully fenced and there will be bird prevention on top of evaporation ponds as well.

Do you have any more details with the Air Pollution Control (APC), on what exactly you will be scrubbing for?

That is in the next steps of testing the materials. The testing entity will determine the ideal temperature to treat these materials, and try to maximize the efficiency of APC controls at different steps throughout the process. Heritage is making sure the best technology is available and is bringing the best minds around the table to ensure Heritage has not only the best operated facility in the country, but also the most environmental safe and compliant. There are only eleven facilities nationwide that are able to do this type of work (with HC-smoke).

The final design of the APC won't be done until the third party testing group has done their work, is that correct?

Yes, the testing will help validate our assumptions and give us the most efficient and clean running system possible.

How does a contract become awarded when you don't have the complete plan to process these materials yet?

The engineering breakdown of what they propose to use has already been submitted to the Army, and it is a proven process that works. The information that NDEQ needs for the air permit, needs to be a definite 100% correct. Over two book volumes of information was submitted to the government and is about 99.9% complete on what they intend to do. It is required by DEQ to have a 100% complete picture of how everything will function. The Heritage facility has already had inspections that met 100% compliance by the ATF, the EPA, and the Chemical Safety Board. The Army put specific requirements into the contract that required a small business in the U.S. that was a 100% RCRA (Resource Conservation and Recovery Act) certified facility to store and treat these materials. There currently is no small business facility in the U.S. that meets the capability to store and treat these materials, so their contracting vehicle was designed to create one. That is why this is a big deal. Since Heritage's founding in 2003, they have already processed 2.86 million pounds of materials and have a sterling inspection record. Heritage has had 32 inspections over the years from a variety of agencies and has never had a write-up of any type. The government is trusting that Heritage can be the one that can expand its capabilities based on an already proven track record.

It sounds like there are already APCs on a lot of this equipment, is it correct that we are sourcing new APCs for this equipment for this project?

Yes, the rotary kiln has actually been previously assembled and been proven to meet air quality standards, the only thing was that it was purchased in Dade County, Florida and did not go

through this process that we are going through now. Soon after the rotary kiln was assembled in 1989, the EPA stepped in and stated that the operation was unpermitted, and that a facility cannot even build this type of equipment until they approve it. The machine then sat dormant while litigation continued until it was disassembled just a few years ago. Heritage purchased this machine, and will be getting a machine that has never been used. Heritage will be modernizing it and adding infrastructure to it, and this machine would be cost prohibitive today due to it being made of stainless steel and iconel steel. Today machines such as this are only manufactured with iconel steel in the most critical part of the machine, so getting a machine that is built entirely of iconel and stainless steel is a big deal.

Why does all this HC need to be destroyed?

The military wanted to develop something that was something less of a health hazard. They found in very large concentrations, that exposure to the HC smoke has health implications over the long-term. No one has ever died from directly inhaling HC smoke, but the military wanted to develop something that was more user friendly. The stockpile developed over the years from stockpiling munitions for wars, and the fact that the military found that in battle conditions, the soldiers preferred to use the newer munitions over using up old leftover munitions from previous wars.

What is the life-expectancy of this equipment?

This equipment, when following a regular maintenance schedule, will last approximately 25-35 years.

For the people that have had prolonged exposure to the smoke, what kind of health issues were shown in these individuals?

Health issues have been shown in a small percentage of those that have experienced large prolonged exposure to this smoke (in military training situations) and most of the health concerns were respiratory issues.

If any sediments that are gathered in the evaporation ponds turn out to be hazardous, which hazardous waste dump do you plan to ship them to?

That is another one of those economic issues that will be determined.

What would be the plan/method of transport of any hazardous materials away from Heritage?

That is yet to be determined.

With such high usage of natural gas and electricity, will there have to be an upgrade of utilities already onsite?

That will be taken care of with the site civil work assessment and increasing the capabilities for the facility.

VII. Next Steps and Adjourn

A. Member Comments

There were no additional member comments.

B. Meeting Feedback

An anonymous meeting evaluation survey was distributed to the committee members to help collect feedback on the committee member's opinions to better improve future meetings. Results of the survey and comments will be shared at the next organized meeting on June 23rd.

C. Summary of Next Steps

- i. All questions asked at meetings will be compiled in a separate document for public and committee reference.
- ii. Two meetings will be held in June, one of them being an organized tour of the Heritage facility. The bus for the tour will load at 3:45 PM CDT on June 21st from the Alda Community Center. The bus will leave for the organized tour of the Heritage facility promptly at 4:00 PM CDT. Those not on the bus, will not be allowed to enter the Heritage facility.
- iii. The following meetings will be June 23rd at 4:00 PM CDT at the Alda Community Center and July 19th at 4:00 PM CDT – location to be determined.

D. Public Comments

No public comments were made or proposed.

E. Adjourn

John Turnbull adjourned the meeting at 6:08 PM CDT

Hazardous Waste Site Review Committee Meeting
Presentation Materials and Handouts

May 24th, 2016



HDS Facility Expansion Engineering & Permitting

HERITAGE DISPOSAL & STORAGE, LLC

DWIGHT MILLER, PARAMETRIX

MARK VESS, HDS

May 24, 2016

PRESENTATION OUTLINE

1. Factors considered in this presentation
2. Additional factors
3. Permitting/approvals
4. Project schedule
5. Q&A

FACTORS BEING DISCUSSED

#2 The function and management of the facility

#3 Technologies that will be used

#5 Environmental implications

Related Factors:

#4 Site characteristics

#8 Enforcement and regulation

#2 THE FUNCTION AND MANAGEMENT OF FACILITY

- Facility management
- Wastes to be handled
- Relationship of treatment technology to the overall site master plan
- Plans for future expansion

FACILITY MANAGEMENT

- Owned and operated by Heritage Disposal & Storage, LLC
- Mark Vess - Founder and President
- Founded in 2003 at the Former Cornhusker Army Ammunition Plant, Alda, NE
- Facility operations follow strict federal (Army) requirements for safety and security

FACILITY MANAGEMENT (CONT.)

- Explosives materials property receipt
- Storage (ATF / Nebraska certified facilities)
- Inventory / accountability controls
- Destruction / Material Documented As Safe (MDAS) recycling certification
- Photographic validation

WASTES TO BE HANDLED

- Primary: HC-Smoke (hexachloroethane)
- Future: Related military smoke munitions (colored)
- Law enforcement and civilian materials
- Each will require air quality permit modification

OVERALL SITE MASTER PLAN

- 900-acre facility with controlled access
- High security / 24-hour armed guard
- ATF Explosive Manufactures License
- 16 M Net Explosive Weight (NEW) storage in 60 licensed bunkers
- Ammunition decommissioning (small arms)
- Hydrolysis facility (fireworks)

PLANS FOR FUTURE EXPANSION

- Facility sized to handle 15,000 tons/yr.
- Approximately 50% greater than Army contract
- Facility's business plan based on the proposed facility capacity
- Potential to add second thermal treatment line using same air pollution control equipment
 - Provide feedstock flexibility
 - Does not significantly increase capacity

#3 TECHNOLOGIES THAT WILL BE USED

- Receiving/storage
- Pre-processing
- Thermal treatment
- Air pollution control (APC)
- Recycling and residuals disposal
- Incorporate existing facilities and processes

THERMAL TREATMENT AND APC

- Rotary kiln
 - 12-foot diameter
 - 5 tons/hr capacity
 - Indirect fired
 - Ram feeder with air lock
- After-burner
 - Sized to rotary kiln
 - Direct fired
- Bottom ash removal

AIR POLLUTION CONTROL

- Direct-fired after-burner
- Scrubber
- Mist Eliminator
- Absorption Tower
- Stack – 120'

RESIDUALS RECYCLING AND DISPOSAL

- Up to 40% recyclable metals
- Beneficial reuse – based on analytical study
 - Bottom ash – structural fill
 - Fly ash (from APC) – cement additive
- Off-site landfill disposal
 - Solid waste landfill – if not hazardous
 - Hazardous waste landfill
- Reuse water and pond evaporate

#5 ENVIRONMENTAL IMPLICATIONS

- Surface water
- Groundwater protection
- Air emissions
- Meet and exceed all environmental

SURFACE WATER

- All active operations on paved surfaces
- Most operations indoors/under cover
- Process water – quench and APC
- Treatment/evaporation of process water
- National Pollution Discharge Elimination Permit (NPDES)
 - Wastewater treatment and discharge
 - Surface water general permit

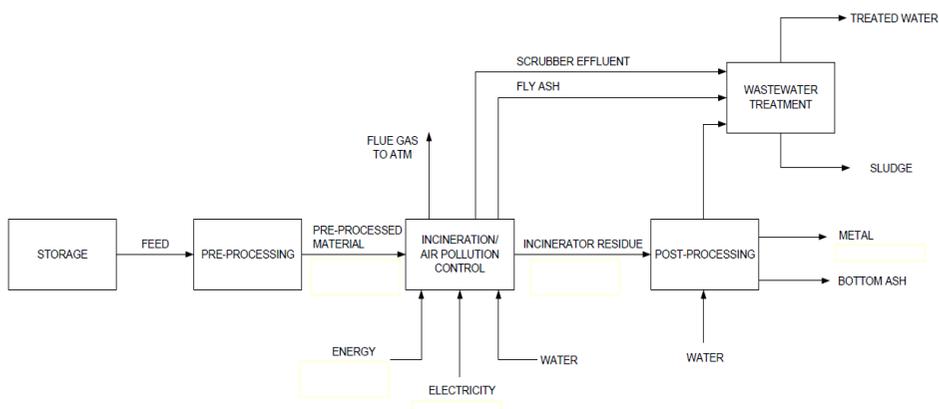
GROUNDWATER PROTECTION

- Fully paved active operations areas
- No onsite landfilling of residuals
- Fully lined process water and surface water ponds
- Active spill prevention and cleanup protocols under NPDES

AIR EMISSIONS

- Permitting under NDEQ
- Using best available control technology (BACT)
- Process engineering will define emissions and identify final BACT equipment
- Air modeling will determine air impacts

Block Flow Diagram



Parametrix

DRAFT DESIGN BASIS – THERMAL TREATMENT

Incinerator		
Ram feed system		Semi-continuous
Minimum batch size (NEW)	lbs	15
Maximum batch size (NEW)	lbs	25
Items per hour		
Feed capacity (Gross)	lbs/hr	
Average feed, NEW	lbs/hr	
Average feed, non-NEW	lbs/hr	
Incinerator type		Indirect-fired
Drum dimensions	feet	12' d x 18'
Maximum operating temperature	°F	2,600
Drum burner capacity	MMBTU/hr	20
Incinerator residence time	minutes	
After burner type		Direct-fired
Afterburner chamber size	feet	12' d x 16'
Afterburner capacity	MMBTU/hr	5
Afterburner residence time	seconds	>2
Destruction and removal efficiency	%	99.99
Air pollution control equipment		Venturi scrubber
Air pollution control equipment		Mist eliminator
Air pollution control equipment		Absorption Tower
Stack dimensions	feet	8' d x 120'
Draft fan	CFM	26,000
Electricity requirement	kW	2,500

CURRENT WORK ACTIVITIES

- Site plan
- General arrangement of equipment and utilities/infrastructure
- Process design basis
- Performance of thermal treatment equipment
- Process flow diagram
- Mass and energy balance

PERMITTING/APPROVALS

1. Local (Hall County)
Land-use, building, fire, electrical, flood plain
2. State (NDEQ)
Site Review Committee Report
Air Quality, NPDES, RCRA Subtitle C TSDf Permit
3. Federal (ATF, DOD, EPA)

NEXT STEPS

1. Data/process modeling (determine emissions for air permitting)
2. NDEQ air permit pre-application meeting
3. Test facsimile material (Hazen Research)
4. Mass and energy balance (MEB) for final process engineering and equipment specification
5. Permit application and submittal package
6. Piping and instrumentation diagram (P&ID), and facility and site design

SCHEDULE

- Site Review Committee (SRC) – 180 days from notice of intent (April-October)
- Hall County review/decision – Up to 180 days from SRC Report
- Permit package – submit 8 weeks from SRC Report
- Final facility and site design – spring 2017
- Construction – begin summer 2017
- Production – begin summer/fall 2018

Questions?

DETAILED HDS SCHEDULE

Item	Schedule Item/Month	Dates	Apr 16	May 16	Jun 16	Jul 16	Aug 16	Sep 16	Oct 16	Nov 16	Dec 16	Jan 17	Feb 17	Mar 17	Apr 17	May 17	Jun 17	Jul 17	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	
1	Contract Award	17 Oct 16																														
2	2)NCEQ Initial Contract for NDCA Permit	Apr 15-Mar 16																														
3	3)Submit Letter of Intent to NCEQ	Apr 16																														
4	4)NCEQ Chartered Specific Site Review Committee	Apr 16																														
5	5)Final Finding, Review, Report	Apr 16-Oct 16																														
6	6)Final County Review	May 16-Mar 17																														
7	7)NDCA Permit COI Public Meeting	Oct 16																														
8	8)NDCA Permit Application Preparation	Aug 16-Dec 16																														
9	9)NDCA Permit App. Review by NCEQ, with 2 Revision Round	Sep 16-Sep 17																														
10	10)Permit Drafting by NCEQ and Public Review	Oct 17-Sep 17																														
11	11)CD Plans and Submission Acceptance	Apr 16																														
12	12)NDCA Comair Samples Received for Testing	May 16																														
13	13)Air Emissions Testing (third-party lab)	May 16																														
14	14)Civil Design and Local Permitting	May 16-Dec 16																														
15	15)Process Final Equipment Design	Aug 16-Dec 16																														
16	16)Prepare NDCA Air Permit	May 16-Oct 16																														
17	17)Submit NDCA Air Permit and NDCA Review	May 16-Apr 17																														
18	18)Equipment Manufacture	Apr 17-Sep 17																														
19	19)NDCA Air Permit Approval	Apr 17																														
20	20)NDCA Site Construction - Site work and security system	Apr 17-Nov 17																														
21	21)NDCA Site Construction - Thermal Processing Unit	Apr 17-May 18																														
22	22)Equipment Arrive, Installation, and Commissioning	Apr 18-Mar 18																														
23	23)Start Testing	Apr 18-Mar 18																														
24	24)Training, Maint., and Safety/Security and O&M Approval	Apr 18-Nov 18																														
25	25)Phase Period Processing (2 months)	Apr 18-May 18																														
26	26)Operation Period 1 Processing (8 months)	Apr 18-Feb 20																														
27	27)Operation Period 2 Processing (8 months)	Apr 20-Nov 20																														
28	28)Completion Contract Order (Nov 18, 2018 forward)	17 Nov																														

Legend:

- Army Contracting
- NDCA TSP Permitting
- Air Quality Permitting
- Design and Equipment Fabrication
- Site Construction

Hexachloroethane Smoke

BACKGROUND INFORMATION

In this chapter, HCE refers to the compound hexachloroethane, and HC smoke is the term used by the military for smoke produced by combusting HCE with zinc oxide and producing zinc chloride.

Military Applications

HC smoke is used by the U.S. military in a wide variety of munitions, some of which are shown in Table 5-1. HC smoke is produced by burning a mixture containing roughly equal parts of HCE and ZnO and approximately 6% granular aluminum.

Combustion Products

The smoke mixture in a canister or grenade is initially ignited by a pyrotechnic starter mixture. The reaction is self-perpetuating and exothermic. The overall reaction was summarized by Cichowicz (1983):



Another reaction produces carbon monoxide instead of solid carbon. ZnCl_2 leaves the reaction zone as a hot vapor. On cooling below the condensation point, it nucleates to form an aerosol that rapidly absorbs water from the surrounding atmosphere. Hydrated ZnCl_2 particles then scatter light, thereby obscuring vision. Because of ZnCl_2 's affinity for water, the aerosol likely consists of the hydrated forms of ZnCl_2 under most atmospheric conditions (Katz et al. 1980). A starter mixture containing silicon, potassium nitrate, charcoal, iron oxide, granular aluminum, cellulose nitrate, and acetone, which is required to initiate the reaction, might generate very small amounts of other airborne contaminants. However, the acute toxic effects of exposure to HC smoke are considered to arise primarily from inhalation of the ZnCl_2 component, which comprises almost two thirds of the total mass of HC smoke (Table 5-2). All measurements of HC smoke are expressed in this chapter as milligrams of ZnCl_2 , unless noted otherwise.

The munitions listed in Table 5-1 all use slightly different chemical mixtures (Novak et al. 1987). An analysis of trace materials

TABLE 5-1 Characteristics of HC Smoke Munitions

Smoke-Pot Munitions ^a	Container Size (in.)	Filling Weight (lb)	Ignition Method	Weight (lb) (approx.) with Fuse	Delay Time (sec)	Burning Time (min)
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Smoke pot, HCE, 10-lb, M1	9 by 5.5 diameter	10	Matchhead and scratcher block or electrical	12.5	10	5-8
Smoke pot, HCE, 30-lb, ABC-M5	9.5 by 8.5 diameter	31	Matchhead and scratcher block or electrical	33	20-30	2-22
Smoke pot, floating, HCE, M4A2	13 by 12 diameter	27.5	M207A1 smoke-pot fuse	38	10-20	10-15
Smoke grenade, HCE, M8	4.75 by 2.5 diameter	1.2	M201A1 fuse	1.5	0.7-2 ^b	1.7-2.5
Cartridge, ^c 105-mm, HCE, M84A1		12.3	Mechanical, time, and super-quick fuse	13.0	60-90	3
Projectile, ^d 155-mm, HCE, M116A1		25.8	Mechanical, time, and super-quick fuse	26.2	60-90	4

^a All HC smokes are type C, which contains granular aluminum, hexachloroethane, and zinc oxide. Other types of HC smoke were used in the early years of smoke generation.

^b Time to functioning after release of safety lever.

^c No future production for the M84A1 was planned as of 1983.

^d M116A1 was completing its production life cycle in 1983 and would be replaced by XM 825 white phosphorus fill.

Source: Cichowicz (1983).

TABLE 5-2 Approximate Composition of HC Smoke^a

Constituent	Estimated Mass Fraction, %
Zinc chloride	62.5
<u>Zinc oxide</u>	9.6
Iron oxide ^b	10.7
Aluminum oxide ^b	5.4

Lead oxide ^b	1.0
Total particulate phase	89.2
Chlorinated vapors	10.8

^a The analysis does not take into account any liquid water that associates with ZnCl₂.

^b These metals were assumed to be present as the oxide for purposes of calculating the mass fraction.

Source: DeVaul et al. (1989)

in HC smoke mixtures found common zinc impurities (Katz et al., 1980). Arsenic ranged from 0.13 to 5.0 microgram per gram (µg/g), mercury from 0.35 to 0.60 µg/g, cadmium from 53 to 1,523 µg/g, and lead from 50 to 858 µg/g. The cadmium and lead concentrations displayed a strong negative correlation.

Physical and Chemical Properties of Zinc Chloride

CAS no.:	7646-85-7
Molecular formula:	ZnCl ₂
<u>Molecular weight:</u>	136.29
<u>Chemical name:</u>	<u>Zinc chloride</u>
Synonyms:	Butter of zinc, zinc butter, zinc
Physical state:	Solid
Melting point:	290°C
Boiling point:	732°C
Density:	2.907 at 25°C
<u>Vapor pressure:</u>	1 mm Hg at 428°C
Solubility:	4.32 × 10 ⁶ mg/L at 25°C
	6.15 × 10 ⁶ mg/L at 100°C
	1 g/1.3 mL <u>ethyl alcohol</u>
	1 g/2 mL glycerol
	1 g/0.25 mL 2% hydrochloroacetic acid

TABLE 5-3 Chemical Analysis of Vapor Reaction Products from Field Test of 30-lb Military HC Smoke Pot

Distance from Mount to Pot (cm)	CO (ppm)	HCl (ppm)	COCl ₂ (ppm)	CCl ₄ (ppm)	C ₂ Cl ₄ (ppm)	C ₂ Cl ₆ (ppm)	C ₆ Cl ₆ (ppm)
≈ 15	<1	1128	30	33	36	nd	nd
≈ 15	<1	1958	16	8	9	nd	nd
≈ 15	<1	5693	30	57	192	40	103
≈ 15	<1	6822	20	36	81	40	95
≈ 200	<1	1137	1	1	2	nd	nd

Abbreviation: nd, not determined.

Source: Katz et al. (1980).

Occurrence and Use

ZnCl₂ is used in preserving wood and in the manufacture and dyeing of fabrics. In addition to its use in military obscurants, ZnCl₂ is also the major ingredient in smoke from smoke bombs used for crowd dispersal and in fire-fighting exercises (by both military and civilian communities) (ASTDR 1994). ZnCl₂ also has uses in dental, medical, and household applications, as well as in herbicides (ATSDR 1994).

15.7.6 K866, ABC-M5 30-Pound HC Smoke Pot

15.7.6.1 Ordnance Description^{1,2}

The ABC-M5 30-Pound HC Smoke Pot (DODIC K866) is used to produce screening smoke for training exercises and demonstrations as well as during combat situations. Upon initiation, the smoke pot produces a dense white smoke cloud for 12 to 22 minutes.

The ABC-M5 30-Pound HC Smoke Pot consists of a cylindrical sheet-metal container filled with a Type-C, hexachloroethane (HC) smoke mixture. The smoke pot can be ignited either by remote electric ignition or by using an attached scratcher block to ignite a matchhead. After ignition of the matchhead the starter mixture is ignited which in turn ignites the HC filling.

15.7.6.2 Emissions And Controls¹⁻⁴

Particulate matter is the primary emission from the use of the ABC-M5 30-Pound HC Smoke Pot. Other criteria pollutants, hazardous air pollutants as defined by the *Clean Air Act* (CAA), and toxic chemicals (i.e. those chemicals regulated under Section 313 of the *Emergency Planning and Community Right to Know Act* [EPCRA]) are emitted at low levels. As this ordnance is typically used in the field, there are no controls associated with its use.

Table 15.7.6-1 presents emission factors for carbon dioxide (CO₂), criteria pollutants, total nonmethane hydrocarbons (TNMHC), and total suspended particulate (TSP). Table 15.7.6-2 presents emission factors for hazardous air pollutants and toxic chemicals. In both tables, the emission factors are presented in units of pounds of emissions per item (lb per item) and in units of pounds of emissions per pound net explosive weight contained in the item (lb per lb NEW).

TABLE 15.7.6-1 EMISSION FACTORS FOR THE USE OF DODIC K866,
ABC-M5 30-POUND HC SMOKE POT - CARBON DIOXIDE, CRITERIA POLLUTANTS, TOTAL
NONMETHANE HYDROCARBONS, AND TOTAL SUSPENDED PARTICULATE^a

EMISSION FACTOR RATING: A (except as noted)

CASRN ^b	Pollutant	lb per item	lb per lb NEW ^c
124-38-9	CO ₂	4.6 E-01	1.5 E-02
630-08-0	Carbon monoxide (CO) ^f	7.9 E-01	2.5 E-02
7439-92-1	Lead (Pb) ^g	2.4 E-02	7.9 E-04
--	Oxides of nitrogen (NO _x) ^f	2.6 E-03	8.4 E-05
--	PM-2.5 ^{d,f}	17	5.6 E-01
--	PM-10 ^e	32	1.0
7446-09-5	Sulfur dioxide (SO ₂) ^g	4.4 E-03	1.4 E-04
--	TNMHC ^g	1.7 E-02	5.4 E-04
12789-66-1	TSP	21	6.9 E-01

^a Factors represent uncontrolled emissions. References 1-4.

^b CASRN = Chemical Abstracts Service Registry Number.

^c NEW = net explosive weight. The NEW for this ordnance is 31.0 pounds per item. References 1 and 5.

^d PM-2.5 = particulate matter with an aerodynamic diameter equal to or less than 2.5 micrometers (µm).

^e PM-10 = particulate matter with an aerodynamic diameter equal to or less than 10 µm.

^f EMISSION FACTOR RATING B.

^g EMISSION FACTOR RATING C.

Table 15.7.6-2 EMISSION FACTORS FOR THE USE OF DODIC K866,
ABC-M5 30-POUND HC SMOKE POT -
HAZARDOUS AIR POLLUTANTS AND TOXIC CHEMICALS^a

EMISSION FACTOR RATING: C (except as noted)

CASRN ^b	Pollutant	lb per item	lb per lb NEW ^c
75-05-8	Acetonitrile ^d	3.1 E-04	1.0 E-05
7429-90-5	Aluminum ^{c,h}	1.6 E-01	5.1 E-03
7440-36-0	Antimony ^d	1.3 E-03	4.2 E-05
7440-38-2	Arsenic ^{d,h}	1.5 E-04	4.8 E-06
71-43-2	Benzene ^{d,g}	4.9 E-04	1.6 E-05
29082-74-4	Benzene, pentachloro(trichloroethenyl)- ^{e,h}	3.7 E-04	1.2 E-05
7440-43-9	Cadmium ^{d,h}	1.8 E-03	5.7 E-05
75-15-0	Carbon disulfide ^d	4.6 E-03	1.5 E-04
56-23-5	Carbon tetrachloride ^{d,h}	2.7 E-02	8.6 E-04
67-66-3	Chloroform ^d	1.4 E-03	4.4 E-05
74-87-3	Chloromethane ^{d,h}	5.4 E-04	1.7 E-05
7440-47-3	Chromium ^d	2.7 E-04	8.6 E-06
7440-50-8	Copper ^{c,h}	3.7 E-02	1.2 E-03
78-87-5	1,2-Dichloropropane ^{d,h}	1.4 E-04	4.4 E-06
121-14-2	2,4-Dinitrotoluene ^d	1.6 E-03	5.3 E-05
--	Total dioxin/furan compounds ^{d,g}	1.2 E-05	4.0 E-07
74-85-1	Ethylene ^e	6.7 E-04	2.2 E-05
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin ^{d,g}	1.5 E-08	4.9 E-10
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran ^{d,h}	1.5 E-06	4.8 E-08
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran ^{d,h}	1.7 E-07	5.6 E-09
118-74-1	Hexachlorobenzene ^d	2.1 E-02	6.9 E-04
87-68-3	Hexachlorobutadiene ^d	1.4 E-03	4.5 E-05
77-47-4	Hexachlorocyclopentadiene ^{d,h}	1.3 E-02	4.2 E-04
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin ^d	1.5 E-09	4.8 E-11
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin ^d	3.8 E-09	1.2 E-10
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin ^d	4.1 E-09	1.3 E-10
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran ^{d,h}	1.8 E-07	5.9 E-09
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran ^d	7.8 E-08	2.5 E-09
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran ^d	1.2 E-08	3.9 E-10
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran ^d	6.8 E-08	2.2 E-09

Table 15.7.6-2 (cont.)

CASRN ^b	Pollutant	lb per item	lb per lb NEW ^c
67-72-1	Hexachloroethane ^{d,h}	2.0 E-03	6.5 E-05
7647-01-0	Hydrochloric acid ^d	2.8 E-01	9.1 E-03
193-39-5	Indeno[1,2,3-cd]pyrene ^{d,h}	6.9 E-04	2.2 E-05
78-59-1	Isophorone ^{f,h}	5.5 E-03	1.8 E-04
7439-92-1	Lead ^d	2.4 E-02	7.9 E-04
7439-96-5	Manganese ^d	6.6 E-03	2.1 E-04
75-09-2	Methylene chloride ^{d,h}	7.0 E-04	2.3 E-05
2234-13-1	Naphthalene, octachloro- ^{c,h}	7.6 E-04	2.5 E-05
7440-02-0	Nickel ^{d,g}	3.4 E-04	1.1 E-05
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin ^{d,g}	5.3 E-08	1.7 E-09
39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran ^{d,h}	1.2 E-05	3.7 E-07
608-93-5	Pentachlorobenzene ^c	8.8 E-04	2.8 E-05
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin ^{d,g}	2.8 E-09	8.9 E-11
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran ^d	3.5 E-08	1.1 E-09
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran ^{d,h}	5.9 E-08	1.9 E-09
115-07-1	Propylene ^c	1.5 E-05	4.9 E-07
7440-22-4	Silver ^c	5.5 E-05	1.8 E-06
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin ^{d,g}	1.5 E-09	4.9 E-11
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran ^d	1.1 E-08	3.6 E-10
127-18-4	Tetrachloroethylene ^d	4.3 E-02	1.4 E-03
79-01-6	Trichloroethylene ^d	3.2 E-04	1.0 E-05
88-06-2	2,4,6-Trichlorophenol ^{d,h}	9.5 E-04	3.1 E-05
75-01-4	Vinyl chloride ^{d,g}	1.2 E-04	4.0 E-06
7440-66-6	Zinc ^c	9.5 E-02	3.1 E-03

^a Factors represent uncontrolled emissions. References 1-4.

^b CASRN = Chemical Abstracts Service Registry Number.

^c NEW = net explosive weight. The NEW for this ordnance is 31.0 pounds per item. References 1 and 5.

^d Reportable chemical under EPCRA Section 313 and a hazardous air pollutant under CAA Section 112(b).

^e Reportable chemical under EPCRA Section 313.

^f Hazardous air pollutant under CAA Section 112(b).

^g EMISSION FACTOR RATING B.

^h EMISSION FACTOR RATING D.

References For Section 15.7.6

1. *Sampling Results for AEC Phase VII Emission Characterization of Exploding Ordnance and Smoke/Pyrotechnics*, URS Group, Inc., Oak Ridge, TN, April 2007.
2. *Detailed Test Plan for Phase VII Emission Characterization of Exploding Ordnance and Smoke/Pyrotechnics*, West Desert Test Center, U.S. Army Dugway Proving Ground, UT, February 2005.
3. Supporting information including Excel spreadsheets supplied upon request by the U.S. Army Dugway Proving Ground test support contractor, URS Group, Inc., Oak Ridge, TN, August 2007.
4. *Background Document, Report on Revisions to 5th Edition AP-42 Chapter 15 - Ordnance Detonation, Emission Factors Developed Based on Phase VII Testing Conducted at Dugway Proving Ground, Utah*, MACTEC Federal Programs, Inc., Research Triangle Park, NC, June 2008.
5. *Munitions Items Disposition Action System (MIDAS) website*, <https://midas.dac.army.mil/>, U.S. Army Defense Ammunition Center, McAlester, OK, December 2007.

15.7.7 K867, M4A2 Floating Type HC Smoke Pot

15.7.7.1 Ordnance Description^{1,2}

The M4A2 Floating Type HC Smoke Pot (DODIC K867) is used to generate screening smoke when a floating source of smoke is required for river crossings and beach landings. It can also be used on land. Upon initiation, the smoke pot produces a dense white smoke cloud for 10 to 15 minutes. This ammunition is used during combat and on firing ranges during training.

The M4A2 Floating Type HC Smoke Pot consists of a 5-gallon metal pail with its lower third filled with a Type-C, hexachloroethane (HC) smoke mixture and fused with an M207A1 floating smoke pot fuse. When the fuze safety lever is released, the striker spring drives the striker which hits the primer. The primer ignites the firstfire charge, which, in turn, ignites the delay charge and subsequently the ignition charge. Flame from the ignition charge travels through the pot's igniter tube to ignite the starter mixture, which then ignites the HC smoke-mixture filling.

15.7.7.2 Emissions And Controls¹⁻⁴

Particulate matter is the primary emission from the use of the M4A2 Floating Type HC Smoke Pot. Other criteria pollutants, hazardous air pollutants as defined by the *Clean Air Act* (CAA), and toxic chemicals (i.e. those chemicals regulated under Section 313 of the *Emergency Planning and Community Right to Know Act* [EPCRA]) are emitted at low levels. As this ordnance is typically used in the field, there are no controls associated with its use.

Table 15.7.7-1 presents emission factors for carbon dioxide (CO₂), criteria pollutants, total nonmethane hydrocarbons (TNMHC), and total suspended particulate (TSP). Table 15.7.7-2 presents emission factors for hazardous air pollutants and toxic chemicals. In both tables, the emission factors are presented in units of pounds of emissions per item (lb per item) and in units of pounds of emissions per pound net explosive weight contained in the item (lb per lb NEW).

TABLE 15.7.7-1 EMISSION FACTORS FOR THE USE OF DODIC K867,
M4A2 FLOATING TYPE HC SMOKE POT - CARBON DIOXIDE, CRITERIA POLLUTANTS,
TOTAL NONMETHANE HYDROCARBONS, AND TOTAL SUSPENDED PARTICULATE^a

EMISSION FACTOR RATING: B (except as noted)

CASRN ^b	Pollutant	lb per item	lb per lb NEW ^c
124-38-9	CO ₂ ^f	5.3 E-01	1.9 E-02
630-08-0	Carbon monoxide (CO)	8.9 E-01	3.2 E-02
7439-92-1	Lead (Pb)	1.6 E-02	5.9 E-04
--	Oxides of nitrogen (NO _x)	2.8 E-03	1.0 E-04
--	PM-2.5 ^d	23	8.2 E-01
--	PM-10 ^{e,f}	30	1.1
7446-09-5	Sulfur dioxide (SO ₂) ^g	3.2 E-03	1.1 E-04
--	TNMHC	2.2 E-02	7.9 E-04
12789-66-1	TSP ^f	42	1.5

^a Factors represent uncontrolled emissions. References 1-4.

^b CASRN = Chemical Abstracts Service Registry Number.

^c NEW = net explosive weight. The NEW for this ordnance is 27.5 pounds per item. References 1 and 5.

^d PM-2.5 = particulate matter with an aerodynamic diameter equal to or less than 2.5 micrometers (μm).

^e PM-10 = particulate matter with an aerodynamic diameter equal to or less than 10 μm.

^f EMISSION FACTOR RATING A.

^g EMISSION FACTOR RATING C.

Table 15.7.7-2 EMISSION FACTORS FOR THE USE OF DODIC K867,
M4A2 FLOATING TYPE HC SMOKE POT -
HAZARDOUS AIR POLLUTANTS AND TOXIC CHEMICALS^a

EMISSION FACTOR RATING: C (except as noted)

CASRN ^b	Pollutant	lb per item	lb per lb NEW ^c
75-07-0	Acetaldehyde ^d	2.3E-04	8.2E-06
7429-90-5	Aluminum ^e	1.5E-01	5.3E-03
7440-38-2	Arsenic ^d	7.1E-06	2.6E-07
71-43-2	Benzene ^{d,g}	3.9E-04	1.4E-05
106-99-0	1,3-Butadiene ^d	1.0E-04	3.8E-06
7440-43-9	Cadmium ^d	5.4E-03	2.0E-04
75-15-0	Carbon disulfide ^d	9.7E-04	3.5E-05
56-23-5	Carbon tetrachloride ^d	1.1E-02	4.1E-04
67-66-3	Chloroform ^{d,g}	5.4E-04	2.0E-05
7440-47-3	Chromium ^{d,g}	1.6E-04	6.0E-06
7440-48-4	Cobalt ^d	1.3E-05	4.8E-07
7440-50-8	Copper ^e	2.3E-02	8.4E-04
--	Total dioxin/furan compounds ^{d,g}	4.1E-06	1.5E-07
74-85-1	Ethylene ^{e,g}	4.9E-04	1.8E-05
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin ^{d,g}	1.0E-08	3.8E-10
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran ^d	3.3E-07	1.2E-08
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran ^d	8.7E-08	3.2E-09
118-74-1	Hexachlorobenzene ^d	7.4E-02	2.7E-03
87-68-3	Hexachlorobutadiene ^d	1.5E-03	5.5E-05
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin ^{d,h}	8.4E-10	3.1E-11
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin ^d	1.5E-09	5.5E-11
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin ^d	1.9E-09	6.8E-11
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran ^d	1.0E-07	3.8E-09
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran ^{d,g}	5.7E-08	2.1E-09
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran ^{d,g}	1.2E-08	4.3E-10
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran ^{d,g}	3.6E-08	1.3E-09
7647-01-0	Hydrochloric acid ^d	4.5E-01	1.7E-02
7439-92-1	Lead ^{d,g}	1.6E-02	5.9E-04
7439-96-5	Manganese ^{d,g}	5.3E-03	1.9E-04
75-09-2	Methylene chloride ^d	4.2E-04	1.5E-05

Table 15.7.7-2 (cont.)

CASRN ^b	Pollutant	lb per item	lb per lb NEW ^c
7440-02-0	Nickel ^{d,h}	2.8E-04	1.0E-05
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin ^{d,g}	1.8E-08	6.6E-10
39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran ^d	3.7E-06	1.3E-07
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin ^{d,g}	2.0E-09	7.3E-11
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran ^d	4.0E-08	1.5E-09
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran ^d	3.5E-08	1.3E-09
7723-14-0	Phosphorus ^f	1.5E-03	5.3E-05
123-38-6	Propionaldehyde ^d	7.0E-05	2.6E-06
115-07-1	Propylene ^{c,g}	1.5E-04	5.5E-06
7782-49-2	Selenium ^{d,g}	2.9E-05	1.1E-06
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin ^{d,g}	8.3E-10	3.0E-11
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran ^d	2.1E-08	7.5E-10
127-18-4	Tetrachloroethylene ^d	7.9E-02	2.9E-03
108-88-3	Toluene ^{d,g}	2.0E-04	7.3E-06
79-01-6	Trichloroethylene ^{d,g}	3.7E-04	1.3E-05
75-01-4	Vinyl chloride ^{d,g}	2.2E-04	7.8E-06
75-35-4	Vinylidene chloride ^d	1.3E-04	4.6E-06
7440-66-6	Zinc ^c	11	3.9E-01

^a Factors represent uncontrolled emissions. References 1-4.

^b CASRN = Chemical Abstracts Service Registry Number.

^c NEW = net explosive weight. The NEW for this ordnance is 27.5 pounds per item. References 1 and 5.

^d Reportable chemical under EPCRA Section 313 and a hazardous air pollutant under CAA Section 112(b).

^e Reportable chemical under EPCRA Section 313.

^f Hazardous air pollutant under CAA Section 112(b).

^g EMISSION FACTOR RATING B.

^h EMISSION FACTOR RATING D.

References For Section 15.7.7

1. *Sampling Results for AEC Phase VII Emission Characterization of Exploding Ordnance and Smoke/Pyrotechnics*, URS Group, Inc., Oak Ridge, TN, April 2007.
2. *Detailed Test Plan for Phase VII Emission Characterization of Exploding Ordnance and Smoke/Pyrotechnics*, West Desert Test Center, U.S. Army Dugway Proving Ground, UT, February 2005.
3. Supporting information including Excel spreadsheets supplied upon request by the U.S. Army Dugway Proving Ground test support contractor, URS Group, Inc., Oak Ridge, TN, August 2007.

Hazardous Waste Site Review Committee Meeting Agenda & Minutes

June 21st, 2016

Hazardous Waste Site Review Committee Meeting

June 21, 2016, 3:45 PM

Alda Community Center

6410 W Highway 30, Alda, NE

Note: This meeting of the Hazardous Waste Site Review Committee will involve a site visit to the Heritage Disposal & Storage, LLC site. Because of the secure nature of the site, all Committee Members and members of the public will need to attend the site visit on a bus that will load from the Alda Community Center at 3:45 PM and leave at 4:00 PM. Members of the public will need to have government issued identification that will be processed at the site. The bus will return to the Alda Community Center at approximately 6:00 PM.

AGENDA

- I. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**
- II. Roll Call**
- III. Site Visit**
- IV. Comments and Adjourn**
 - A. Member Comments**
 - B. Public Comments**
 - C. Adjourn**

June 21, 2016, 04:00 PM CDT
6410 W Highway 30, Alda, NE 68810

I. Open Meeting Law Information

The Chair, John Turnbull, called the meeting to order at 04:10 PM Central Daylight Time. Chairman Turnbull verified public notice and availability of copy of law in the meeting location – NEB. REV. STAT. §§ 84-1407 THROUGH 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)

II. Roll Call of Appointed Hazardous Waste Site Review Committee

First Name	Last Name	Attendance
Teresa	Anderson	X
Greg	Baxter	X
Karen	Bredthauer	X
Chris	Exstrom	X
Alex	Harness	X
Brad	Kloss	X
Chad	Nabity	X
Dan	Purdy	X
Jon	Rosenlund	X
Casey	Sherlock	X
Timothy	Smith	X
John	Turnbull	X

All twelve appointed committee members were present. There were two members of the public present at the meeting. Others in attendance were Joe Francis from the Nebraska Department of Environmental Quality, Mark DeKraai from the University of Nebraska Public Policy Center, Mark Vess from Heritage Disposal and Storage, LLC.

III. Site Visit

Participants boarded a tour bus at 4:00 PM from the Alda Community Center. Participants were bused to Heritage Disposal and Storage, where they were given a tour of the facility. Due to lack of recording capability at the site, committee members were asked to remember their questions and raise these questions at the June 23rd meeting, at which the questions and answers will be recorded. Participants returned by bus to the Alda Community Center at approximately 6:00 PM

IV. Next Steps and Adjourn

A. Member Comments

There were no additional member comments

B. Public Comments

No public comments were made or proposed.

C. Adjourn

John Turnbull adjourned the meeting at 6:00 PM CDT

Hazardous Waste Site Review Committee Meeting Agenda & Minutes

June 23rd, 2016

Hazardous Waste Site Review Committee Meeting

June 23, 2016, 4:00 PM
Alda Community Center
6410 W Highway 30, Alda, NE

AGENDA

- I. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**
- II. Roll Call**
- III. Review and Approval of Meeting Minutes**
- IV. Review of Work**
 - A. Update notebooks**
 - B. Summary of Previous Meeting Feedback**
 - C. Review of the Agenda**
 - D. Review of Future Meeting/Work Schedule**
- V. Committee Comments and Questions**
 - A. Comments, Questions & Answers from Site Review Meeting**
 - B. Unanswered Questions/Clarifications from Previous Committee Meetings**
 - C. Heritage Presentation on Emergencies and Transportation**
 - 1. #7 Plans for responses to emergencies and for site security, qualifications, and training of personnel, and actions to be taken when there are operating problems.**
 - 2. #6 Transportation considerations such as methods to be used, waste containment during transport, the party responsible for transport, timing of arrivals, routing, and response plans in case of spills.**
 - D. Question and Answer from Heritage Presentation**
- VI. Next Steps and Adjourn**
 - A. Member Comments**
 - B. Meeting Feedback**
 - C. Summary of Next Steps**
 - D. Public Comments**
 - E. Adjourn**

June 23, 2016, 04:00 PM CDT
6410 W Highway 30, Alda, NE 68810

I. Open Meeting Law Information

The Chair, John Turnbull, called the meeting to order at 04:03 PM Central Daylight Time. Chairman Turnbull verified public notice and availability of copy of law in the meeting location – NEB. REV. STAT. §§ 84-1407 THROUGH 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)

II. Roll Call of Appointed Hazardous Waste Site Review Committee

Ten of the twelve appointed committee members were present. There were six members of the public present at the meeting.

First Name	Last Name	Attendance
Teresa	Anderson	X
Greg	Baxter	X
Karen	Bredthauer	X
Chris	Exstrom	
Alex	Harness	X
Brad	Kloss	X
Chad	Nabity	X
Dan	Purdy	X
Jon	Rosenlund	X
Casey	Sherlock	X
Timothy	Smith	
John	Turnbull	X

Others in attendance: Joe Francis, Mark DeKraai, Mark Vess, Dwight Miller, and Quinn Lewandowski.

III. Review and Approval of Meeting Minutes

Chad Nabity made a motion to approve the May 24, 2016 meeting minutes. The motion was seconded by Casey Sherlock; the motion passed by roll call vote with no abstaining votes and no dissensions. Committee member Greg Baxter was absent at the time of this vote.

- **Yea:** Anderson, Bredthauer, Harness, Kloss, Nabity, Purdy, Rosenlund, Sherlock, and Turnbull
- **Nay:** None
- **Abstentions:** None

Chad Nabity made a motion to approve the June 21, 2016 meeting minutes. The motion was seconded by Brad Kloss; the motion passed by roll call vote with no abstaining votes and no dissensions. Committee member Greg Baxter was absent at the time of this vote.

- **Yea:** Anderson, Bredthauer, Harness, Kloss, Nabity, Purdy, Rosenlund, Sherlock, and Turnbull
- **Nay:** None
- **Abstentions:** None

IV. Review of Work

A. Review of Agenda

Due to Mark Vess of Heritage having to leave the meeting early, the agenda items the “Summary of Previous Meeting Feedback” and “Review of Future Meeting/Work Schedule” would be moved towards the end of the meeting. This agenda change was unanimously approved with no dissensions.

B. Summary of Previous Meeting Feedback

Mark DeKraai led a brief review of the feedback received at the meeting on May 24th. The survey measured the committee’s responses via a Likert Scale and open comment boxes. Most of the meeting review questions measured achieved an average rating of “Excellent” to “Very Good.” Results of the meeting feedback survey are included in the following table:

May Meeting Feedback Questions & Comments		Rating
1. How useful was development of Procedural and Ground Rules?		1.64*
<ul style="list-style-type: none"> • more participation from all committee members • Good • it worked well 		
2. How useful was the development of future meetings and topic framework?		1.64
<ul style="list-style-type: none"> • system utilized was excellent 		
3. How well was Heritage explanation of functions of the facility, management processes, wastes to be handled and plans for future expansion?		1.91
<ul style="list-style-type: none"> • Time. It will be very difficult to explain all details to us in the short amount of time that we have, but they do as good as can be expected • will have better understanding when more of the testing is done • It will be more clear when we visit • NA. • It is all a little nebulous. the presentation mixed lbs. + tons and could have been consistent • Shorten explanations and stay focused on the current issues. No need for a long discussion on airbags. • I felt that a lot of the questions I had were brought up by others and Mark was able to clarify some of the information that was presented • Consisted of a considerable amount of speculation and unknowns due to process research uncertainty. This was explained well and will lead to better understanding of most efficient processes but at this time leaves a lot of room for changes 		
4. How well was Heritage explanation of technology used and why, plans for quality control, reliability of technology, sequence of steps from generation of waste to post-closure of facility?		1.82
<ul style="list-style-type: none"> • Didn't hear about post-closure • still cloudy as many steps are in the planning phase • NA. 		

<ul style="list-style-type: none"> • More specifics about the technology equipment + DTS functions would help me evaluate if all bases are being covered 	
5. How well was Heritage explanation of ground water protection, air emissions, and other factors related to environmental quality?	2.18
<ul style="list-style-type: none"> • Perhaps addressing potential health issues that history has shown to exist from exposure - human -animal • I would have liked to see more site specific info. Flood plain was mentioned but high ground water was not. • More details and less uncertainty • More specifics about the technology equipment + DTS functions would help me evaluate if all bases are being covered 	
6. What were the major strengths of today's meeting?	
<ul style="list-style-type: none"> • Good Information • Learning about the process • ~within 2 hr window • Flowed well. The committee has folks with a variety of strengths, knowledge, experience • It was on time and on target • A good start • John kept meeting on track and moving along • Ran more smoothly, better directed. clear plans set for next couple of meetings 	
7. What else could have improved the meeting?	
<ul style="list-style-type: none"> • maybe 1 break • Beverage 	

*Ratings were from 1=excellent to 5=terrible

C. Update Notebooks

Joe Francis worked with committee members to update their notebooks.

D. Review of Future Meetings/Work Schedule

1. The next meeting will take place July 19th at 4:00 PM CDT – location to be determined. The next meeting will cover:
 - a. Factor #1 - Economic Considerations.
 - b. Factor #8 – Enforcement and Regulation – Both Heritage and DEQ perspectives
 - c. Issues and concerns across all eight areas
2. The University of Nebraska Public Policy Center will send out a scheduling poll to determine meeting dates for August and September.
3. The facilitator will develop a draft report for distribution prior to the August meeting for member review. A modified draft report will be distributed prior to the September meeting for member review.

V. Committee Comments and Questions

A. Comments, Questions & Answers from Site Review Meeting

Mark Vess from Heritage provided answers to questions from committee members

Chris Exstrom's email written to the committee (Chris was unable to attend the 6/23/16 meeting) – “Let me start by sharing my understanding of the HC smoke detonation chemistry because it is important to keep in mind when discussing emergency responses. HC is a chlorine-containing hydrocarbon compound. It's a definite environmental hazard and there are indications in mice that it may be carcinogenic. However, in a smoke pot, HC is mixed with aluminum and zinc oxide. When the pot is detonated, the HC breaks apart and the chlorine in it reacts with the zinc oxide to form zinc chloride particles that are very small - think of it as very fine white soot. In this form, the zinc chloride combines with water vapor to form the "smoke".

We already have the first couple of pages from this National Academy of Sciences report in our supplementary material. <http://www.nap.edu/read/5582/chapter/7>

If you read further into the document, it has been shown that the HC breaks down within about 10 yards of detonation. Therefore the major environmental contaminant to be concerned about in the event of an uncontrolled smoke pot detonation is the zinc chloride.

In and of itself, zinc chloride has minimal hazardous qualities, but in the "smoke" form, the particles have a corrosive property, enough to at least irritate skin and do some damage to eye and lung tissue, depending on the level of exposure.

The remoteness of the Heritage site is an advantage as any released zinc chloride smoke would diffuse, becoming lower in concentration, before reaching significantly populated areas. I'm sure that part of DEQ's technical analysis will include estimates of exposure levels and effects in the event of a pallet load or truckload of smoke pots detonating at once, but at this point, my sense is that if the county has an emergency response plan to handle an accidental release of a toxic or corrosive gas - say ammonia or chlorine from a derailed train car - then that will be more than enough to handle an uncontrolled zinc chloride smoke release.

In the rotary kiln, the temperatures are too high for water vapor to exist, so the zinc chloride won't form smoke but it will be important for the exhaust scrubbers to be able to trap the zinc chloride along with the other vapor-phase side products produced.

I would ask about what suppression/containment precautions are going to be planned for and incorporated into the new building. Potential issues - although all may be very unlikely - could be an uncontrolled zinc chloride smoke release, problems with the kiln heating system, or other kiln malfunctions. I was impressed with the subfloor secondary containment design in the hydrolysis building. Would a similar thing be useful in the kiln building? The reason I ask is that if I had to put out a zinc chloride smoke, my first thought would be to douse it with as much water as I could. The zinc chloride particles would dissolve in the extra water and . . . no more smoke.”

DEQ will look at issues in modeling under RCRA review and air permits.

Heritage appreciates the comments and questions by Chris Exstrom and will develop water deluge systems to respond to a situation in which there is an incident with large smoke release.

Are there plans for retrofitting a fire suppression system into the receiving building and the new building?

There will be fire suppression systems in all of the new plant. Heritage will need to look at the logistics of retrofitting a deluge system in the shipping and receiving facility because there is no water by the

receiving building. With the construction, they will look at ways to bring water to that area to allow the installation of a fire suppression system in the receiving area.

Will the receiving building have the capacity and capability to hold the supply of munitions being unloaded, and yet still allow for the organization to have the separated out?

With the handling of explosive materials the general rule is you expose the minimum amount of material to a minimal amount of people in the minimal amount of time. Heritage will bring one semi-trailer to the building at a time to utilize space to unload the materials and do a safety inspection in one area. If materials need to be repackaged they would be reconfigured in another area of the building and placed into another semi-trailer for outgoing storage. During the unloading process, Heritage will utilize the trailers, the doors on the trailers, and space in the facility to process the material safely in an orderly fashion with an efficient flow.

Do you have an idea how much the Army will ship to Heritage on a regular daily/weekly basis?

Heritage will let the Army know that the optimal receiving number for Heritage is no more than four trucks a day to offload. Those four trucks would provide about 160,000 lbs. of materials to process. During the two to three months before the beginning of processing by the thermal treatment unit the Army will begin sending trucks of materials for storage for later processing. After the plant is up and running the Army will only send about four to five semi-trailer loads per week.

The rail within Heritage is currently dated. Do you anticipate any shipping by rail?

The Army is not anticipating any rail delivery with this particular contract. Heritage's rail could handle a very limited rail delivery. The rail would need to be modernized to better handle the weight of shipments, the turns the rail would have, etc. Mark Vess stated that he and his business partner are exploring some avenues to help fund the possible future modernization of the rail such as a government sponsored program.

At the end of the processing cycle with the zinc chloride remaining, it is somewhat acidic. Is your plan to dilute that with water?

This is part of the process engineering that goes into the air pollution control (APC). Heritage would like to process engineer to maximize the zinc chloride to be recovered for recycling, because it is such a valuable product. Heritage's background has been to create the safest and best way to do things, and with many explosive materials being made of natural products the goal would be to safely reclaim and recycle as much of the products as possible. Hazen Research, Inc. will be testing and designing the best process to recycle these marketable materials, reduce any hazardous waste produced, all while providing the most exemplary environmentally friendly processing.

Do you have training plans for the 60-70 people that you plan to hire to help meet the needs of this contract?

Heritage has written standard operating procedures (SOP) and training plans for all positions. The one thing Heritage does not have in place is the hazard safety analysis for each new position. As part of the Army contract process, after they get all the manuals for the new equipment and engineering information for the equipment, Heritage will go through all the life safety codes for all the buildings and all the safety apparatuses. All the confined spaces will be identified; the lockout/tag-out procedures for every step will be identified; and information on how to shut everything down will be supplied. The employees at Heritage have an extensive training list. The employees have 24 or 40 hours of hazmat training depending on what position they are in; all the supervisors have eight hours of supervisor

training; all the employees have annual 24 hours of refresher trainings; they have three day training assessments; all are trained on forklifts; all are first-aid and blood borne pathogen certified; all receive fire suppression and extinguisher training, emergency procedures training, and many other trainings. Heritage trains their employees a lot and frequently. Heritage also conducts a documented safety briefing each day where they document each task and go over every safety precaution for that task. Heritage employees are also briefed on the weather hour by hour and they monitor static electricity, storms, etc. The training manual that the army has examined as a part of this process is at least 2,000 pages long.

What is the extent of the Incident Command System (ICS) training? Should there be a release, would they be responding as a team? Would you have the capability and technical expertise to merge into the fire department or other entities to respond to an incident?

Mark Vess is one of the original EPA certified hazmat instructors for the U.S. Airforce. Mark is trained and certified as an instructor for incident command system, and is a certified National Fire Academy instructor for all things hazmat. Mark utilizes all of that background to train all of the employees himself.

What level of hazmat incident command training will the employees have?

They are trained at least to technician level. Heritage's management, their safety people, their chief of security are incident commander trained as well as incident management trained. The Heritage staff during an incident would interact with the chief or whoever is assuming command, and take action until they arrive and the responders would take over and the Heritage staff would brief the command on the incident and provide support as needed.

In the hydrolysis process, are the bugs sensitive to salts?

The contractors utilized this methodology to inject the anaerobic amendment material into the ground and it destroys all the explosive contamination and the source of the contamination produced during the production years at the plant.

Is HC material a candidate for hydrolysis?

No, it is not. The government has selected the best method. There is a requirement in the contract for RCRA approved thermal treatment process to dispose of the HC material.

Who has the storage regulations?

Within the State of Nebraska there are explosive storage regulations and licenses that the State Patrol handles. There are licenses to store materials, purchase materials, and those combine to create a business license. On the federal level, Heritage has a manufacturing license with the ATF that allows them to store, use, and chemically alter any explosive compound as part of their processes. Storage requirements, the State of Nebraska and the ATF, borrowed a lot of requirements that are DoD regulations based on its expertise with explosive materials. Heritage has to comply with all of their standards.

Does the whole unit go through the thermal treatment, and then you separate the metal?

Yes

Where does the water go from the washing of the canisters?

That is all inside of the facility, and all that water will go into indoor storage tanks. That water will then be fed back into the closed loop system. There will be some waste water, but that will be treated and go out to an evaporation pond.

Besides HC, is there a certain amount of residual/other solids that will be recycled/repurposed?

Three main things will be repurposed. They will be able to recycle all of the metal which makes up about 45-48% of the weight. There is the thermal process, that will produce the heavy ash that will fall out with the metal and will be recycled if it is clean, and there is also the fly ash that will be collected by the APCs. The ash will make up another 40% of that weight. Metals will be certified clean before they are recycled.

B. Unanswered Questions/Clarifications from Previous Committee Meetings

I'm still not sure what will eventually get approved, this site for the processing of HC or this site for various chemicals?

This process is about approving this site to manage hazardous waste. Before Heritage could process anything other than HC, anything new must pass all standards before it could be certified. The committee is approving a hazardous waste facility, and it could encompass more than HC. If there are any changes to the permit the public will be able to comment.

C. Heritage Presentation on Emergencies and Transportation

Dwight Miller from Parametrix presented information for Heritage and answered questions during and after the presentation; Mark Vess was not able to attend the remainder of the meeting.

Factor #7 - Plans for responses to emergencies and for site security, qualifications, and training of personnel, and actions to be taken when there are operating problems.

1. Emergencies response and site security plans

- a. Extensive plans are required by the U.S. Army
- b. Ammunition & Explosives (A&E) Safety Program Plan
- c. Current site security plan follows the ATF and the new plan will now include US Army protocols as well
- d. Corporate Safety and Health Plan is a standard plan in place for any corporate organization, and Heritage's plan will continue to be edited as the other plans are developed and added. It will likely refer even more back to the other plans.
- e. Personnel Responsible for Safety and Security
 - Fred MrVicka, Safety Officer
 - James Milby, Explosive Safety Officer
 - Mark Vess, President

2. Emergency Preparedness

- a. Protocol for localized and facility-wide emergency response
- b. Internal radio communications
- c. Fire prevention – Bunkers currently meet separation needs for the materials they are holding

- d. First aid stations/training – Set for today’s operation and will be expanded to cover the new facilities
- e. Heritage plans to conduct onsite training with fire departments
- f. Active spill prevention and cleanup protocols under NPDES (National Pollution Discharge Elimination System) - It is part of those spill prevention protocol

3. Actions to be taken when there are operating problems

- a. Safety and emergency response is designed into processes and equipment. They are not expecting the materials that they are handling to have a high energetic nature.
- b. Process override and emergency shutdown – Especially in relation to the rotary kiln, there is protocol for bringing that up and down in temperature in a safe way that will not damage the equipment. It is a part of the operations plan, and a lot of that will be referred to in emergency response plans.
- c. Operations Plan and manuals
- d. Actions are led by Operations Manager or designated trained staff – Heritage does not have untrained staff in charge of the operation. These are highly technical and expensive pieces of equipment.
- e. Operating engineers will be on-call to support site staff at a minimum for troubleshooting of issues. Operating engineers are there only for an operating standpoint, but obviously an emergency takes precedence.

Factor #6 Transportation considerations such as methods to be used, waste containment during transport, the party responsible for transport, timing of arrivals, routing, and response plans in case of spills.

1. Means of Transport

- a. All delivery will be by semi-truck/trailer (GPS tracked and alarmed)
- b. Delivered by Army contract carrier
- c. Fully licensed for explosives transport under Army oversight
- d. Heritage responsibility starts at the gate.
- e. Materials shipped as “product” in original containment

2. Timing of arrivals and routing

- a. Average of one truck/day (routine operations)
- b. Peak deliveries of four trucks/day (initial)
- c. Deliveries during regular working hours
- d. Delivery would be avoided during inclement weather and typical inclement weather months
- e. Heritage’s storage capability allows for more efficient deliveries
- f. Trucks will arrive from I-80 via Alda Road and Old Potash Highway and to the facility
- g. Not much transport by rail. It could be a means to transport to the site. It is assumed that it is going to be almost all truck transportation.

3. Response plans for spills during transport

- a. Army contract carriers have spill plans and retain third-party spill response services
- b. Follow transport regulations under USDOT
- c. Local emergency responders will be briefed on routes and material types

D. Question and Answer from Heritage Presentation

Is this machine being used in other types of businesses? Have they had any safety issues?

Rotary kilns have been a common way to make cement, so there is a lot of history using this equipment. Many rotary kilns are also used in the disposal of hazardous waste. Equipment manufacturers put together an operating manual that helps develop the operating procedure that lays out how to prevent any safety issues.

How much HC materials does the Army have in surplus? Will there be future contracts available after this 5 year trial?

This contract will process about 20-23 million pounds of HC materials. The Army has about 800 million to one billion pounds of this material to dispose of that is sitting in depots across the U.S.

-I would like to see a list of the level of training for each level of staff (current and future) and the specific courses and certifications they need to earn and maintain. I would like to see Heritage make sure the local response teams have what they need. Also, I would like to see Heritage be an active participant in the local LEPC.

With whom are emergency response plans shared with?

Heritage plans to work with local emergency management to ensure an appropriate response in case of an incident. There needs to be coordination between local responders and the facility. It is proposed to have a sit-down meeting between the facility and local emergency management.

Is this HC of reportable quantities for Tier II forms?

NDEQ believes HC is not reportable under Tier II but is still looking into this issue.

Are there any types of bonding requirements for an operation such as this? Is there a succession plan in case something happens to person as involved in the process such as Mark Vess?

This is the type of issue that will be raised in the next meeting as the committee discusses issues, concerns and recommendations.

Will employees be hired locally or brought in? How many employees will there be and does the local community have a sufficient pool of employees for this operation?

These are the types of issues that will be addressed under #1 Economic Considerations during the next meeting.

VI. Next Steps and Adjourn

A. Member Comments

There were no additional member comments.

B. Meeting Feedback

Today's meeting helped clarify questions. The committee continues to stay organized and cover topics on the agenda. Only possible improvements would be a short five minute breaks during the meeting.

C. Summary of Next Steps

1. Since the Grand Island Public Library is not available, the next meeting will take place July 19th at 4:00 PM CDT at the Alda Community Center. The next meeting will cover:
 - a. Factor #1 - Economic Considerations
 - b. Factor #8 – Enforcement and Regulation – Both Heritage and NDEQ perspectives
2. Committee members will review all eight factors, and identify the main thoughts and recommendations. The statute also talks about concerns and issues; members are encouraged to bring those to the next meeting. As we start developing a report, the committee will share their conclusions. After that point, Mark DeKraai will have enough to develop a rough draft of the report.
3. The University of Nebraska Public Policy Center will send out a scheduling poll to determine meeting dates for August and September. Members are encouraged to respond promptly to the poll, as they have done in the past.

D. Public Comments

No public comments were made.

E. Adjourn

John Turnbull adjourned the meeting at 5:43 PM CDT

Hazardous Waste Site Review Committee Meeting Presentation
Materials and Handouts

June 23rd, 2016



HDS Facility Expansion Site Review Committee

HERITAGE DISPOSAL & STORAGE, LLC

DWIGHT MILLER, PARAMETRIX

MARK VESS, HDS

June 23, 2016

PRESENTATION OUTLINE



1. Factors considered in this presentation
2. #7 Emergency Response
3. #6 Transportation Implications
4. Q&A

FACTORS BEING DISCUSSED

#7 Emergency Response

#6 Transportation Implications

Related Factors:

#2 The function and management of the facility

#5 Environmental implications

#8 Enforcement and regulation

#7 EMERGENCY RESPONSE

- Emergency response plans
- Site security plans
- Qualifications and training of personnel
- Actions to be taken when there are operating problems

EMERGENCIES RESPONSE AND SITE SECURITY PLANS

- Plans required by US Army
- Ammunition & Explosives (A&E) Safety Program Plan
- Site security plan follows ATF and US Army protocol
- Corporate Safety and Health Plan
- Personnel Responsible for Safety and Security
 - Fred MrVicka, Safety Officer
 - James Milby, Explosive Safety
 - Mark Vess, President

EMERGENCY PREPAREDNESS

- Protocol for localized and facility-wide emergency response
- Internal radio communications
- Fire prevention
- First aid stations/training
- Onsite training with fire department
- Active spill prevention and cleanup protocols under NPDES

ACTIONS TO BE TAKEN WHEN THERE ARE OPERATING PROBLEMS

- Safety and emergency response designed into processes and equipment
- Process override and emergency shutdown
- Operations Plan and manuals
- Actions led by Operations Manager or designated trained staff
- Operating engineers on-call to support site staff

#6 TRANSPORTATION IMPLICATIONS

- Transport to be used
- Waste containment during transport
- The party responsible for transport
- Timing of arrivals and routing
- Response plans in case of spills during transport

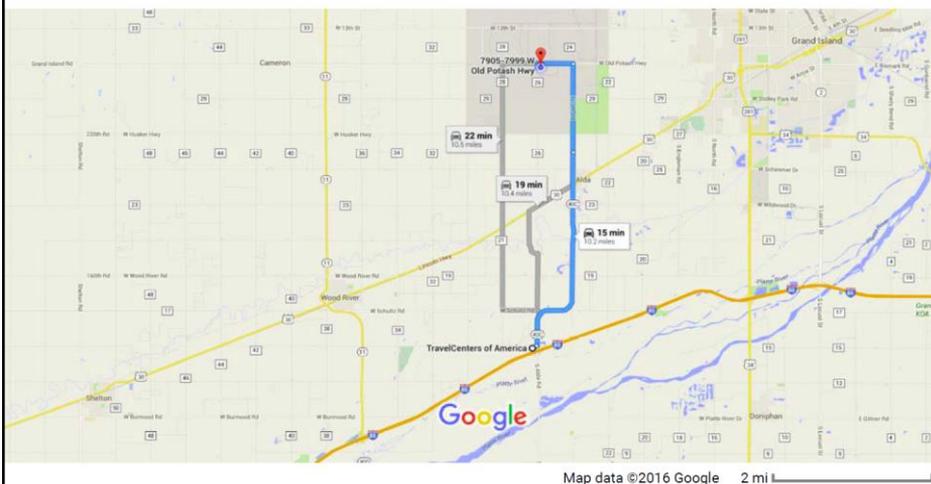
MEANS OF TRANSPORT

- All delivery by semi truck/trailer (GPS tracked and alarmed)
- Delivered by Army contract carrier
- Fully licensed for explosives transport under Army oversight
- Heritage responsibility starts at gate
- Materials shipped as 'product' in original containment

TIMING OF ARRIVALS AND ROUTING

- Average of one truck/day (routine operations)
- Peak deliveries of four trucks/day (initial)
- Deliveries during regular working hours
- Storage allows fewer deliveries
- Trucks will arrive from I-80 via Alda Road and Old Potash Highway

ROUTES FROM I-80 EXIT 305



RESPONSE PLANS FOR SPILLS DURING TRANSPORT

- Army contract carriers have spill plans and retain third-party spill response services
- Follow transport regulations under USDOT
- Local emergency responders will be briefed on routes and material types

FACTORS DISCUSSED

#7 Emergency Response

#6 Transportation Implications

Related Factors:

#2 The function and management of the facility

#5 Environmental implications

#8 Enforcement and regulation

Questions?

Scott, Tricia

From: Francis, Joe
Sent: Friday, June 10, 2016 6:09 PM
To: Christopher L Exstrom; Alex Harness; Brad Kloss; Hall County Hwy Supt - Sherlock; Chad Nability; Dan Purdy; Greg Baxter; John Turnbull; Jon Rosenlund; Karen Bredthauer; Mark B Dekraai; Teresa Anderson; Timothy Smith
Cc: O'Connor, Tom; Scott, Tricia
Subject: RE: alternative technologies - Cease Fire Campaign

Chris and all,

Sorry for the delay in responding, I've had a week of vacation. We are going to open a section in the blue notebooks for any written public input we receive. This document will be filed there; we will bring hard copies to the June 23rd meeting. The Open Meetings Act is not a concern in this issue.

Thanks--

Joe Francis
Associate Director
Field Services and Assistance
Nebraska Dept. of Environmental Quality
402/471-6087

From: Christopher L Exstrom [<mailto:exstromc@unk.edu>]
Sent: Friday, June 03, 2016 11:10 AM
To: Alex Harness; Brad Kloss; Hall County Hwy Supt - Sherlock; Chad Nability; Dan Purdy; Francis, Joe; Greg Baxter; John Turnbull; Jon Rosenlund; Karen Bredthauer; Mark B Dekraai; Teresa Anderson; Timothy Smith
Subject: FW: alternative technologies - Cease Fire Campaign

Everyone,

I received this e-mail earlier in the week and wanted to pass along this information. I thanked Ms. Olah for the information and directed her to our committee's DEQ website for more information on what we're doing. I assume that we can handle these individual contacts without violating any open meeting laws. Joe and Mark, let us know if there is anything we need to be careful of in this regard.

Thanks,
Chris

Christopher L. Exstrom

Professor of Chemistry
Director, Science/Math Education M.S.Ed. Program
University of Nebraska at Kearney
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Fax: (308) 865-8399

From: Laura Olah [<mailto:info@cswab.org>]
Sent: Tuesday, May 31, 2016 10:22 AM
To: Christopher L Exstrom <exstromc@unk.edu>
Subject: alternative technologies - Cease Fire Campaign

Dear Dr. Exstrom,

I read the recent [article](#) about the proposed hazardous waste incinerator at the former Cornhusker Army Ammunition Plant and found you listed there.

I am a community activist that has worked on military toxics issues for more than 25 years. This is work that found me as I live near the Badger Army Ammunition Plant in Wisconsin and our local environment has been profoundly damaged by historical activities at this site.

I am currently coordinating a [national campaign](#) calling for safer alternatives to open air burning, detonation and incineration of hazardous waste munitions and munitions-contaminated wastes. Already, more than 50 organizations, including environmental health, labor, and veterans service organizations, have endorsed our goal statement.

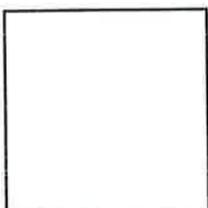
As the chemist on the local panel, I thought you the most likely to be interested in [alternative technologies](#) that do not have the inherent problems and risks associated with incineration.

I'm sending this email by way of introduction and I am hoping that this information is of interest and that we might talk by phone.

Thank you for your time and consideration!

Laura

Laura Olah, Executive Director
Citizens for Safe Water Around Badger (CSWAB)
Coordinator, Cease Fire Campaign
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www.facebook.com/cswab.org
<http://cswab.org/resources/cease-fire-campaign>



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CEASE FIRE Campaign

A Grassroots Campaign to End Burning & Incineration of Waste Munitions



The CEASE FIRE campaign seeks to protect human health and the environment by calling for the immediate implementation of safer alternatives to open air burning, detonation and non-closed loop incineration/combustion of military munitions. These alternatives must incentivize waste prevention and recycling; prevent, to the greatest possible extent, the release of toxic emissions and pollutants; and advance the principles of environmental justice by assuring that all people enjoy the same degree of protection and access to the decision-making process.

SIGN THE PETITION

Participating organizations

- [Alaska Community Action on Toxics](#)
- [Blue Ridge Environmental Defense League](#)
- [California Communities Against Toxics](#)
- [California Safe Schools](#)
- [Camp Lejeune Community Assistance Panel](#)
- [Center for Health, Environment & Justice](#)
- [Center for Public Environmental Oversight](#)
- [Central Trades & Labor Council of Shreveport and Vicinity, AFL-CIO](#)
- [Citizen Action New Mexico](#)
- [Citizens for Safe Water Around Badger](#)
- [Citizens Task Force](#)
- [CORALations](#)
- [Crawford Stewardship Project](#)
- [Defense Depot Memphis Tennessee Concerned Citizen Committee](#)
- [Environmental Patriots of the New River Valley](#)
- [Environmentalists Against War](#)
- [Florida Veterans for Common Sense](#)
- [Food and Water Watch](#)
- [Fort Ord Community Advisory Group \(FOCAG\)](#)
- [Frederick Citizens for Bio-lab Safety](#)
- [Friends United for a Safe Environment \(FUSE, Inc.\)](#)
- [GAIA \(Global Alliance for Incinerator Alternatives\)](#)
- [Greenaction for Health and Environmental Justice](#)

Alternatives to Burning

Ending Open Air Burning, Detonation and
Incineration of Hazardous Waste Explosives

The Military is the largest generator of toxic waste in the United States.¹ The Government Accountability Office estimates that 557,000 tons of old surplus munitions will need to be disposed of over the next few years.² Many of the ingredients in these munitions are dangerous to human health, causing cancer, birth defects, reproductive problems, and other health problems.³ We have a responsibility to ensure that these waste munitions are destroyed without releasing toxic chemicals into the environment.

The military has tried many methods to destroy old munitions. After World War I and until 1970, the United States, like many other countries, routinely dumped its chemical weapons into the ocean.⁴ Open burning or open detonation of conventional munitions has long been the preferred disposal method. However, the legislation on hazardous waste (Resource Conservation and Recovery Act) outlaws the open burning of hazardous waste, with an exception for military explosive waste for which there is no alternative disposal method. In the past the military has opened burned chemical weapons. The military has also burned both chemical weapons and conventional munitions in incinerators.

What's wrong with burning?

When hazardous waste is burned either through open burning/open detonation or with an incinerator, not all of the hazardous material is destroyed. Some of hazardous chemicals go into the air and disperse into the environment, contaminating soil and water and affecting human health. Some of the hazardous material remains in the ash and must be disposed of in a hazardous waste landfill. Even worse, as the hot gases cool, new chemicals called *Products of Incomplete Combustion* form and are dispersed into the environment; some of these new chemicals are even more dangerous and persistent in the environment than the original hazardous material.⁵

Are there alternatives?

Advanced treatment technologies to disposal of military munitions have been available for several years. Thanks to the hard work of communities across the country who opposed the incineration of chemical weapons in their communities, the United States has invested hundreds millions of dollars⁶ in researching and developing new technologies that are much safer and are able to destroy military hazardous waste more effectively, without creating new dangerous chemicals and releasing them to the environment.

(over >)

**Cease Fire Campaign
PARTICIPATING
ORGANIZATIONS**

Alaska Community Action on Toxics
Blue Ridge Environmental Defense League
California Communities Against Toxics
California Safe Schools
Camp Lejeune Community Assistance Panel
Center for Health, Environment & Justice
Center for Public Environmental Oversight
Central Trades & Labor Council of Shreveport and Vicinity, AFL-CIO
Citizen Action New Mexico
Citizens for Safe Water Around Badger
Citizens Task Force
Crawford Stewardship Project
Defense Depot Memphis Tennessee
Concerned Citizen Committee
Environmental Patriots of the New River Valley
Environmentalists Against War
Food and Water Watch
Fort Ord Community Advisory Group (FOCAG)
Frederick Citizens for Bio-lab Safety
Friends United for a Safe Environment (FUSE, Inc.)
GAIA (Global Alliance for Incinerator Alternatives)
Greenaction for Health and Environmental Justice
Hoosier Chapter of the Sierra Club
International Dialogue on Underwater Munitions
Kentucky Environmental Foundation
Louisiana Bucket Brigade
Louisiana Environmental Action Network
Louisiana Progress Action
Lower Mississippi Riverkeeper
Midwest Environmental Advocates
Midwest Environmental Justice Organization
Moms Clean Air Force Tennessee
Moms Clean Air Force Virginia
Nukewatch/The Progressive Foundation
Peaceful Skies Coalition
Philadelphia Right To Know Committee
Physicians for Social Responsibility-WI
Protect All Children's Environment
Sierra Club (national)
Tennessee AFL-CIO Labor Council
Tewa Women United
Texas Campaign for the Environment
Tribal Environmental Watch Alliance
Veterans for Common Sense
Vidas Viequenses Valen
Virginia Chapter Sierra Club
Valley Watch
Voluntary Cleanup Advisory Board
Volunteers for Environmental Health and Justice
Watauga Group of the Tennessee Chapter Sierra Club
Waukesha County Environmental Action League
Wisconsin Environmental Health Network

CEASE FIRE Campaign

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PHONE 608/543-3124

FACEBOOK

[www.facebook.com/
CeaseFireCampaign](http://www.facebook.com/CeaseFireCampaign)

WEBSITE

[www.cswab.org/resources/
cease-fire-campaign](http://www.cswab.org/resources/cease-fire-campaign)

Examples of Safer Alternatives

Gas Phase Chemical Reduction

Gas Phase Chemical Reduction uses hydrogen and heat to break down toxic chemicals into their basic components. Because hydrogen is used for the reduction reaction and no oxygen is present, no harmful chlorinated byproducts can be formed. This technology was used to destroy PCBs and obsolete pesticides in Australia.⁷ It was specifically developed for the Assembled Chemicals Weapons Destruction program.⁸



Supercritical Water Oxidation

Supercritical Water Oxidation uses the unique forces of supercritical fluids to breakdown the chemical bonds which form munitions, propellants, and energetics. Supercritical Water Oxidation uses super pressurized, heated water to tear apart the chemical bonds in toxic organic compounds, breaking them down into basic components such as water, carbon dioxide, and nitrogen gas.⁹ The lower temperature (compared to combustion) and the high pressure of the water keep harmful byproducts from being formed.¹⁰



Detonation Chambers with 'Hold, Test, and Release'

There are several types of detonation chambers that can be used to safely destroy waste munitions. These detonation chambers are much safer than open burning or incineration because they hold and test the gases to ensure all the toxic components have been destroyed before releasing them. One kind of detonation chamber, the DAVINCH chamber, detonates explosives in a vacuum. Without the presence of oxygen, harmful products of incomplete combustion cannot be formed.¹¹



¹ <http://www.truth-out.org/news/item/2377-military-hazardous-waste-sickens-land-and-people#1>

² <http://www.guns.com/2014/04/30/report-finds-1-billion-in-forgotten-ammunition-to-be-scrapped-by-military/>

³ <http://www.truth-out.org/news/item/2377-military-hazardous-waste-sickens-land-and-people#1>

⁴ <https://www.fas.org/sgp/crs/natsec/RL33432.pdf>

⁵ http://www.no-burn.org/downloads/Greenpeace_Incineration_HumanHealth.pdf

⁶ <http://www.acq.osd.mil/parca/docs/2011-ida-rca-acwa-p-4677.pdf>, http://www.globalsecurity.org/military/library/budget/fy2013/sar/18_chemdemil-acwa.pdf

⁷ https://cfr-in.org/download/partner/vijgen/NATO_EcolgFactSheet_3.pdf

⁸ <http://www.nap.edu/read/5274/chapter/8>

⁹ Howell, John R. (NAE), Chair, Committee to Assess Supercritical Water Oxidation System Testing for the Blue Grass Chemical Agent Destruction Pilot Plant, 2013, Assessment of Supercritical Water Oxidation System Testing for the Blue Grass Chemical Agent Destruction Pilot Plant, Board on Army Science and Techogy, National Research Council.

¹⁰ "Supercritical water oxidation for the destruction of toxic organic wastewaters: A review" Veriansyah Bambang and Kim Jae-Duck. Supercritical Fluid Research Laboratory, Korea Institute of Science and Technology. Department of Green Process and System Engineering. Journal of Environmental Sciences 19(2007) 513-522.

¹¹ <https://www.epa.gov/sites/production/files/2015-03/documents/9545947.pdf>

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Posted: Saturday, May 28, 2016 11:21 pm

By Tracy Overstreet
tracy.overstreet@theindependent.com

A Grand Island-based ammunition recycling company is planning a major expansion.

Heritage Disposal and Storage has applied for a permit to install a hazardous waste incinerator at its 900-acre site at 345 S. 80th Road. The site is part of the former Cornhusker Army Ammunition Plant west of Grand Island and includes 117 bunkers that were used to store ammunition manufactured at the plant when it was active from World War II through the Vietnam War.



Posted on May 28, 2016 by Tracy Overstreet

Heritage bought the site back in 2004. Since that time, some 2.86 million pounds of munitions, largely ammunition, explosives and fireworks, have been neutralized at the site, according to Heritage President Mark Vess. Heritage has also stored munitions for the Department of Justice and the Department of Transportation. Those items typically had been confiscated by law enforcement and were in storage awaiting the outcome of court cases.

But now Heritage has a new opportunity that Vess said will "turn the page" for the company and provide about 70 new jobs for the Grand Island area.

The U.S. Army recently awarded Heritage a contract to dispose of smoke grenades and related materials.

"It's for the thermal treatment of HC smoke canisters and smoke pots," Vess said of the contract.

Vess said smoke munitions, which emit a thick white smoke, have long been used in many military branches to serve as a screening tool both in training and in the battlefield. The Department of Defense has a large stockpile of old HC (hexachloroethane) smoke munitions to dispose of.

Heritage is proposing to install a \$15 million rotary kiln that would be used to incinerate the smoke munitions, capture emissions and leave by-products of fly ash, which can be used to make concrete, and metal scraps.

Under a proposal presented Tuesday by engineers, the kiln would be sized to process up to 15,000 tons of munitions each year.

Heritage's awarded contract calls for about 3,300 tons of munitions to be processed every 242-days, the length of the base contract. That contract can be followed with two additional 242-day contracts. Vess expects that even more incineration contracts will follow.

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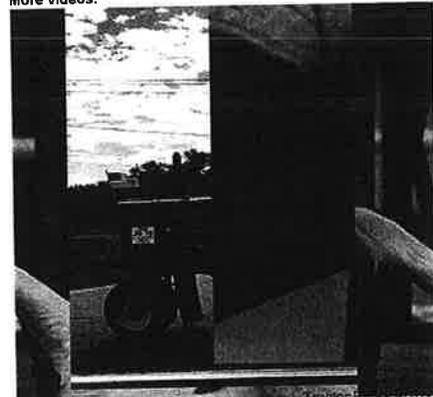
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 At full-operation under the base contract, Vess said he expects to run a day shift and night shift over 24 hours and process 1,153 pounds of product per hour.

The Nebraska Department of Environmental Quality and its Director Jim Macy are handling the request for the hazardous waste facility permit. State law requires that a special committee be appointed to review the application.

It's the second time in Nebraska's history that such a committee has been convened for this purpose. The last time was 25 years ago to review an Omaha project, which never came to fruition.

Macy has named the committee, which met for the second time May 24 in Alda to review its task.

"We have six months to study the impacts of this facility," said site review committee Chairman John Turnbull, who retired in January as the general manager of the Upper Big Blue Natural Resources District in York.

The committee is to study eight things — economic considerations, the function of the facility, technological considerations, site characteristics, environmental quality, transportation, emergency response, and applicable regulations and enforcement.

"This will have a significant impact on this area," Turnbull said.

The committee will be working closely with Heritage's engineering firm, Parametrix of Seattle, to evaluate the impact on the soil, ground, water and air, as well as evaluating every other aspect of the business and the proposed incinerator.

"We're reviewing to see if this is a reasonable site for this to be at and how it will affect the locals," Turnbull said. "We want to know how the stuff will get transported in, what does he do with the metal at the end of the process, are the emissions meeting air quality standards, does it have any impact on water or water quality — things that neighborhoods would be concerned about."

There are no residences in the vicinity of the incinerator location on the former 20-square mile Cornhusker Army Ammunition Plant site. The Army prohibited houses there after it spent years and millions of dollars in environmental cleanup before selling the plant land back into private ownership.

Regional Planning Director Chad Nabity, who was elected vice chairman of the committee, said the committee and its work is a learning situation for all involved, but it's a valuable task.

"The big thing that stood out to me is ... this will result in a substantial expansion of their operation," Nabity said.

While that's great economic news, both Turnbull and Nabity said, environmental questions and safety questions have to be answered.

"We need to know what it's going to do for water runoff, how they're going to handle water on site — both water that is falling on site and water they are using in processing," Nabity said. "We'll need to know how efficiently the kiln is burning the chemicals and what the results are for the stuff that's left over and be assured those can be handled appropriately."

The committee includes representatives from the medical and university community, as well as environmental interests, residents within five miles of the proposed incineration site and representatives from all the neighboring governmental bodies.

The committee is to meet twice in June — once to tour the proposed site and once to discuss emergency situations and transportation factors.

The committee's final report to Macy and the DEQ is to be presented in October. The Hall County Board of Supervisors will also be asked to make a recommendation on the permit before Macy makes a final decision on the permit.

Should the permit be issued, Vess said construction on the site should begin in the summer of 2017 and be operational by the summer of 2018.

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- Chairman John Turnbull, retired NRD manager, York, environmental representative.
- Vice-Chairman Chad Nabity, Regional Planning director, Grand Island, community planner.
- Teresa Anderson, Central District Health Department director, Grand Island, medical community.
- Timothy Smith, Crane Trust, Wood River, public interest group.
- Alex Harness, CNH, Grand Island, industry representative.
- Chris Exstrom, UNK Department of Chemistry, Kearney, academic representative.
- Casey Sherlock, Hall County Public Works director, Alda, local government representative.
- Jon Rosenlund, Grand Island/Hall County Emergency Management director, Grand Island, local government representative.
- Brad Kloss, Village of Alda, Alda, local government representative.
- Dan Purdy, Hall County supervisor, Grand Island, local government representative.
- Karen Bredthauer, developer, Grand Island, local government representative.
- Greg Baxter, T&E Cattle Co., Grand Island, local government representative.

For more information: Nebraska Department of Environmental Quality website at <http://deq.ne.gov/NDEQProg.nsf/OnWeb/Heritage>.

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Cease Fire Campaign

Zinc oxide (military designation, HC or HC smoke) is a chemical warfare obscurant that contains equal percentages of zinc oxide and hexachloroethane, with approximately 7% grained aluminum. Depending on the intensity of the exposure, a wide range of clinical effects occurs; exposures as brief as 1 minute may lead to death (U.S. Department of Army, Office of the Surgeon General). There are proven safer cost-effective alternative technologies to incineration that are more protective of workers, soldiers, residents and the environment, and have been successfully implemented in other communities. Has there been an open public dialogue in your community about alternatives?

The Cease Fire Campaign is a national grassroots coalition of environmental justice, labor, health and veterans service organizations calling for safer solutions to open air burning, detonation and incineration of hazardous waste munitions. More at <http://cswab.org/resources/cease-fire-campaign/>

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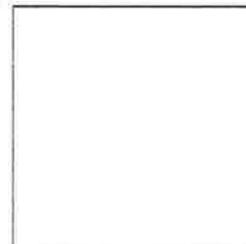
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Hazardous Waste Site Review Committee Meeting Agenda & Minutes

July 19th, 2016

Hazardous Waste Site Review Committee Meeting
July 19, 2016, 4:00 PM CDT
Alda Community Center
6410 W Highway 30, Alda, NE

AGENDA

- I. Call to Order**
- II. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**
- III. Roll Call**
- IV. Review and Approval of June 23, 2016 Meeting Minutes**
- V. Review of Agenda and Update of Notebooks**
- VI. Heritage Presentation on Economic Considerations**
 - 1. #1 Economic considerations such as whether the facility is needed, profit expectations for the facility, how the facility will be operated, effects on the community, the potential for compensation to the local governing body, and aspects related to closure of the facility**
 - 2. Question and Answer from Heritage Presentation**
- VII. Heritage and NDEQ Presentations on Enforcement and Regulation**
 - 1. #8 Enforcement provisions, including applicable regulations, monitoring plans, who is responsible for enforcement, sequence and timing of possible enforcement, and the ability of governmental agencies to ensure compliance.**
 - 2. Question and Answer from Heritage and NDEQ Presentations**
- VIII. Method of Disposal Technology**
- IX. Issues, Concerns, Conclusions for Factors 1-8**
- X. Comments, Feedback, Next Steps and Adjourn**
 - A. Member Comments**
 - B. Meeting Feedback**
 - C. Summary of Next Steps**
 - D. Public Comments**
 - E. Adjourn**

Hazardous Waste Site Review Committee Meeting

July 19, 2016, 4:00 PM CDT

Alda Community Center

6410 W Highway 30, Alda, NE

I. Call to Order

II. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)

The Chair, John Turnbull, called the meeting to order at 4:00 PM Central Daylight Time. Chairman Turnbull verified public notice and availability of copy of law in the meeting location – NEB. REV. STAT. §§ 84-1407 THROUGH 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)

III. Roll Call

Seven of the twelve appointed committee members were present at roll call; Alex Harness arrived at approximately 4:15. There were no members of the public present at the meeting.

First Name	Last Name	Attendance
Teresa	Anderson	
Greg	Baxter	
Karen	Bredthauer	X
Chris	Exstrom	X
Alex	Harness	X
Brad	Kloss	X
Chad	Nabity	X
Dan	Purdy	X
Jon	Rosenlund	
Casey	Sherlock	
Timothy	Smith	X
John	Turnbull	X

Others in attendance: Dwight Miller-Heritage, Mark Vess-Heritage, Joe Francis-Nebraska Department of Environmental Quality (NDEQ), David Graiver-NDEQ, Daniel LeMaistre-NDEQ, David Haldeman-NDE, Branden Lubke – Nebraska Fire Marshal, Mark DeKraai – University of Nebraska Public Policy Center (UNPPC), Addison Fairchild - UNPPC

IV. Review and Approval of June 23, 2016 Meeting Minutes

The meeting minutes refer to “DTS.” It was determined “DTS” is an acronym for Disposal, Treatment and Storage. The final report will include “DTS” in the list on acronyms.

Chad Nabity made a motion to approve the June 23, 2016 meeting minutes. The motion was seconded by Karen Bredthauer; the motion passed by roll call vote with no abstaining votes and no dissensions. Committee member Alex Harness was absent at the time of this vote.

- **Yea:** Breadthauer, Exstrom, Kloss, Nabity, Purdy, Smith, Turnbull
- **Nay:** None
- **Abstentions:** None

V. Review of Agenda and Update of Notebooks

1. Joe Francis led the discussion on updating the notebooks. The next meeting NDEQ staff will bring a new set of dividers. Under tab number 5, under miscellaneous information, insert a memo regarding when the final report is due. Under tab number 8, insert the letter to the editor to the Lincoln and Grand Island papers, which will be discussed later. Mark Vess sent a memo/note with a couple of links that includes additional information. The official minutes of the meeting from last month June 23 will go under tab 9. The agenda for today’s meeting can be inserted under tab 10. The PowerPoint presentation that the Nebraska Department of Environmental Quality (NDEQ) will be presenting will go under tab 10.
2. Mark DeKraai reviewed the agenda. There are two additional papers in front of each member: one is the 8 factors that we will be going over today; the other is an individual feedback form if you want to give meeting feedback anonymously. We have presentations on two of the eight factors today: Heritage will present on economic considerations; then for enforcement considerations, there will be two presentations - the first by NDEQ and the Fire Marshal and the second by Heritage. An opportunity for questions will follow each presentation. An additional item has been added about method of disposal technology. The committee will then discuss issues, concerns and conclusion for all 8 areas. The committee will finish up with member comments and public comments, meeting feedback, and summarizing steps for the next meeting. Dates have been set for the August and September meetings.

VI. Heritage Presentation on Economic Considerations

1. **#1 Economic considerations such as whether the facility is needed, profit expectations for the facility, how the facility will be operated, effects on the community, the potential for compensation to the local governing body, and aspects related to closure of the facility**
Dwight Miller presented on behalf of Heritage

Factors being discussed:

- **#1 Economic Considerations**
 - Need for facility
 - The Army has over 550,000 tons of conventional munitions needing demilitarization
 - An Army Small Business Award was won by Heritage
 - Heritage was awarded the contract, so to deliver Heritage will need to have the facility to meet the contract obligations
 - The existing storage and support infrastructure is recognized as meeting best-in-industry standards.
 - Heritage plans to have economically sustainable development
 - Expected profit – viability of business plan
 - The initial operation is based on the awarded Army Small Business (SB) Contract
 - The Small Business status enhances opportunities for future contract awards
 - The current award represents less than 2% of prospective Army conventional demilitarization needs
 - The facility will have capacity for additional federal, state, and private material thermal treatment
 - How will Heritage operate the facility
 - Heritage will manage and operate the facility
 - Heritage will hire and train local operations staff
 - More than 90% of hires will be from local area and Nebraska
 - Specialized safety, technical, and professional skills positions may need to be sourced nationally
 - There will be daily, weekly, monthly operating and performance monitoring, which will be required for maintaining cost effective performance as well as environmental and safety obligations of the facility
 - Effects on the community
 - The operation creates over 12 management positions
 - There will be 50 full time employment and 12 part time employment jobs
 - Service Contract Act (SCA) wage rates or hire with competitive benefits package
 - Annual salaries will range \$50K to \$100K Over \$3.5M annual payroll
 - There is an estimated three times multiplier in positive economic impact
 - There will be compensation to local governing body through property and sales taxes
 - Financial assurance at closure
 - There are Resource Conservation and Recovery Act (RCRA) requirements for funds for closure and decommissioning of Treatment, Disposal and Storage (TDS) Facilities

- These requirements ensure the community is not impacted by a closed facility.

2. Question and Answer from Heritage Presentation

Question and Answer Regarding Economic Considerations

Committee member question: In Missouri, how many truckloads do they get? When we're seeing jobs, Mark said there would be three, maybe four truckloads a week. I'm having a hard time understanding how we're going to have that many jobs?

Heritage answer: It is three, maybe four truckloads a day initially. Basically we have to have the capability to store 1,600 tons of material onsite. And we have to have the capability to process 141 tons minimum per month based off of the contract with the government. So the rotary kiln operation... you don't fire it up, cool it down – it runs 24 hours a day 7 days a week. So when you think about it, if you have 4 shifts working 3.5 days a week, you have a total of 42 hours a week that each of the four shifts will work. If you take the management position, it requires 3 per shift for a total of 12 and the 50 people and the 12 people are divided out. You have all these different people working combined hours to make the full week. You really end up with 12 or 13 full time employees per shift. Because it's a 24/7 operation, it requires a lot of people.

SCA wage rates establish what those folks make. Because the job is at Heritage and it involves the handling of hazardous materials, explosives, employees at Heritage get a pay increase because it's hazardous work (if they are directly handling materials they get an 8% increase, and if they are indirectly handling them they get a 4% increase). You're looking at really strong wage packages.

The government issued certain requirements for this contract which prevented people competing for the contract from coming back and saying that they can't store it all. This is why the contract was awarded because Heritage has the capability of taking a certain amount of materials. The transportation cost was combined with the cost that we said we could do the work for.

Committee member question: What about the impact on housing in this area? Schools?

Heritage answer: We're hoping that a lot of these skills are material handling jobs, so you actually already have those kinds of people here. We're hoping to recruit from the Grand Island area or outside of the immediate area within Nebraska almost everyone that we need. It should have a relatively small effect. For the highly trained people (chemists, etc.), they will more than likely be older and will just be relocating here. I don't think that it will have a great impact.

Chad Nabity answer: When you're talking 50-70 jobs within a community the size of the Grand Island metropolitan area, at those upper ends there is sufficient capacity, although we do have a tight housing market. It won't impact Alda that much because Grand Island will absorb some of it. At the lower end, those are probably people that are already here. We figure a little over a 1%

growth rate for Grand Island so that anticipated growth can accommodate a portion of the additional positions.

VII. Heritage and NDEQ Presentations on Enforcement and Regulation

- 1. #8 Enforcement provisions, including applicable regulations, monitoring plans, who is responsible for enforcement, sequence and timing of possible enforcement, and the ability of governmental agencies to ensure compliance.**

David Graiver, Daniel Le Maistre and David Haldeman presented on behalf of NDEQ

Regulatory Interaction

Applicable Programs include the following:

1. Air Quality – Title 129 – Air Quality Regulations
2. Resource Conservation and Recovery (RCRA) – Title 128 – Hazardous Waste Regulations
3. Water Quality – Title 119 – National Pollutant Discharge Elimination System and Title 123 – Design, Operation, and Maintenance of Wastewater Works

It is important to note that NDEQ will not be able to make definitive statements on the ramifications of many of its regulatory programs on Heritage until a complete application is filed by Heritage. Heritage cannot submit their applications until the Hazardous Waste Site Review Committee have completed and submitted the required report.

- Nebraska Department on Environmental Quality (NDEQ) Interactions
 - Each program will have three primary methods of interacting with Heritage:
 - 1. Permitting,
 - 2. Compliance Verification, and
 - 3. Outreach and Assistance
- Air Quality Permitting
 - These are based on “Potential to Emit”
 - Construction Permits are
 - Project driven
 - Both State and Federal
 - Operating Permits include
 - All operations at facility
 - All applicable requirements
 - State and Federal
- Air Construction Permits are required because of the use of an incinerator
 - State Permits
 - Ensure protection of National Ambient Air Quality Standards
 - Ambient air is air outside of buildings to which the general public has access
 - Requirements vary state to state
 - Federal Permits:

- Pertain to prevention of significant deterioration
 - The requirements are more uniform than between states
 - Federal requirements are much more involved
- Air Operating permits are required because of the use of an incinerator and include:
 - Federal Permits
 - Also known as Class I, Major, or Title V permits
 - State Permits
 - Are Class II Operating Permits in Nebraska
 - They allow the source to avoid Federal Operating Permit
- Air Quality Compliance Verification
 - Federal rules can require a Class 1, Title V operating permit
 - Compliance verification consists of periodic facility inspections including:
 - Entrance and exit interviews
 - Records review
 - Visual inspection of all emission units
 - Inspections are random and are unannounced
 - They frequency will depend on type and quantity of air pollutants emitted.
 - They can be conducted in response to complaints
 - They can be conducted in response to records and reports
- Resource Conservation and Recovery (RCRA) Permitting
 - This facility qualifies as a commercial hazardous waste management facility
 - The permit duration is 5 years
 - The permit contains operational and post-closure (30 years) requirements
 - The requirements for operation and post-closure:
 - Specifies what can be treated
 - Requires financial assurance
 - Requires monitoring and recordkeeping
 - There are engineering and geologic reviews of all plans
 - 2 Parts:
 - Part I (NDEQ)
 - Part II (EPA)
 - No new local siting – tests would have to be completed on materials other than those included in the original permit application
- RCRA Compliance Verification
 - There are three Treatment Storage Disposal Facilities (TSDF) in Nebraska and 80 Large Quantity Generators (LQGs)
 - TSDFs are inspected annually
 - LQGs are inspected every four years
 - Compliance verification consists of periodic facility inspections including:
 - Entrance and Exit interviews
 - Records review
 - Visual inspection of all emission units
 - Inspections are random and are unannounced

- There will be annual inspections for Heritage
 - They can be conducted in response to complaints
 - They can be conducted in response to records and reports
- Water Permitting
 - NPDES (National Pollutant Discharge Elimination System) Construction Stormwater General Permit
 - Required for land disturbances of 1 acre or more
 - NPDES Industrial Stormwater General Permit
 - Required for a commercial hazardous waste management facility
 - NPDES Discharge Permit
 - Based on the Effluent Limitation Guideline (ELG) at 40 CFR 457 and water quality standards. Includes air pollution control scrubber blow-down.
 - Meeting and ELG and water quality standards require treatment
 - Wastewater treatment systems must be designed by professional engineers registered to practice in the State of Nebraska
 - Systems must be permitted by the NDEQ Technical Assistance Unit
- Water Compliance
 - Construction Stormwater (CSW)
 - Requires implementation and monitoring of CSW best management practices. The CSW permit may be terminated after construction is completed.
 - Industrial Stormwater (ISW)
 - Requires implementation and monitoring of ISW best management practices and benchmark sampling.
 - NPDES Discharge Permit
 - Requires the treatment and sampling of wastewater to ELG or water quality standards.
 - All NPDES permits are subject to NDEQ inspections.
- Environmental Protection Agency (EPA) Involvement
 - Nebraska is part of U.S. EPA Region 7, which includes:
 - Nebraska, Iowa, Kansas, and Missouri
 - EPA has federal oversight of Nebraska's environmental programs.
 - EPA conducts some inspections
 - EPA reviews and advises NDEQ
- Facility Responsibilities:
 - Build as described in applications
 - Follow applicable rules and regulations
 - Obtain proper permits
 - Good recordkeeping and reporting
 - Communicate issues to NDEQ
 - Where issues come up is typically when there may be problems with communication, and a little problem snowballs into a bigger problem.

- Compliance
 - Enforcement may occur as a result of routine or complaint-driven inspections:
 - Inspections - routine
 - Each facility has a specific set of rules and regulations
 - Inspections – complaint-driven
 - Can be written, online, or phone calls. All three of these types of methods are utilized
 - Review of records or reports
 - For example, someone isn't doing reporting or record-keeping as required. Or there is content that suggests activity that is outside of what the permit allows.
 - Enforcement action taken on a case by case basis and includes three options: informal warning, letter of warning, and notice of violation.
 - Informal warning is:
 - Used for minor issues that can be easily corrected (e.g. omission of a signature).
 - Follow-up action is not typically necessary.
 - Letter of Warning (LOW)
 - Requests compliance for issues that are minor but still substantive.
 - Issues that are straightforward and can be reasonably resolved without further intervention.
 - Recordkeeping issues
 - Reporting issues
 - The LOW can:
 - Describe the issues,
 - Establish remedies, and
 - Specify the timeframe for correcting issues
 - Fines and penalties are not typically associated with LOWs
 - Notice of Violation is
 - Used for more severe infractions
 - Spills
 - Exceeding limitations
 - Repeated infractions
 - Can require
 - Monitoring
 - Testing
 - Physical Modifications
 - Could be to the facility – if that occurs, there may be a need to revise the permit
 - Permit revisions
 - If issues are not resolved, the following options can be used:
 - Directors Order/Compliance Order/Consent Order

- Referral to the Nebraska Attorney General's (AG's) office
 - Fine of \$10,000 per day per violation maximum
 - Referral to the EPA
 - Fine of \$500 – \$250,000 per day per violation maximum (EPA)
 - Supplemental Environmental Projects
 - Criminal Action
 - Example #1 (referral to attorney general)
 - Facility in western Nebraska
 - Took in several unpermitted hazardous wastes
 - Over 280 violations (Maximum potential penalty = \$2,800,000)
 - AG's office and Facility reached a settlement
 - \$80,000 in fines plus court costs
 - \$80,000 in supplemental environmental projects
 - Example #2 (referral to attorney general)
 - Facility operated as a treatment storage and disposal facility (TSDF) without the appropriate post-closure permit.
 - Required to:
 - Submit all necessary information within 60 days.
 - Meet all relevant fire and safety standards
 - Modify the application with more stringent more stringent groundwater monitoring standards
 - Increase financial assurance from \$1.4 million to \$2.6 million
 - Example #3 (administrative example)
 - Facility stored and processed waste containing more than 50 mg/kg of Polychlorinated-Biphenyls (PCBs) in violation of their permit.
 - Also processed wastes with mercury levels that exceeded permitted levels
 - Approximately 29 days of violations
 - (\$290,000 maximum fine)
 - Facility entered a Consent Order with NDEQ
 - 2 years of additional PCB sampling
 - New inventory management program
 - No fine
- Outreach and Assistance
 - The NDEQ prefers to work with a facility when possible
 - Permit Assistance Visits
 - Once a permit is issued, we will sit down with the facility and go through the content
 - Compliance Assistance Visits
 - A facility can request the NDEQ to review procedures – no harm, no fault manner so our experts can advise on compliance issues

- Public Records
 - Nebraska Administrative Code Title 115, Ch. 4
 - Almost all documents the NDEQ receives are publicly available records and available at any time on the NDEQ web page.
 - Permit Applications
 - Correspondence/Reports
 - Finalized Orders/Litigation
 - Pending legal matters are confidential until complete
 - Other things can be kept confidential under Title 115.

Nebraska Fire Marshal

Branden Lubke presented on behalf of the Nebraska Fire Marshal

- As the building begins, the architect and engineer must submit plans for review. After the plans are reviewed, the review will go to the engineer and any other contacts. When the review is sent back to the engineer, the local code enforcement deputy gets a copy which lets them know something is going on. With that, we work on timelines. There are specific code reviews that are separate for each process – for general construction for each building, underground wiring, fire alarm, clean agent system, etc. With those, everything but the general building code review, the fire marshal has to witness an acceptance test. With the general construction, before the building is to be used, the fire marshal has to come in many times (beginning, midway point, at the end at the very least). When everything is done, the fire marshal will give the building occupancy
- Just like with NDEQ, the Fire Marshal will work with Heritage. If there are questions, the Fire Marshal encourages customers to call and ask.

2. Question and Answer from Heritage and NDEQ and Fire Marshal Presentations

Committee member question: Have prior inspections been done at Heritage?

Heritage answer: Yes, the state Fire Marshal has certified the use of all existing facilities. We're talking about the addition of a new facility. Once that facility is constructed and approved, the fire marshal will not look at it again unless a complaint is received.

Committee member question: Theoretically, say Heritage is up and running and inspectors are coming, but say there is an accident. So then, the fire marshal will be out there?

Fire Marshal answer: Depending on the incident, if it involves a fire, it will involve the arson investigators which is a different part of our division. If there is a fuel spill, there is a fuel division. But, say there's a problem where people are injured, if we receive notice of that as a complaint, we will come out and look at it.

Heritage answer: Basically, if there's a compliance related issue or accident or injury, the US Army requires a full accident report and notification of the Army within 8 hours. The Fire

Marshal's office would also get notified, the NDEQ would get notified, as would the local fire department and emergency managers, hospitals, etc.

Inspection is like an upside down pyramid – at the beginning you start with encompassing inspections, but as you show compliance, they get less and less encompassing.

Committee member question: In general, how tied together are the permitting processes? Are state permits required always and sometimes federal permits?

NDEQ answer: For construction permits, it's one or the other permit (state or federal). Even if it's a federal permit, NDEQ is the agency giving it.

Committee member question: Does NDEQ oversee construction activities?

NDEQ answer: No, we have someone issue the permit, but actually watching the construction is not part of NDEQ's job. NDEQ will conduct inspections; there will be entrance and exit interviews and record reviews. The inspections are random and unannounced. In the air quality program, frequency depends on the air emission by the type of facility. We also inspect in response to any type of complaint. If there is a record or report that trips a red flag, we can send our inspectors out there as well.

Committee member question: For everything that can go wrong, you only check once a year?

NDEQ answer: At least once a year – there are many different organizations (EPA, RCRA) that go out once a year so there will be several inspections a year. There is also self-reporting and other requirements for monitoring and those need to be done in a timely manner. This can trigger an inspection or some sort of an action to remedy the problem.

Longer intervals can be seen with smaller facilities (dry-cleaners, auto body shops), but a facility like this is a big deal here in Nebraska so constant contact will be kept with Heritage.

In NDEQ and other agencies, it is like community policing – agencies are there to help ensure that it is in compliance. Everyone will be on the same page (NDEQ will be in touch with the EPA). There is also a field office in Grand Island here in the Natural Resource District (NRD) office, so NDEQ can rely on that person if an issue comes up that needs quick attention.

Heritage answer: There is a conditional use permit required for the facility that would be granted by the county. One of the important points is that to be in compliance with the conditional use permit, you must be in compliance with all other permits. It's another hammer that the county has over the facility and another point of enforcement at the local level to ensure that the facility is in compliance.

Fire Marshal answer: The Fire Marshal doesn't come in to say what is wrong, and here's a fine. The Fire Marshal comes in and points out what needs to be fixed, otherwise the facility will be closed, but normally it doesn't get to that point.

VIII. Method of Disposal Technology

The Chair, John Turnbull introduced this item on the agenda. “Method of Disposal Technology” was put on the agenda recently. There was a letter to the editor published on the 13th of July in the Grand Island Independent from an individual representing Citizens for Safe Water who was concerned about the methods of disposal.

Mark Vess presented on behalf of Heritage.

The US Government cannot use open burn (OB) or open detonation to dispose of munitions. The US Government has done extensive studies of technologies to demilitarize weapons such as electrical oxidation, biological degradation, chemical reduction, hydrothermal oxidation, and thermal plasma. It is important to note that in this case, the US Army is considering the best technology for conventional munition demilitarization rather than chemical munition demilitarization. For HC-smoke, the US Army required the most appropriate technology: thermal treatment. This technology is proven, environmentally sound, economical, and scalable.

The US government develops a request for proposal and the request for proposal gives you a small amount of a larger amount of information as a starting point. In the letters to the editor, the person says that they are concerned and surprised to hear about the massive incinerator. It goes on to talk about there are proven alternatives. It also calls for the end to open air burning.

There are 18 reference documents referring to the Army specifying 7 technologies recommended for the disposal of chemical demilitarization and 6 of the 7 technologies use thermal technology.

The person who wrote the letter to the editor was right, there is an alternative, but it equates to about \$68,000 per ton to get rid of an irritant, and not even a lethal material. It’s not applicable to this effort. The Army takes all of this into consideration before they issue a request for proposal. Heritage proved to the government that we can do and conduct work that meets the requirements. Thermal treatment was specified by the government, it’s a closed system and open burning is not allowed. This is well thought out and it’s well decided. They took 18 months to make this decision with a whole cast of characters.

Committee member question: In the past, Heritage’s technology is a novel adaptation, has the army destroyed HC smoke emissions using open air burning?

Heritage answer: Yes – the US EPA shut them down. The Heritage method is more environmentally friendly than previously used. Also, the facility is brand new and will be built with modern EPA requirements.

Committee member question: Mark – if you got hit by a truck, who’s your successor?

Heritage answer: We have the investors. We have administrative management which is being performed in Seattle, Washington. Our engineers – 2 Nebraska firms, and 4 national firms. The managers and compliance staff – Mark is just the leader of the band.

IX. Issues, Concerns, Conclusions for Factors 1-8

Deferred to the next meeting.

X. Comments, Feedback, Next Steps and Adjourn

A. Member Comments

There were no additional member comments.

B. Meeting Feedback

There was no meeting feedback.

C. Summary of Next Steps

August 23 – 4:00 PM next meeting (location TBA)

September 20 – 4:00 PM (location TBA)

A Doodle Poll will be sent to determine a date for an early October meeting to go over final report.

D. Public Comments

There were no public comments.

E. Adjourn

John Turnbull, adjourned the meeting at 6:18 PM Central Daylight Time

Hazardous Waste Site Review Committee Meeting Presentation
Materials and Handouts

July 19th, 2016



HDS Facility Expansion Site Review Committee

HERITAGE DISPOSAL & STORAGE, LLC

DWIGHT MILLER, PE, PARAMETRIX

MARK VESS, HDS

July 19, 2016

PRESENTATION OUTLINE

1. Factors considered in this presentation
2. #1 Economic Considerations
3. Q&A
4. #8 Enforcement Provisions
5. Q&A
6. Method of Disposal Technology
7. Q&A

FACTORS BEING DISCUSSED

#1 Economic Considerations

#8 Enforcement Provisions

Related Factors:

#5 Environmental Implications

#7 Emergency Response

#1 ECONOMIC CONSIDERATIONS

- Need for facility
- Expected profit – viability of business plan
- How will Heritage operate facility
- Effects on the community
- Compensation to local governing body
- Financial assurance at closure

NEED FOR FACILITY

- Army has over 550,000 tons of conventional munitions needing demilitarization
- Army Small Business Award – Heritage
- Recognizes best in industry existing storage and support infrastructure
- Heritage will have economically sustainable development

VIABILITY OF BUSINESS PLAN

- Initial operation based on awarded Army Small Business (SB) Contract
- SB status enhances opportunities for future contract awards
- Current award represents less than 2% of prospective Army conventional demil needs
- Facility will have capacity for additional federal, state, and private material treatment

HOW WILL HERITAGE OPERATE FACILITY

- Heritage will manage and operate facility
- Hire and train local operations staff
 - Above 90% of hires from local and Nebraska
 - Specialized safety, technical, and professional skills positions may be sourced national
- Daily, weekly, monthly operating and performance monitoring

EFFECTS ON THE COMMUNITY

- Creates over 12 management positions
- 50 FTE and 12 PTE jobs
 - SCA wage rates or hire with competitive benefits package
 - Range \$50K to \$100K annual salaries
 - Over \$3.5M annual payroll
- Three times multiplier in positive economic impact
- Compensation to local governing body through property and sales taxes

FINANCIAL ASSURANCE AT CLOSURE

- RCRA requirement for funds for closure and decommissioning of TDS Facilities
- Ensures community is not impacted by contaminated infrastructure

Questions?

#8 ENFORCEMENT PROVISIONS

Presentation given by NDEQ staff

Questions?

METHOD OF DISPOSAL TECHNOLOGY

- NO open burn (OB) or open detonation (OD)
- Thermal treatment (rotary kiln) with APC
- Chem demil versus conventional demil
- US Government review of technologies:
 - Electrochemical oxidation
 - Biological degradation
 - Chemical reduction
 - Hydrothermal oxidation
 - Thermal plasma

METHOD OF DISPOSAL TECHNOLOGY (Cont.)

- Heritage Technology Selection Criteria:
 - US Army approved technology (thermal treatment)
 - Environmentally sound
 - Proven technology (flatten process and operations learning curve)
 - Economical
 - Scalable technology



Nebraska Department of Environmental Quality

Presentation to Heritage Local Siting Committee

07/19/2016

Alda, NE

Regulatory Interaction



Nebraska
Department
of Environmental
Quality

David Graiver, PE – Air Quality Division
Daniel LeMaistre, PE – Land Management Division
David Haldeman – Administrator Land Management Division

Applicable Programs

1. Air Quality
 - Title 129 – Air Quality Regulations
2. Resource Conservation and Recovery (RCRA)
 - Title 128 – Hazardous Waste Regulations
3. Water Quality
 - Title 119 – National Pollutant Discharge Elimination System
 - Title 123 – Design, Operation, and Maintenance of Wastewater Works

2

NDEQ Interactions

Each program will have three primary methods of interacting with Heritage:

1. Permitting,
2. Compliance Verification, and
3. Outreach and Assistance

3

Air Quality Permitting

- Based on "Potential to Emit"
- Construction Permits
 - Project driven
 - State and Federal
- Operating Permits
 - All operations at facility
 - All applicable requirements
 - State and Federal

4

Air Construction Permits

- State Permits
 - Ensure protection of National Ambient Air Quality Standards
 - Ambient air - Air outside of buildings to which the general public has access
 - Requirements vary state to state
- Federal Permits
 - Prevention of Significant Deterioration
 - Requirements more uniform between states
 - Much more involved

5

Air Operating Permits

- Federal Permits
 - a.k.a. Class I, Major, or Title V
- State Permits
 - Class II Operating Permits in Nebraska
 - Allows source to avoid Federal Operating Permit

6

Air Quality Compliance Verification

- Compliance verification consists of periodic facility inspections
 - Entrance and Exit interviews
 - Records review
 - Visual inspection of all emission units
- Inspections are random and are unannounced
 - Frequency will depend on type and quantity of air pollutants emitted.
 - In response to complaints
 - In response to records and reports

7

RCRA Permitting

- This facility qualifies as a commercial hazardous waste management facility
- Permit duration is 5 years
- Contains operational and post-closure (30 years) requirements

8

RCRA Permitting

- Requirements for operation and post-closure
 - Specifies what can be treated
 - Financial assurance
 - Monitoring and recordkeeping
- Engineering and geologic review of all plans
- 2 Parts
 - Part I (NDEQ)
 - Part II (EPA)
- No new local siting

9

RCRA Compliance Verification

- 3 Treatment Storage Disposal Facilities (TSDF) in Nebraska and 80 Large Quantity Generators (LQGs)
 - TSDFs inspected annually
 - LQGs inspected every four years

10

RCRA Compliance Verification

- Compliance verification consists of periodic facility inspections
 - Entrance and Exit interviews
 - Records review
 - Visual inspection of all emission units
- Inspections are random and are unannounced
 - Annual inspections for Heritage
 - In response to complaints
 - In response to records and reports

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Water Permitting

- NPDES Construction Stormwater General Permit
 - Required for land disturbances of 1 acre or more
- NPDES Industrial Stormwater General Permit
 - Required for a commercial hazardous waste management facility
- NPDES Discharge Permit
 - Based on the Effluent Limitation Guideline (ELG) at 40 CFR 457 and water quality standards. Includes air pollution control scrubber blow-down.

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Water Permitting

- Meeting and ELG and water quality standards require treatment
- Wastewater treatment systems must be designed by professional engineers registered to practice in the State of Nebraska
- Systems must be permitted by the NDEQ Technical Assistance Unit

13

Water Compliance

- Construction Stormwater (CSW)
 - Requires implementation and monitoring of CSW best management practices. The CSW permit may be terminated after construction is completed.
- Industrial Stormwater (ISW)
 - Requires implementation and monitoring of ISW best management practices and benchmark sampling.
- NPDES Discharge Permit
 - Requires the treatment and sampling of wastewater to ELG or water quality standards.
- All NPDES permits are subject to NDEQ inspections.

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EPA Involvement

- Nebraska is part of USEPA Region 7
 - Nebraska, Iowa, Kansas, and Missouri
- EPA has federal oversight of Nebraska's environmental programs.
 - EPA conducts some inspections
 - Review and advise NDEQ

15

Facility Responsibilities

- Build as described in applications
- Follow applicable rules and regulations
- Obtain proper permits
- Good recordkeeping and reporting
- Communicate issues to NDEQ

16

Compliance

- Enforcement may occur as a result of:
 - Inspections
 - Public Complaints
 - Review of Records or Reports
- Enforcement action taken on a case by case basis.

17

Compliance

Informal warning

- Used for minor issues that can be easily corrected (e.g. omission of a signature).
- Follow-up action is not typically necessary.

18

Compliance

Letter of Warning (LOW)

- Requests compliance for issues that are minor but still substantive.
- Issues that are straightforward and can be reasonably resolved without further intervention.
 - Recordkeeping issues
 - Reporting issues

19

Compliance

The LOW can:

- Describe the issues,
- Establish remedies, and
- Specify the timeframe for correcting issues

Fines and penalties are not typically associated with LOWs

20

Compliance

Notice of Violation

- Used for more severe infractions
 - Spills
 - Exceeding limitations
 - Repeated infractions
- Can require
 - Monitoring
 - Testing
 - Physical Modifications
 - Permit revisions

21

Compliance

Notice of Violation (cont.)

- If issues are not resolved:
 - Directors Order/Compliance Order/Consent Order
 - Referral to the Nebraska Attorney General's (AG's) office
 - Referral to the EPA
 - Criminal Action
 - Fines
 - \$10,000 per day per violation maximum (NDEQ)
 - \$500 – \$250,000 per day per violation maximum (EPA)
 - Supplemental Environmental Projects

22

Compliance

Example #1

- Facility in western Nebraska
 - Took in several unpermitted hazardous wastes
 - Over 280 violations (Maximum potential penalty = \$2,800,000)
 - AG's office and Facility reached a settlement
 - \$80,000 in fines plus court costs
 - \$80,000 in supplemental environmental projects

23

Compliance

Example #2

- Facility operated as a treatment storage and disposal facility (TSDF) without the appropriate post-closure permit.
- Required to:
 - Submit all necessary information within 60 days.
 - Meet all relevant fire and safety standards
 - Modify the application with more stringent more stringent groundwater monitoring standards
 - Increase financial assurance from \$1.4 million to \$2.6 million

24

Compliance

Example #3

- Facility stored and processed waste containing more than 50 mg/kg of Polychlorinated-Biphenyls (PCBs) in violation of their permit.
- Also processed wastes with mercury levels that exceeded permitted levels
- Approximately 29 days of violations (\$290,000 maximum fine)

25

Compliance

Example #3 (Cont.)

- Facility entered a Consent Order with NDEQ
 - 2 years of additional PCB sampling
 - New inventory management program
 - No fine

26

Outreach and Assistance

- The NDEQ prefers to work with a facility when possible
 - Permit Assistance Visits
 - Compliance Assistance Visits

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Public Records

- Nebraska Administrative Code Title 115, Ch. 4
- Almost all documents the NDEQ receives are publicly available records
 - Permit Applications
 - Correspondence/Reports
 - Finalized Orders/Litigation
- Pending legal matters are confidential until complete

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Questions?

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Memo to: Heritage File
From: Joe Francis
Date: 7/25/16

Attached is a document provided by Mark Vess to the Hazardous Waste Site Review Committee at the 7/19/16 meeting. The document concerns the Heritage contract with the Army. Mr. Vess supplied the information in response to a letter to the editor from Laura Olah, Executive Director of Citizens for Safe Water Around Badger and Coordinator, Cease Fire Campaign. The letter was posted on 7/13/16 in the Grand Island Independent.



CONTINUATION SHEET

Reference No. of Document Being Continued

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REPRINT

PIIN/SIIN W52P1J-14-R-0076

MOD/AMD

Name of Offeror or Contractor:

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

STATEMENT OF WORK FOR THE DEMILITARIZATION AND DISPOSAL OF HEXACHLOROETHANE (HC) SMOKE CANISTERS AND SMOKE POTS

1.0 SCOPE:

1.1 The contractor(s) shall provide all the necessary material, equipment, facilities/property, licenses, and personnel to perform demilitarization(demil) by resource, recovery and recycling (R3) for a variety of HC smoke canisters and smoke pots related ammunition and like items including components listed in Section 1.3 of the Scope of Work (SOW). The contractor shall have the ability to store and demil 1,682 short tons of HC Smoke per year at a minimum of 141 short tons per month. Open Burning and/or Open Detonation (OB/OD) are not permitted technologies for any end item(s) or component(s) contained in this SOW.

1.2 The government will accept reutilization. Title and ownership of components are transferred to the contractor for disposition and disposal when the items are fully demilitarized. Best efforts shall be made to recover the maximum material possible from the HC smoke ammunition contained in this SOW. The Government does not guarantee the quantum of recoverable material. The offered unit price reflects full consideration to the contractor for its performance under the contract.

1.3 The SOW covers the following type of explosives for demilitarization:

HC smoke pots (ground and floating) and related packaging material:

Ground M1 (DODIC K865), M2 (DODIC K876), M5 (DODIC K866) and MK3 (DODIC K874)

Floating M4 (DODIC K867)

HC smoke canisters and related packaging material:

M1 (DODICs C396 and D445)

M2 (DODIC D450)

2.0 Referenced Documents:

Title 15 Code of Federal Regulation (CFR), Part 772, Steps to Export Administration Regulation (EAR) and Part 774, The Commerce Control List

Title 22 CFR, Part 121, The United States Munitions List

DOD Manual 4160.28, Volume 1-3, Defense Demilitarization, 7 Jun 11

DOD 4145.26M, DOD Contractors Safety Manual for Ammunition and Explosives, 13 Mar 08

DFARS 252.223-7002, Safety Precautions for Ammunition and Explosives

DFARS 252.223-7003, Change in Place of Performance Ammunition and Explosives

U.S. Army Environmental Hygiene Agency Technical Guide No.146, 30 Sep 91, Subject: Pentachlorophenol-Treated Materials

DODI 4140.62, Material Potentially Presenting an Explosive Hazard, 25 Nov 08 w/ ch 1 19 Feb 14

Title 29 CFR, Part 1910.119, Process Safety Management of Highly Hazardous Chemicals

DoD 5100.76M, Physical Security of Sensitive Conventional Arms, Ammunition and Explosives (AA&E), 17 Apr 12

DoD 6055.09M Volume 7, DoD Ammunition and Explosives Safety Standards: Criteria for Unexploded Ordnance, Munitions Response, Waste Military Munitions and Material Potentially Presenting an Explosive Hazard, 4 Aug 10

Title 40 CFR, Parts 260-268, Protection of the Environment

Clean Air Act and Clean Air Act Amendments 42 USC section 7401 et seq,

Clean Water Act, 33 USC section 1251 et seq,

Resource Conservation and Recovery Act (RCRA) Solid Waste Disposal Act, 42 USC section 690 et seq.

SB 742-1, Ammunition Surveillance Procedures, 1 Sep 2008

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PIIN/SIIN W52P1J-14-R-0076

MOD/AMD

Name of Offeror or Contractor:

3.0 Definitions/Interpretations:

For the purpose of the SOW the following definitions/interpretations apply:

3.1 Cardinal Principle of Ammunition and Explosive Safety Limit exposure to a minimum number of personnel, for a minimum amount of time, to the minimum amount of hazardous material consistent with safe and efficient operations.

3.2 Chain of Custody The activities and procedures taken throughout the inspection, re-inspection and documentation process to maintain positive control of Material Potentially Presenting an Explosive Hazard (MPPEH) to ensure the veracity of the process used to determine the status of material as to its explosive hazard. This includes all such activities from the time of collection through final disposition

3.3 Commerce Control List (CCL) A list of items under the export control jurisdiction of the Bureau of Industry and Security, US Department of Commerce. Note that certain additional items described in part 732 of the EAR are also subject to the EAR. The CCL is found in Supplement No. 1 to part 774 of the EAR.

3.4 Decontamination - The process of making an item safe for use or handling by unprotected personnel and harmless to all properties and surroundings by destroying, neutralizing, making harmless, or removing energetic/explosives or chemical material clinging to or around it.

3.5 Demilitarization (DEMIL) - The act of eliminating the functional capabilities and/or inherent military design features from DOD personal property. Methods and degree range from removal and destruction of critical features to total destruction by cutting, crushing, shredding, melting, burning, etc. DEMIL is required to prevent property from being used for its originally intended purpose and to prevent the release of inherent design information that could be used against the United States. DEMIL applies to material in serviceable and unserviceable condition.

3.6 Designated Disposition Authority (DDA) Appointed DoD officials authorized to declare unused military munitions as Waste Military Munitions (WMM) except in the case of an explosives or munitions emergency, abandoned munitions, or a declaration by the Authorized Military Official (AMO). DDAs are responsible for evaluating munitions that are excess to current requirements or otherwise no longer part of the active inventory for safety, other uses, R3 possibilities, and treatment.

3.7 Disposal The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

3.8 Disposition The process of reusing, recycling, converting, redistributing, transferring, donating, selling, demilitarizing, treating, destroying, or fulfilling other end of life tasks or actions for DOD property.

3.9 Documentation of the Explosives Safety Status of Material Documentation of the determination of the materials explosive safety status must state either that the material does not present an explosive hazard and is consequently safe from an explosives safety perspective for transfer within or release from DOD control, or that it is hazardous with the known or suspected explosive hazards stated and is only transferable or releasable to a qualified receiver.

3.9.1 Material Potentially Presenting an Explosive Hazard (MPPEH) Material potentially containing explosives or munitions (e.g., munitions containers and packaging material; munitions debris remaining after munitions use, demilitarization, or disposal; and range-related debris); or material potentially containing a high enough concentration of explosives that the material presents an explosive hazard (e.g., equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization, or disposal operations). Excluded from MPPEH are munitions within the DOD-established munitions management system and other items that may present explosion hazards (e.g., gasoline cans and compressed gas cylinders) that are not munitions and are not intended for use as munitions.

3.9.2 Material Documented as Safe (MDAS) MPPEH that has been assessed and documented as not presenting an explosive hazard and for which the chain of custody has been established and maintained. This material is no longer considered to be MPPEH. NOTE: ONLY MDAS MAY BE RELEASED TO THE GENERAL PUBLIC.

3.9.3 Material Documented as an Explosive Hazard (MDEH) (formerly referred to as material documented as hazard, or MDAH) MPPEH that cannot be documented as MDAS, that has been assessed and documented as to the maximum explosive hazards the material is known or suspected to present, and for which the chain of custody has been established and maintained. This material is no longer considered to be MPPEH. NOTE: MDEH MAY ONLY BE RELEASED TO A QUALIFIED RECEIVER.

3.10 Explosive Hazard A condition where danger exists because explosives are present that may react (e.g., detonate, deflagrate) in a mishap with potential unacceptable effects (e.g., death, injury, damage) to people, property, operational capability, or the environment.

CONTINUATION SHEET

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Name of Offeror or Contractor:

- 3.11 Explosive Safety A condition where operational capability and readiness, people, property, and the environment are protected from the unacceptable effects or risks of potential mishaps involving military munitions.
- 3.12 Full Rate Demil Granted after acceptance of the Ammunition Demilitarization and Disposal Plan (ADDP) and after a successful walkthrough of the contractors proposed demilitarization operation, the contractor may begin a rate of demilitarization as determined by schedule and complying with the Cardinal Principle of Ammunition and Explosive safety and requirements; thereby considered consistent production at or above the process rate quantities, as defined by the contractor's planned demilitarization schedule.
- 3.13 Incineration - Combustion of Propellant, Explosive, and/or Pyrotechnics (PEP) or explosive ordnance with control of combustion air, containment of the combustion reaction in an enclosed device, and control of emission of gaseous and particulate combustion products in accordance with (IAW) Federal, State, and local laws, ordinances, codes, and regulations.
- 3.14 Low Rate Demil The contractor shall have the privilege prior to ADDP acceptance for equipment testing and calibration efforts using minimum quantities to meet their anticipated processing schedule.
- 3.15 Munitions List Item (MLI) - Any item contained on the US Munitions List (USML) listed in Title 22 CFR 121.
- 3.16 US Munitions List (USML)- A list, published by the Department of State in Title 22 CFR 121 which delineates the articles, services and related technical data designated as defense articles and defense services.
- 3.17 Military Munitions All ammunition products and components produced or used by or for the US Department of Defense (DOD) or the US Armed Services for national defense and security, including military munitions under the control of the DOD, the US Coast Guard, the US Department of Energy (DOE), and the National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons program after all required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.
- 3.18 Mutilation (MUT) The act of making non-DEMIL required MLI or Commerce Control List Item (CCLI) unfit for its intended purpose by cutting, tearing, scratching, crushing, breaking, punching, shearing, burning, neutralizing, etc..
- 3.19 Qualified Receiver Entities that have personnel who are, or an individual who is, trained and experienced in the identification and safe handling of used and unused military munitions, and any known or potential explosive hazards that may be associated with the MPPEH/MDEH they receive; and are licensed and permitted or otherwise qualified to receive, manage, and process MPPEH/MDEH.
- 3.20 Recycle The reuse of the item/material for an entirely different purpose than originally designed/intended and normally requiring some form of reprocessing.
- 3.21 Reutilization (Reuse) - The reuse of the material, or any component for its original intended purpose. Reuse will be accepted on a case-by-case basis when it supports United States, Department of Defense approved munitions programs.
- 3.22 Transferred within or Released from DOD Control A receiver has acknowledged receipt of MDEH or MDAS material by signed documentation (e.g., DD Form 1348-1A Issue Release/Receipt Document, or an equivalent document) and has taken physical custody of the MDEH or MDAS from the Department of Defense.
- 3.23 Treatment - Any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.
- 3.24 Waste Military Munitions (WMM) A military munitions is a waste military munitions if it has been identified as: (1) a solid waste as described in regulation 40 CFR 266.202; or (2) a hazardous waste per 40 CFR 261 Subpart C (characteristics waste) or Subpart D (listed waste). In general, WMM are hazardous waste when they exhibit the characteristic of ignitability, corrosivity, reactivity, or toxicity; or are listed as a hazardous waste.

4.0 REQUIREMENTS:

- 4.1 The contractor shall establish and submit an Ammunition and Explosives Safety Program Plan IAW CDRL A001, for the receipt, storage, handling, demilitarization, and disposal of a variety of HC smoke ammunition delivered to the contractor by the Government at the contractor site(s) IAW specific guidance provided in this SOW and DOD 4145.26M, DOD Contractors Safety Manual for Ammunition and Explosives. The contractor shall have the ability to store and demil 1,682 short tons of HC Smoke per year at a minimum of 141 short tons per month.

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For any fill-ins that are not applicable, the offeror must acknowledge by indicating N/A. The proposal must also include computation for use of Government-Owned Property, if applicable as stated in section L.3.3.

- b. One (1) paper copy and two (2) CD Copies of each volume of the proposal.
- c. A total of 2 CDs should be submitted in regards to this RFP. CD copies must mirror the submitted hard copies. If the CD copy and the hard copy differ, the hard copy supplied will be used for the evaluation.
- d. Each CD must clearly be marked with the Offerors Name. CDs submitted should be compiled using the Microsoft Office for Windows application suite, submitted on a single write CD-ROM to prevent accidental erasure of the data therein, and formatted for an IBM PC compatible computer. Alternatively, files may be provided in a Portable Document Format (.pdf).

L.2.2. FORMAT FOR PROPOSAL**L.2.2.1 Phase Structure:**

Each proposal shall be submitted in separate parts as set forth below:

- a. Volume 1 Technical Proposal. Maximum Page Allowance is 50 pages.
- b. Volume 2 Past Performance Information

Cover	Company Name, CAGE, and DUNS	Volume 2 one (1) page
Section 1	Contract References	up to five (5) contract references
Section 2	Past Performance Questionnaires	Sections IIA & IIB completed only
Section 3	Contract Reference Scope of Work	max two (2) pages for each reference
Section 4	Adverse Contract Performance	No page limitations

c. Volume 3 Price Proposal

- d. One signed copy of the cover page of the solicitation, Standard Form 33, and a signed acknowledgement of all amendments. Offerors are cautioned to ensure all solicitation and/or amendment fill-ins and blanks that require information are completed with their proposal.

L.2.2.2 Length: Each part shall be as brief as possible, while still including all required information, and shall not exceed the maximum number of pages listed above for each volume. The page count will be made by counting the pages from left to right, consecutively. Pages that exceed the page limitation will not be evaluated. Annexes, documentation, and attachments will count against the page limitations. If pages are printed on both sides, each side will count as a separate page. The following will not count against page limitations: Phase title pages, table of contents pages, cross-referencing pages, acronym lists, and page dividers (used to separate proposal sections). Pages should not exceed 8.5 inches in width by 11 inches in length; foldout pages depicting such items as sketches, factory floor layouts, etc., may be used, with each fold counted as one page. The font used shall not be less than 12 point. (Font smaller than 12 point is ONLY acceptable in graphics, sketches, tables, charts, price matrix, etc., but must be readable without magnification.) The Offeror is responsible for including sufficient details to permit a complete and accurate evaluation of the proposal. The Offeror shall provide a proposal that, at a minimum, addresses the requirements stated in Section M. Each proposal shall address the requirements of the Statement of Work (SOW), Technical Data Package (TDP) and any other information required by the solicitation.

L.3. Specific Proposal Instruction: Offerors are responsible for including sufficient details to permit a complete and accurate evaluation. All information and data provided shall be specific to HC Smoke. In response to the solicitation, the offeror must address the following:

L.3.1 Volume 1 Technical:

The Offeror shall submit a detailed proposal that demonstrates a clear understanding and ability to comply with the requirements of the solicitation for the demilitarization of the HC Smoke ammunition listed herein.

The proposal shall include:

1. Detailed description of the demilitarization and disposal process including facilitization, permitting and operations that demonstrate understanding of the critical operations and support requirements of demil of HC Smoke ammunition; disposal/treatment methods planned for all identified waste streams, components, and packaging; environmental permits EPA identification number for the proposed demil process and facilities are available to perform demil at time of award. The technical proposal shall identify the place of performance for each component.

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2. Detailed description of storage capacity and monthly demil rate that shows that the offeror has the ability to store and demil 1,682 short tons of HC Smoke per year at a minimum of 141 short tons per month.

3. The offeror shall submit a detailed description demonstrating understanding and compliance with the applicable contractual and regulatory safety requirements including but not limited to the current DOD 4145.26 M (including Federal, State, and Local regulatory guidance) for all families of ammunition included in this solicitation, which is consistent with the proposed technical approach. Offeror will identify Safety Person(s), indicating qualifications and experience (to include relative to ammunition and explosives (AE)). Offeror will identify safety and AE-related training planned or completed consistent with the technical approach.

4. The offeror shall submit a proposal demonstrating understanding and compliance with DOD 5100.76 M, Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives (AA&E), for storage areas, accountability procedures, demil areas and security expertise in performing demil operations or other related expertise, consistent with the proposed technical approach.

5. The offeror shall submit a plan demonstrating the ability to comply with all Federal, State, and local environmental regulations applicable to the chosen demil process, as well as an approach for managing all hazardous and non-hazardous waste streams generated during the demil operations. The offeror will identify the treatment, storage, and/or disposal of those waste streams, and indicate the permits(s) and/or licenses(s) required to be in place at time of award. The offeror shall provide evidence that all environmental permits e.g., EPA identification number needed for this proposed demil process are in place and that the facilities are in place to begin performance of the demilitarization at time of award. The plan shall also include regulatory required employee environmental training.

6. The offeror shall submit a detailed description of their quality management system demonstrating understanding and compliance with the contractual quality inspection requirements addressing technical and manufacturing aspects of ammunition demilitarization and the materials utilized.

Army review of the contractors technical proposal, any of its standard operating procedures, or any of its other technical documentation is intended to ensure only that the contractor has the technical ability to perform the contract. Army review is not intended to be a warranty that the contractors plans, operations, etc., have met all required health, safety, and environmental laws and regulations. It remains the contractors responsibility to ensure compliance with all requirements of law and regulation, including, to the extent applicable, OSHA requirements. Additionally, as the Army does not create the actual working conditions, the Army assumes no responsibility for compliance with any such health, safety, and environmental laws and regulations.

L.3.2 Volume 2 Past Performance:

Past performance information is evaluated as a predictor of future contract performance. The Government will assess the degree of confidence it has that the Offeror will successfully complete the requirements in accordance with the contract terms based on the Offeror's demonstrated record of recent, relevant performance.

L.3.2.1 Contract References

Contract references shall represent recent, relevant performance under Department of Defense (Air Force, Army, Navy, etc) contracts.

Recent contracts are defined as prime contracts, task orders, delivery orders, or subcontracts where services or deliverables were performed, or are still being performed, anytime within three (3) years of issuance of this solicitation. The Government reserves the right to consider any significant past performance after the solicitation closing date and prior to award.

Relevant means performance demonstrating that the Offeror has performed on contracts involving the demilitarization and disposal of energetic munitions or munitions constituents that are the same or similar in scope, complexity, and magnitude as described in the solicitation. The degree to which contracts are comparable complexity, size or value to the proposed effort may also be considered in determining a level of relevance.

References that include open burning or open detonation of ammunition demilitarization are not relevant to this solicitation and shall not be submitted as a reference.

References provided on classified contracts cannot be verified and will not be evaluated.

It is recommended that the Offeror limit references to those involving performance as a prime contractor or first tier subcontractor.

L.3.2.2 Past Performance Questionnaire

The contract information to be provided with each contract reference is on the attached Past Performance Questionnaire (PPQ). The offeror must complete PPQ Sections IIA and IIB for each contract reference and send copies of the PPQ to the respondent(s) point of contact (POC) as identified in IIA in a timely manner. The Offeror shall include these documents in Volume 2, Section 3 of the proposal. The PPQ respondent(s) will send the completed questionnaire directly to the Government POC as shown in Section IV of the PPQ.

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Name of Offeror or Contractor:**SECTION M - EVALUATION FACTORS FOR AWARD**

It is the responsibility of the offeror to provide complete and thorough explanations for each factor/subfactor proposal submitted as required by Section L. Each factor/subfactor proposal is required with the initial proposal, and the Government is not obligated to make another request for the required information.

M.1. Basis for Award:

The Government will evaluate proposals submitted in accordance with this section and will make a determination considering the following factors: Technical, Past Performance, and Price. Best Value Tradeoff Processes in accordance with FAR 15.101-1 will be utilized to select the successful offeror. Award will be made to the offeror that provides the best value to the Government considering the evaluation criteria state herein.

a. The Government anticipates awarding a Firm Fixed Price (FFP) Base contract with two (2) annual options 100% each year. The offeror whose proposal provides the overall best value to the Government, considering both price and non-price factors, will be awarded the contract.

b. All proposals received pursuant to this solicitation will be evaluated in the same manner.

M.1.1. Discussions:

a. Each proposal should contain the Offerors best terms for award of a contract under the solicitation. The USG intends to award a contract without discussions. The Contracting Officer may contact Offerors for clarification, as described in FAR 15.306(a) and FAR 52.215.1, without opening discussions. However, the USG reserves the right to conduct discussions and to permit Offerors to revise their proposals if determined necessary by the Contracting Officer.

b. If the Contracting Officer determines discussions are necessary, they will be held in accordance with FAR 15.306.

M.1.2. Other Evaluation Considerations:

a. Proposals that are unrealistic in terms of technical or schedule commitments, unrealistically low in price, or contain unbalanced prices, may be considered an indication of a lack of understanding of the complexity and risk in the contract requirements and may be determined unacceptable.

b. Pre-award surveys will be conducted.

M.1.3 Order of Importance:

Technical is slightly more important than Past Performance, and Past Performance is slightly more important than Price. Non-price factors, when combined are significantly more important than Price.

Although price is not the most important factor, it could become a controlling factor if offers under the non-price factors are determined to be relatively equal. The Government reserves the right to make an award to other than the offeror who submits the lowest overall evaluated price, using a Best Value trade-off analysis method of procurement.

The offerors technical proposal will be rated separately from the risk associated with its technical approach. The technical rating shall evaluate the quality of the offerors technical proposal to determine if it meets the Governments requirement. The risk rating shall consider the risk associated with the technical approach.

M.2. Technical:

The Government will evaluate the technical proposal to determine if the offeror demonstrates a clear understanding and ability to comply with the requirements of this solicitation. The Government will also evaluate the Offerors ability to meet the requirements schedule, based on processing rates, facilities, and availability. Overall, the proposal shall demonstrate an in-depth understanding of the critical operations and support requirements of the demil process. Any failure to demonstrate the above acceptable criteria will result in the submission being rated unacceptable. The Government will evaluate the offerors proposal on completeness in the following areas:

1. The demilitarization and disposal process including facilitization, permitting, and operations for its capabilities and understanding of the critical operations and support requirements of the demil process; disposal/treatment methods for all identified waste streams, components, and packaging derived from the demil process; environmental permits EPA identification number provided for the proposed demil process and facilities are available to perform demil at time of award. The place of performance for each component specified.

2. Determine that the proposed storage capacity and monthly demil rates can be achieved and fulfill the requirements of the contract. Assess the offerors level of understanding of the receipt, demil process, disposition of product(s), and the associated contract milestones (while maintaining compliance with DOD 4145.26M).

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Name of Offeror or Contractor:

3. The extent to which the offerors demonstrated a detailed knowledge of safety requirements applicable to the demilitarization requirements of this solicitation. Offeror demonstrated compliance with the applicable contractual and regulatory safety requirements including but not limited to the current DOD 4145.26 M (including Federal, State, and Local regulatory guidance) for all families of ammunition included in this solicitation. Offeror identified a safety person(s); and provided qualification and experience (to include relative to ammunitions and explosives (AE)). Offeror identified safety and AE-related training planned or completed consistent with the technical approach.
4. The extent to which the offerors demonstrated a detailed knowledge of security requirements applicable to the demilitarization requirements of this solicitation. Offeror demonstrated compliance with applicable contractual and regulatory security requirements including but not limited to DOD 51007.76M for storage areas, accountability procedures, demil areas and security expertise in performing demil operations or other related expertise, consistent with the proposed technical approach for all families of ammunition included in this solicitation.
5. The extent to which the offerors demonstrated a detailed knowledge of environmental requirements applicable to the demilitarization requirements of this solicitation. The offerors plan demonstrates the ability to comply with all Federal, State, and local environmental regulations applicable to the chosen demil process, as well as an approach for managing all hazardous and non-hazardous waste streams generated during the demil operations. The offeror identified the treatment, storage, and/or disposal of those waste streams, and indicated the permits(s) and/or licenses(s) e.g., EPA identification number required to be in place at time of award. The offeror provided evidence e.g., EPA identification number that all environmental permits needed for this proposed demil process are in place and that the facilities are in place to begin performance of the demilitarization at time of award. The plan included regulatory required employee environmental training.
6. The extent to which the offerors demonstrated a detailed knowledge of quality inspection requirements and provided description of their quality management system addressing the technical and manufacturing aspects of ammunition demilitarization with respect to the contractual quality requirements.

M.2.1 Technical Ratings:

The technical ratings for the Technical Factor will be as follows:

OUTSTANDING (BLUE): Proposal meets requirements and indicates an exceptional approach and understanding of the requirements. The proposal contains multiple strengths and no deficiencies.

GOOD (PURPLE): Proposal meets requirements and indicates a thorough approach and understanding of the requirements. Proposal contains at least one strength and no deficiencies.

ACCEPTABLE (GREEN): Proposal meets requirements and indicates an adequate approach and understanding of the requirements. Proposal has no strengths or deficiencies.

MARGINAL (YELLOW): Proposal does not clearly meet requirements and has not demonstrated an adequate approach and understanding of the requirements.

UNACCEPTABLE (RED): Proposal does not meet requirements and contains one or more deficiencies and is unawardable.

M.2.2 Risk Ratings:

The Risk ratings for the Technical Factor will be as follows:

Low: Has little potential to cause disruption of schedule, increased cost or degradation of performance. Normal contractor effort and normal Government monitoring will likely be able to overcome any difficulties.

Moderate: Can potentially cause disruption of schedule, increased cost or degradation of performance. Special contractor emphasis and close Government monitoring will likely be able to overcome difficulties.

High: Is likely to cause significant disruption of schedule, increased cost or degradation of performance. Is unlikely to overcome any difficulties, even with special contractor emphasis and close Government monitoring.

M.3. Past Performance:

Past performance information is evaluated as a predictor of future contract performance. The Government will assess the degree of confidence it has that the Offeror will successfully complete the requirements in accordance with the contract terms based on the offeror's demonstrated record of recent, relevant performance.

The Government may consider the currency, degree of relevance, source and context of the past performance information it evaluates as

Nebraskans deserve healthy alternative to incineration

Posted: Wednesday, July 13, 2016 12:00 am

Given a new hazardous waste incinerator has not been approved anywhere in the U.S. for a generation, I am concerned and surprised to read about the massive incinerator proposed for the former Cornhusker Army Ammunition Plant west of Grand Island. If approved, it would process up to 15,000 tons of munitions per year, including HC smoke grenades. Zinc oxide (military designation, HC or HC smoke) is a toxic chemical warfare obscurant.

There are proven and readily-available alternatives to incineration, due in good part to the need for safe, cost-effective means to dispose of our nation's chemical weapons stockpile. These technologies are not only safer for your community, but they are also safer for the family members who may be employed for this work.

Like you, the environment in our rural Wisconsin farming community has been profoundly damaged by historical activities at a nearby former Army ammunition plant. This experience led us to help organize a national campaign calling for an end to open air burning and incineration of hazardous waste munitions everywhere.

Already, 56 environmental, health, labor, social justice and veterans service organizations have endorsed the Cease Fire Campaign goal statement. Please join us in demanding the same advanced technologies that have been deployed in non-rural affluent communities elsewhere. This is not the time for the Midwest Nice.

By Laura Olah, executive director,

Citizens for Safe Water Around Badger

Coordinator, Cease Fire Campaign

Merrimac, Wis.

Hazardous Waste Site Review Committee Meeting Agenda & Minutes

August 23rd, 2016

Hazardous Waste Site Review Committee Meeting

August 23, 2016, 4:00 PM CDT

Grand Island Public Library

Meeting Room Center

211 N Washington St.

Grand Island, NE 68801

AGENDA

- I. Call to Order**
- II. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**
- III. Roll Call**
- IV. Review and Approval of July 19, 2016 Meeting Minutes**
- V. Review of Agenda and Update of Notebooks**
- VI. NDEQ Update**
- VII. Review Draft Report**
 - A. Review and Modify Format**
 - B. Generate Issues, Concerns, and Conclusions for Factors 1-8**
- VIII. Comments, Feedback, Next Steps and Adjourn**
 - A. Member Comments**
 - B. Meeting Feedback**
 - C. Summary of Next Steps**
 - D. Public Comments**
 - E. Adjourn**

August 23, 2016, 4:00 PM CDT
 Grand Island Public Library
 Meeting Room Center
 211 N Washington St.
 Grand Island, NE 68801

I. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)

The Chair, John Turnbull, called the meeting to order at 4:00 PM Central Daylight Time. Chairman Turnbull verified public notice and availability of copy of law in the meeting location

II. Roll Call

All twelve appointed committee members were present; the quorum was met.

First Name	Last Name	Attendance
Teresa	Anderson	X
Greg	Baxter	X
Karen	Bredthauer	X
Chris	Exstrom	X
Alex	Harness	X
Brad	Kloss	X
Chad	Nabity	X
Dan	Purdy	X
Jon	Rosenlund	X
Casey	Sherlock	X
Timothy	Smith	X
John	Turnbull	X

Others in attendance: Jim Macy-Nebraska Department of Environmental Quality (NDEQ), Mark Vess-Heritage, Joe Francis-NDEQ, Morgan Leibrandt-NDEQ, Dan LeMaistre-NDEQ,, Mark DeKraai – University of Nebraska Public Policy Center (UNPPC), Quinn Lewandowski-UNPPC, and a few unnamed members of the public

III. Review and Approval of July 19, 2016 Meeting Minutes

Karen Bredthauer made a motion to approve the July 19, 2016 meeting minutes. The motion was seconded by Casey Sherlock; the motion passed by roll call vote with no abstaining votes and no dissensions. Committee member Alex Harness was absent at the time of this vote.

- **Yea:** Anderson, Baxter, Bredthauer, Exstrom, Harness, Kloss, Nabity, Purdy, Rosenlund, Sherlock, Smith, and Turnbull

- **Nay:** None
- **Abstentions:** None

IV. Review of Agenda and Update of Notebooks

Mark DeKraai gave a brief overview of the meeting's agenda. Joe Francis worked with committee members to update their notebooks.

V. NDEQ Update

A. Opening Address - Jim Macy, NDEQ Director

Jim Macy thanked committee members for their service and time dedicated to this committee. He reiterated that the purpose of establishing this committee is to provide early public involvement for the consideration of the proposed facility. While general public attendance at the meetings has been sparse, NDEQ ran public notices of the meetings, put all information and advertised on their website. They realize that the majority of newspaper readers don't carefully read the public notice section so they ran separate news releases. Jim Macy took the time to thank the Grand Island Independent for running those news releases and for the additional stories they ran. The goal of informing the public and inviting them to participate continues to be met.

NDEQ looks forward to receiving the report. After the final report is submitted, the committee's work will be over and according to the statute the committee "shall have no further duties." However, if there are any substantial changes from what Heritage has to this point described in the meetings, the director can ask the committee to consider the changes which could have impacted the final report.

As NDEQ described in the first meeting, once the committee has submitted the report NDEQ will forward the committee's report, along with any responses Heritage may provide to the committee report, and a copy of the Heritage applications to the Hall County Board. The Hall County Board must approve the proposal before NDEQ begins its technical review. NDEQ relies on the committee to ensure the final committee report accurately characterizes all members' questions and concerns.

B. Clarification on Compliance Requirements and Financial Assurance - Morgan Leibrandt and Dan LeMaistre, NDEQ

With regard to compliance inspection concerns, the program has a yearly inspection commitment for routine inspections. During the startup phase of the project, the inspections will be more frequent. Periodically through the life of the five year RCRA permit there will be testing to make sure the results meet all standards.

Clean Harbors, another hazardous waste incinerator in the in Kimball, NE, setup a real-time process and emissions information system that allows NDEQ access to real-time and historical data at any time. Heritage has agreed to provide the same type of system. NDEQ air and water will also hold inspections with Heritage. Additionally, NDEQ will

respond to any complaints about Heritage. Any ongoing permits will also be inspected by whatever entity is providing the permit.

Dan LeMaistre then took the time to further clarify liability requirements for Heritage. The Resource Conservation and Recovery Act (RCRA) requires that all hazardous waste treatment, storage and disposal (TSD) facilities demonstrate financial responsibility for accidental occurrences that may cause harm to a third party. There are two types of accidental occurrences, sudden and nonsudden. Sudden accidental occurrences are events that are not continuous or repeating in nature, such as fires or explosions. All TSD facilities, like Heritage, must maintain funds of at least one million dollars per occurrence and no less than two million dollars annually.

Nonsudden accidental occurrence are events that occur over an extended period of time from either a continuous release or repeated release. Heritage does not have any financial responsibility requirements for nonsudden accidental occurrences because the requirements only apply to facilities that operate land management units (landfills, surface impoundments, etc.). Any facility that does have a financial responsibility requirement for nonsudden accidental occurrences must maintain funds of at least three million dollars per occurrence and no less than six million dollars annually.

A facility can demonstrate that liability funds are available through several financial mechanisms: financial test, letter of credit, surety bond (insurance) or trust fund. Many facilities maintain a surety bond to demonstrate compliance with their accidental occurrence financial assurance requirements. It is important to note that the listed financial requirements are the minimums established by RCRA and addition assurance may be necessary if a regulating agency determines that the level of risk necessitates additional funds.

VI. Review Draft Report

A. Review and Modify Format

i. Hazardous Waste Site Review Committee Final Report

Mark DeKraai presented the draft format of the report. The report will talk about the Nebraska review process so the reader can understand what went on throughout this process: the factors that were reviewed, notice of intent, and description of local site review committee. The next section of the report will be a factual orientation of the committee's work and identify the major issues and concerns. The rest of the report flows sequentially by committee meeting capturing meeting agenda and minutes which include the questions & answers, presentation materials, and other meeting materials. Appendices will include the statutes, Notice of Intent, and terms and acronyms.

It was proposed the title be changed to:

Hazardous Waste Site Review Committee Final Report

*For the Hall County, Nebraska Site for the Heritage Disposal and Storage, LLC,
Hazardous Waste Storage and Incinerator Facility
October 18, 2016*

This proposed change was accepted, and will be reflected on the next draft of the report.

Greg Baxter, Chris Exstrom, and Jon Rosenlund proposed that the “*Committee Conclusions and Recommendations*” section be changed. The new section title would be “*Committee Findings and Comments.*” This proposed change was accepted.

Use of a table was proposed to better cross reference issues and concerns, the response or answer, and what meeting minutes one can refer to if you want more information. This table would be used for each of the factors in the body of the report under the “*Committee Findings and Comments*” section. After discussion, the group accepted a format similar to the example below be used:

With regard to site characteristics, the committee identified the following significant issues and concerns:

<i>Issue or Concern</i>	<i>Summary of Response or Answer</i>	<i>Committee Comment</i>
<i>What method will be used to restrict wildlife access to evaporation ponds?</i>	<i>The water would be fully fenced and there will be bird prevention on top of evaporation ponds as well. Minutes 5/24, p.8</i>	<i>Adequate safeguards will be in place to protect wildlife.</i>

The committee comment section of the table will be a place where the committee can identify if the response or answer or answer is adequate.

B. Generate Issues, Concerns, and Conclusions for Factors 1-8

Any questions were placed in the question and answer section below

Economic Considerations:

It was proposed that the section contain some reference to the fact that Heritage has been in their location since 2003. The committee agreed that information that the Army contract application and selection process required a section analyzing Heritage’s financial capacity that included financial resources, insurance, investments, etc. It was also suggested that short-term and long-term and long benefits on the economy should also be included in the report.

Facility Functions:

Committee members suggested the wording that “water suppression system” be changed to “fire suppression system.”

Technology:

The committee would like to note the difference between a rotary kiln vs. open burn and state that the best available control technology (BACT) is a requirement of the contract. Heritage already has the technologies that it is going to use, and is just analyzing the best selection of the lineup to give the least emissions, least bad actors, and best by-products. The engineers are currently looking at methods in the emission control system to drop the particulate out. It is not that the engineering is not complete, it is about maximizing BACT – Best Available Control Technology.

It was pointed out that Zinc Oxide needs to be corrected to Zinc Chloride. The report will need to designate what chemical transformations are happening with this process; the handout provided at one of the first meetings provided a lot of this information (Table 5.2 in the HC Smoke Handout).

Jon Rosenlund suggested that the report locate Technology and Environmental Quality sections next each other. This suggestion was accepted by the committee

Site Characteristics:

The committee agreed to move this section to the beginning of the factors.

Environmental Quality:

Anticipated water use was suggested to be included in the report. It was also mentioned that the points of surface and ground water protection were other important pieces to include.

Transportation Considerations:

The Army is handling the entire transportation portion. The Army bomb depots will load the materials on the trucks. The Army bomb depots will be responsible for maximizing the load without overloading or unbalancing the load. Heritage's responsibility will start as soon as truck hits the Heritage gate. Trucks bringing in or taking away shipments will use the most efficient, least populated, minimal risk, etc. route.

The remaining two factors (Plans for Emergencies and Enforcement Provisions) were deferred until the September meeting.

C. Questions and Answers

Are you (NDEQ) notified if the insurance isn't paid?

It is reviewed and has to be maintained to hold the permit.

In regards to bonding, I would like more information on what is required for bonding. How does that bonding hold, if a third party comes in? From a state perspective, what are the legal insurance commitments of that? From the regulatory perspective, are the

insurance company bond for a period of time if the company changes hands (to stand by a commitment)?

With Heritage being a contractor for the U.S. Government, the U.S. Government is a service provider under their insurance; the U.S. Government mandates the minimum coverages. Heritage already exceeds those. Their lender requires bonding of the facility which protects the banks, which also protects this mechanism. The U.S. Government, the bank, and NDEQ will all be notified if Heritage is not paying its insurance. The U.S. government will be paying Heritage for this contract, and require checks and balances. Heritage's insurance package covers employees, accidents, civilians, incidents, environmental considerations and much more. This contract is a part of a very big package, and Heritage takes pride in ensuring that it has met all requirements. Heritage is continually consulting with a law firm (Baird Holm, LLP), and this law firm will help draft the legal documents that will bind them to the state of Nebraska as far as all cleanup processes, etc. NDEQ will then be looking closely at the language and make sure that meets regulatory compliance.

If or when Heritage closes its doors the facility would be inspected to see if it would be capable of a clean close. If the facility is not capable of a clean close, mechanisms would be put into place to have money available for any possible cleanup in the future. The bottom line is that the mechanisms are under control of NDEQ. The facility cannot do away with mechanisms such as bonds. Insurance cannot pull the policy away without DEQ being involved.

Does Heritage have the financial capacity to carry out the project?

The Army Application included a financial portion that included cost, investments, etc. Heritages financial capacity was a part of this selection process in getting awarded the contract.

Will it be an evolutionary technology (as technology improves you improve with it), or will it be a set your method and continue to run that method?

There will always be a constantly evolving situation to increase safety and efficiencies. The design includes the flexibility to process other materials in the future. Heritage's contract is for about 15-20% of the stockpile. Currently we are capitalizing on the technology that General Dynamics already uses, and will have the most compliant thermal treatment plant at the time. Federal regulations require, as equipment ages and it has to be rebuilt or replaced you have to look at BACT, which means Heritage will have to progressively review its options as equipment ages or has to be replaced.

Can real-time access data be provided? And is it an actual requirement?

It can be provided, and it isn't an official requirement. Heritage has been a self-reporter since its opening, and Heritage believes it to be the right way to do business. Heritage sees having the real-time data access available to NDEQ as a liability reduction for both the State and for Heritage.

VII. Comments, Feedback, Next Steps and Adjourn

A. Member Comments

Chairman John Turnbull and member Dan Purdy made a request that the below diagrams be shared at the next meeting and be made available and be included in the report:

1. Concept diagram of rotary kiln
2. Facility diagram

B. Meeting Feedback

No additional meeting feedback was given. Due to time constraints, discussion of the final two factors – Plans for Emergencies and Enforcement Provisions - will be continued at the September 20th meeting.

C. Summary of Next Steps

i. Remaining Meeting Schedule

1. Tuesday, September 20th – 4:00 PM – 6:00 PM, Grand Island Public Library
2. Wednesday, October 12th - 6:00 PM, TBA

D. Public Comments

No comments were made or proposed.

E. Adjourn

John Turnbull adjourned the meeting at 6:05 PM CST.

Hazardous Waste Site Review Committee Meeting Presentation
Materials and Handouts

August 23rd, 2016

CONTINUOUS MONITORING REQUIREMENTS FOR HAZARDOUS WASTE INCINERATORS

Incinerators that destroy hazardous waste are generally subject to two federal regulations, 40 CFR 63 Subpart EEE – National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors and 40 CFR 264 Subpart O – Incinerators. These rules specify the minimum operational requirements, emission limitations, testing, recordkeeping, and reporting that all hazardous waste incinerators must meet to demonstrate compliance with the Clean Air Act (CAA) and Resource Conservation and Recovery Act (RCRA). The Nebraska Department of Environmental Quality has adopted these requirements into state regulations.

The main goal of the federal and state rules is to ensure that combustor emissions are controlled to meet technology based or risk based standards. This is accomplished by providing a destruction efficiency of at least 99.99% for organic compounds and the removal of other inorganic compounds by using other air emission control equipment. To support this goal these rules require that the incinerator conduct a test burn of the waste to prove that the incinerator, as built, is capable of meeting set goals. Once the test burn is complete the facility must operate in a manner consistent with their operating conditions during the test. If the facility wants to operate in a different way (e.g. burn different waste, burn at a lower temperature, etc.) they may have to conduct a new test burn to verify that the new operating conditions will still meet all of the federal and state regulatory requirements.

In addition to test burns the facility must keep records proving that they are properly operating the incinerator. The facility will have to monitor operating conditions and emission controls based on the conditions established during the test burn. These parameters can include feed rate, emission rate, temperature, pressure, opacity, etc.

Neither 40 CFR 63 Subpart EEE nor 40 CFR 264 Subpart O requires continuous, real time access. However, Title 128 – Nebraska Hazardous Waste Regulations, Chapter 14, Section 002.09B and 40 CFR 270.30(i)2 requires all hazardous waste permittees to provide access to, at reasonable times, any records required by the permit to the NDEQ. This means that all of the continuous monitoring and recordkeeping provisions will be part of the NDEQ hazardous waste permit and that access to the data needs to be reasonably available to the NDEQ. The NDEQ has determined that it is reasonable to require continuous access to these records. Furthermore, being able to remotely access a continuous monitoring system reduces the amount of time the NDEQ will need to spend onsite reviewing records, minimizing the disruption to the daily operation of the facility during an inspection.

In this case, Heritage Disposal & Storage, LLC has indicated that they are amenable to providing the NDEQ remote access to their continuous monitoring and recordkeeping system. At this time the NDEQ is only asking for access to the data that Heritage is required to continuously monitor and record as will be required by future permitting.

FINANCIAL ASSURANCE REGULATORY SUMMARY FOR RCRA HAZARDOUS WASTE FACILITIES

The Code of Federal Regulations (CFR), Subpart H of Title 40 Part 264 as referenced by Nebraska Administrative Code Title 128- Nebraska Hazardous Waste Regulations, Chapter 21, require operators/owners of hazardous waste Treatment, Storage, and Disposal (TSD) facilities to demonstrate financial responsibility for closure/post-closure care and for liability coverage for accidents during the active life of the facility. The concept of financial assurance is to ensure there are sufficient funds for closure and/or post-closure care that are available when needed to carry out these activities. In the past, some entities involved in environmentally hazardous activities have ceased operating without making sufficient effort to prevent potentially adverse impacts on human health and the environment. The result of public or private entities being unable to pay for environmental protection activities and damages following closure of hazardous waste TSD facilities stems from two basic problems.

First, operators may encounter problems generating funds to cover liabilities, including the costs of environmental protection and remediation. This occurs because the facility no longer has income once it stops accepting waste or has entered bankruptcy. Second, unless entities are required by law to set aside funds planning for the costs of environmental protection, their governing bodies or board of directors may be unwilling to sacrifice other budgetary priorities to pay for the cost of future or uncertain events. The most common and practical approach to resolving these problems is to require entities, involved in activities that could result in environmental degradation (potentially environmentally harmful activities) to commit funds in advance for the costs of closure and/or post-closure care.

Subpart H of Title 40 CFR Part 264 requires TSD facility owners and operators to establish a financial mechanism as evidence of financial ability to pay for the costs of closure and post-closure care of their respective facilities. A financial assurance mechanism is an arrangement whereby a party facing a potential or certain liability pledges or deposits funds so that 1) all anticipated costs will be covered; 2) all funds will be secure over time; and 3) all funds will be available when needed.

The allowable financial mechanisms are: a Letter of Credit; Surety Bonds (two types: a Payment Bond or a Performance Bond); a Trust Fund; a Corporate Financial Test; a Corporate Guarantee; or Insurance.

The amount of financial assurance required is based on cost estimates prepared to estimate the costs of a third-party contractor performing closure activities in accordance with the closure plan approved by the Nebraska Department of Environmental Quality (NDEQ). Closure cost estimates are based on the point in the facility's operating life when closure would be the most expensive. Cost estimates must be adjusted annually for inflation so they are kept current.

TSD facilities must also provide liability coverage for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility and in some cases if the TSD is a disposal facility they are also required to provide liability

coverage for bodily injury and property damage to third parties caused by non-sudden accidental occurrences arising from operations of the facility.

The liability coverage may be demonstrated by an insurance policy that provides liability coverage of at least \$1 million per occurrence with an annual aggregate of least \$2 million annual aggregate for sudden accidental occurrences and at least \$3 million per occurrence with an aggregate of at least \$6 million for non-sudden accidental occurrences. An owner or operator who must meet the requirements of both sudden and non-sudden accidental liability coverage may combine liability coverage into a single per occurrence level of at least \$4 million per occurrence and at least \$8 million annual aggregate.

Hazardous Waste Site Review Committee Meeting Agenda & Minutes

September 20th, 2016

Hazardous Waste Site Review Committee Meeting

September 20, 2016, 4:00 PM CDT

Grand Island Public Library

Meeting Room Center

211 N Washington St.

Grand Island, NE 68801

AGENDA

- I. Call to Order**
- II. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**
- III. Roll Call**
- IV. Review and Approval of August 23, 2016 Meeting Minutes**
- V. Review of Agenda and Update of Notebooks**
- VI. NDEQ Update/Question and Answer**
- VII. Heritage Update/Question and Answer**
- VIII. Review Draft Report**
 - A. Review and Modify Format**
 - B. Generate Issues, Concerns, Questions, Comments, and Findings for Plans for Emergencies and Enforcement Provisions**
 - C. Review Issues, Concerns, Questions, Comments, and Findings for Other Factors**
- IX. Comments, Feedback, Next Steps and Adjourn**
 - A. Member Comments**
 - B. Meeting Feedback**
 - C. Summary of Next Steps**
 - D. Public Comments**
 - E. Adjourn**

September 20, 2016, 4:00 PM CDT
Grand Island Public Library
Meeting Room Center
211 N Washington St.
Grand Island, NE 68801

I. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)

The Chair, John Turnbull, called the meeting to order at 4:00 PM Central Daylight Time. Chairman Turnbull verified public notice and availability of copy of law in the meeting location.

II. Roll Call

Eleven of the twelve appointed committee members were present; the quorum was met.

First Name	Last Name	Attendance
Teresa	Anderson	X
Greg	Baxter	X
Karen	Bredthauer	X
Chris	Exstrom	X
Alex	Harness	X
Brad	Kloss	X
Chad	Nabity	
Dan	Purdy	X
Jon	Rosenlund	X
Casey	Sherlock	X
Timothy	Smith	X
John	Turnbull	X

Others in attendance: Mark Vess-Heritage, Dwight Miller-Heritage, Joe Francis-Nebraska Department of Environmental Quality (NDEQ), Siew Kour-NDEQ, Mark DeKraai – University of Nebraska Public Policy Center (UNPPC), Quinn Lewandowski- UNPPC, and four members of the public

III. Review and Approval of August 23rd, 2016 Meeting Minutes

Greg Baxter made a motion to approve the August 23, 2016 meeting minutes. The motion was seconded by Casey Sherlock; the motion passed by roll call vote with no abstaining votes and no dissensions. Committee member Jon Rosenlund was absent at the time of this vote.

- **Yea:** Anderson, Baxter, Bredthauer, Exstrom, Harness, Kloss, Purdy, Sherlock, Smith, and Turnbull

- **Nay:** None
- **Abstentions:** None

IV. Review of Agenda and Update of Notebooks

Mark DeKraai gave a brief overview of the meeting's agenda. Joe Francis worked with committee members to update their notebooks.

V. NDEQ Update/Question and Answer

Joe Francis thanked the members for their service and excellent attendance to the meetings. Joe encouraged all members of the committee to continue to share their expertise, opinions, and experiences to further help draft the report. Joe noted the two white papers that were sent to committee members, which were inserted in the notebooks and will be included in the report as meeting materials for the September meeting. No questions were proposed for NDEQ.

VI. Heritage Update/Question and Answer

A. Project update

- Heritage noted the written responses to questions from the committee at previous meetings, which were handed out to committee members and will be included in the report under meeting materials for the September's meeting.
- Army submittals
 - Heritage has started bi-weekly calls with the Army to keep them up-to-date on what is happening in the NDEQ process and Heritage is meeting all the deliverables that Army is requesting (e.g., detailed safety plans and quality assurance plans are being reviewed by the Army).
- Designs status
 - Heritage will be meeting with the process engineer-equipment manufacturer to work on the process engineering and design of the facility on Oct. 4th
- Permitting status
 - The Site Review Committee Report will be submitted in October.
 - The air permit application will be submitted in the first quarter of 2017.
 - The RCRA permit application will be submitted in the first/second quarter of 2017.

B. Update on outstanding items

- High groundwater – There are engineered solutions for that issue. This is a part geotechnical evaluation.
- Federal contract/ regulation (e.g., US Army, ATF) compliance – Heritage's contract language is driven by a set of requirements for the demilitarization of the stockpile by the U.S. Government. New regulatory requirements levied by the EPA are also included. This contract is for the demilitarization of approximately 18% of the HC smoke stockpile in the United States. The rules and regulations are

very specific and are RCRA compliant, EPA compliant, as well as primary program compliant.

- c. Picture of a rotary kiln – added to report
 - o It was moved that the picture of the rotary kiln submitted by Mark Vess be included in the report. This change was accepted.
- d. Chemical transformations – products of ignition are in the report (ZnCl₂, chlorinated vapors, FeO, ZnO, Al₂O₃, PbO)
- e. Site map of the facility – Have been added to report
- f. Transportation routes – Have been added to report

C. Question and Answer

Is there a lot of cushion between where you are planning your construction and the groundwater?

There is a strong cushion and this is another important component that will be engineered for.

VII. Review Draft Report

A. Review and Modify Format

Mark DeKraai led a brief overview of the changes that were made to the report since the previous meeting.

It was proposed that Casey Sherlock's listed position be corrected to:

Hall County Surveyor and Public Works Director

This proposed change was accepted.

Greg Baxter recommended that the committee examine and edit the Committee Comments table for the lay person to easily understand the brief synopsis in the table and not jump to conclusions with only reading the synopsis and not going into the referenced minutes and materials. This proposed activity of editing the table was carried out in the Review Issues, Concerns, Questions, Comments, and Findings for Other Factors section below. The Public Policy Center agreed to add more content and rationale to the committee comments column for each of the eight factors.

B. Generate Issues, Concerns, Questions, Comments, and Findings for Plans for Emergencies and Enforcement Provisions

Any questions were placed in the question and answer section below

a. Plans for Emergencies

Jon Rosenlund, committee member and Hall County Emergency Management Director, stated that any issues relating to emergencies have been addressed in this process and the documentation around this factor is adequate. Jon also recommends that this section of the report be approved. Jon Rosenlund also

requested that it be noted that after personal review of Heritage's safety record, that Heritage's track record is quite impressive, and the plan for this facility appears no more dangerous than work they already have been doing for years (i.e., disposing and recycling ammunition, explosives, and derivative materials using EPA compliant processes). Their safety record, standards of practice, history of compliance, and focus on safety of their workers and the community bodes well for their future work with this contract. The committee agreed to move forward with no additional changes recommended for this factor

b. Enforcement Provisions

It was recommended that the report include the following recommendation:
Local government should consider repermitting or review of a conditional use permit every five years following the same cycle of the RCRA permit, and there also should be consideration of review if there is a situation of a RCRA class I, II, or III modification.

This recommendation was accepted and will be included in the report.

C. Review Issues, Concerns, Questions, Comments, and Findings for Other Factors

Site Characteristics

Under the "How will surface and ground water be protected?" section of the table it was recommended that the wording be changed to:

Heritage's plan and design and NDEQ regulations will ensure the protection of water.

This recommendation was accepted.

Under the "How much water will be used?" section of the table it was recommended that the wording be changed to:

It appears Heritage water usage will not be significant to other current surrounding groundwater users.

This recommendation was accepted.

Under the "What method will be used to restrict wildlife access to evaporation ponds?" section of the table it was recommended that the wording be changed to:

Heritage pledges to provide adequate safeguards to protect wildlife.

This recommendation was accepted.

Facility Functions

It was recommended that any statement throughout the comment section include the following wording where appropriate:

...appear to be adequate and in regulatory compliance.

This recommendation was accepted.

Under the “Will there be fire suppression systems & sub-floor secondary containment design in the new facility and receiving building?” section of the table it was recommended that the wording be changed to:

The measures for fire suppression appear to be adequate and in regulatory compliance.

This recommendation was accepted.

Technology

Under the “What chemical transformations occur with the materials?” section of the table it was recommended that the wording be changed to:

Based on the information that the committee has at this point the committee has sufficient understanding of the likely chemical transformations, and the public has access to this information.

This recommendation was accepted.

Environmental Quality

Under the “What kind of health issues were shown for individuals with prolonged exposure to the smoke?” section of the table it was recommended that the wording of the issue or concern be changed to:

What kind of health issues were shown for individuals with prolonged exposure to the HC smoke?

This recommendation was accepted.

It was recommended that any place in the table that “adequate safeguards” are addressed in a section of the table that the wording be changed to:

Adequate regulatory safeguards appear to be in place...

This recommendation was accepted.

Enforcement Provisions

It was recommended that the committee comments in this section reinforces that there are a lot of people examining and approving the Heritage site. Especially in the “How will the county and state know of federal contract/ regulation (e.g., US Army, ATF) compliance?” section the following wording was proposed:

The committee recognizes that there are many federal agencies that are going to examine and review Heritage’s compliance. Heritage has given information of how that information can be accessed by local and state entities. This committee feels that is adequate.

This recommendation was accepted.

Transportation

Recommendation that the recommended main route be included on the map, with only one secondary route listed on the map. The secondary route would deviate from the main route with a left from 40C to W Schultz Rd., heading west two miles, taking a right and heading north on S Schauppsville Rd. until Hwy 30, and then taking a right on Hwy 30 and heading east until they would reach S 80th Rd. which leads to Heritage. There was also the suggestion for a map of how the materials will travel to go to a local landfill and there is no need for a map on where a shipment of non-hazardous materials might travel. The committee recognizes the characteristics of the materials (hazardous or non-hazardous as determined by analytical evaluation and NDEQ's evaluation of the materials) being transported will determine where they will be transported.

This recommendation was accepted.

Economic Considerations

It was recommended that committee comments reflect that the committee understands that there will be higher paying jobs in the Hall County Area from the proposed operation. It was also recommended that there should be a recognition in the financial assurance section that the financial responsibility appears sufficient to protect our local community from negative financial consequences.

Other Factors

The committee recognizes that Heritage plans to do certain non-required things to further enhance employee, environment, and public safety.

D. Questions and Answers

From the local permitting standpoint, from an enforcement perspective, how and how often do we expect that a conditional use permit be reviewed? What are the considerations?

In order for NDEQ to issue a permit, Heritage will have to also comply with local, state, and federal requirements. If any requirement is not met, it is a reason that NDEQ can deny the issuance of a permit. Every five years Heritage will be required to renew their air operating and RCRA permits. Also any modifications to a permit, depending on what level of modification (RCRA Class I, II, or III) triggers different review processes. Greg Baxter recommends that any local conditional use permit be coordinated for review anytime the state reviews their permits.

From a facility standpoint, what level of modifications bring a permit up for review?

Facility modifications, based on the level of modification, is classified as either a RCRA Class I, II, or III modification.

RCRA Class I modification – They have to provide public notice

RCRA Class II modification– They have to provide public notice and have public information sessions

Class III modification– The whole permit would basically be up and a new permit would be applied for and would be up for public comment.

VIII. Comments, Feedback, Next Steps and Adjourn

A. Member Comments

Brad Kloss provided insight that there does not appear to be concern among the Alda community for the proposed operation at the Heritage facility since Heritage has been operational for so long in Alda.

Chairman John Turnbull and facilitator Mark DeKraai, UNPPC, encouraged that committee members review the next draft and provide any comments or issues directly to Quinn Lewandowski or Mark DeKraai of the UNPPC prior to the next meeting so issues can be resolved in advance.

B. Meeting Feedback

No additional meeting feedback was given.

C. Summary of Next Steps

i. Remaining Meeting Schedule

- Wednesday, October 12th at 6:00 PM, TBA

D. Public Comments

No comments were made or proposed.

E. Adjourn

John Turnbull adjourned the meeting at 6:06 PM CDT.

Hazardous Waste Site Review Committee Meeting Presentation
Materials and Handouts

September 20th, 2016



**HDS Facility Expansion
Site Review Committee**

HERITAGE DISPOSAL & STORAGE, LLC

DWIGHT MILLER, PE, PARAMETRIX

MARK VESS, HDS

September 20, 2016

PRESENTATION OUTLINE



1. Project Update
2. Update on Outstanding Items
3. Q&A

PROJECT UPDATE

- Army submittals
- Design status
- Permitting status

ARMY SUBMITTALS

- Safety Plans
- Quality Assurance Plan
- Bi-weekly calls

DESIGN STATUS

- Meeting with process engineer – equipment manufacturer on Thursday
- Design team meeting on October 4th
- Design to permit-level in 17-Q1

PERMITTING STATUS

- SRC Report to Hall County Commissioners 16-Q4 (October)
- Submit air permit application 17-Q1
- Submit RCRA permit application 17-Q1/Q2

UPDATE ON OUTSTANDING ITEMS

1. High groundwater – engineered solutions
2. Federal contract/ regulation (e.g., US Army, ATF) compliance -
3. Diagram of a rotary kiln – added to report
4. Chemical transformations – products of ignition in the report (ZnCl_2 , chlorinated vapors, FeO , ZnO , Al_2O_3 , PbO)
5. Site map of the facility – added to report
6. Transportation routes – added to report

Questions?

Heritage Response to Committee Questions/Suggestions

1. One item of confusion is the following statement: “Heritage includes 60 renovated and licensed bunkers with storage capacity for 16 million pounds of explosive materials and has the capability to renovate and license 57 more bunkers to increase storage capacity to 24 million pounds.” Is this an accurate statement and if so, why would renovation of almost double the number of bunkers only result in 50% more capacity?

Answer: The ATF and State of Nebraska determines the maximum quantity and type of explosives materials for each magazine and storage locker at Heritage. US Governmental regulations have requirements for construction of magazines. This construction along with security and safety parameters and distances from inhabited buildings, public roads and numerous other factors determine what type and how much explosives can be stored at each location. The distances themselves are measured from each physical magazine or storage unit. As such the quantity stored by type and quantity can and does change based on the magazine location. This accounts for the difference in quantities and types of materials stored.

2. An issue raised but we don't have a response in the minutes is “Flood plain is addressed but what about high ground water?” This was a comment on one of the meeting feedback forms.

Answer: The only significant issue regarding high groundwater is for those facilities that may require excavation be below the upper water table, such as the evaporation lagoon or surface water ponds. These facilities will be designed to compensate for high groundwater.

3. Another issue raised but we have no response in the minutes is “How will county and state know of federal contract/ regulation (e.g., US Army, ATF) compliance?”

Answer: The contract relationship is between the USG and Heritage. If the question concerns official inspections and reports those would be available on line as public information or available under FOIA. If the county or state wanted to know the status of performance again a FOIA request could be made through Rock Island officially.

Heritage has agreed to maintain an operating record of permits (local, state, federal) including US Army and ATF compliance that county and state officials can review onsite. Many of these permits are posted online by the respective issuing agency and will be publically available.074

4. At the last meeting there was a request for a diagram of a rotary kiln, so this could be provided.

Answer: A diagram and actual photo has been provided. A link to the actual machine on video is here on you tube. (Copy and paste in browser)

<http://getavulcan.com/equipment/incineration-systems/vulcan-hazardous-waste-incinerator/>

5. At the last meeting there was a request for a better understanding about what chemical transformations occur in the kiln. We included the chemical components of HC smoke from Table 5.2 in the report narrative, so not sure if you want to add anything to this.

Answer: The narrative is correct and best describes what transformation is taking place. The data is validated by the US EPA air emissions data which is available and published on the US EPA website. The final piece of information will happen after computer modeling and final design by the Heritage engineering team. The actual air emissions will be determined after all of the engineering for each of the processing

steps have been completed and which is the basis for the final permit applications submitted to NDEQ in January 2017

6. At the last meeting there was a request for a site map of the facility. We added the map of Heritage in proximity to Alda and Grand Island to the report, so not sure if you want to add anything to this.

Answer: Your map is excellent and I have added a tract map of cornhusker as well.

7. There was interest in transportation routes at the last meeting so we added the route map from your power point – not sure if you want to add anything.

Answer: Your map is excellent and very clear.



Hazardous Waste Site Review Committee Meeting Agenda & Minutes

Qevqdt'34^y, 2016

Hazardous Waste Site Review Committee Meeting
October 12, 2016, 6:00 PM CDT
Alda Community Center
6410 W Highway 30, Alda, NE

AGENDA

- I. Call to Order**
- II. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)**
- III. Roll Call**
- IV. Review and Approval of September 20, 2016 Meeting Minutes**
- V. Review of Agenda and Update of Notebooks**
- VI. NDEQ Update**
- VII. Local Siting Process Update – Hall County/NDEQ**
- VIII. Heritage Update**
- IX. Final Review and Approval of Report – Action Item**
- X. Comments, Next Steps and Adjourn**
 - A. Member Comments**
 - B. Summary of Next Steps**
 - C. Public Comments**
 - D. Adjourn**

Hazardous Waste Site Review Committee Meeting

October 12, 2016, 6:00 PM CDT

Alda Community Center

6410 W Highway 30, Alda, NE

I. Call to Order

II. Open Meetings Law information – verification of public notice, availability of copy of law in the meeting location - NEB. REV. STAT. §§ 84-1407 through 84-1414 (1999, Cum. Supp. 2006, Supp. 2007)

The Chair, John Turnbull, called the meeting to order at 6:00 PM Central Daylight Time. Chairman Turnbull verified public notice and availability of a copy of the Nebraska Open Meetings Act at the meeting location.

III. Roll Call

Eight of the twelve appointed committee members were present at roll call; quorum was met. Committee member Alex Harness arrived at approximately 6:04 PM and committee member Casey Sherlock arrived at approximately 6:06 PM. There was one member of the public present at the meeting.

First Name	Last Name	Attendance
Teresa	Anderson	
Greg	Baxter	X
Karen	Bredthauer	X
Chris	Exstrom	X
Alex	Harness	X
Brad	Kloss	X
Chad	Nabity	X
Dan	Purdy	X
Jon	Roslund	
Casey	Sherlock	X
Timothy	Smith	X
John	Turnbull	X

Others in attendance: Dwight Miller-Heritage/Parametrix, Mark Vess-Heritage, Jim Macy-Nebraska Department of Environmental Quality (NDEQ), Joe Francis-NDEQ, Morgan Leibrandt-NDEQ, Mark DeKraai –University of Nebraska Public Policy Center (UNPPC), Quinn Lewandowski – UNPPC.

IV. Review and Approval of September 20, 2016 Meeting Minutes

Chris Exstrom made a motion to approve the September 20, 2016 meeting minutes. The motion was seconded by Karen Bredthauer; the motion passed by roll call vote with no

abstaining votes and no dissensions. Committee members Alex Harness and Casey Sherlock were absent at the time of this vote.

- **Yea:** Baxter, Bredthauer, Exstrom, Kloss, Nabity, Purdy, Smith, and Turnbull
- **Nay:** None
- **Abstentions:** None

V. Review of Agenda and Update of Notebooks

Mark DeKraai gave a brief overview of the meeting's agenda. Joe Francis worked with committee members to update their notebooks.

VI. NDEQ Update

NDEQ director, Jim Macy, thanked the committee for committing their time during this valuable process.

VII. Local Siting Process Update – Hall County/NDEQ

Morgan Leibbrandt, NDEQ, led an overview of the facility siting process and a summary of its legislative basis for the hazardous waste facility review, NEB REV STAT Sections 81-1521.08 – 81.1521.23. Chad Nabity provided additional information about the local siting process.

According to the statutes, after the committee issues the report no later than 180 days from the date the notice of intent was filed, the process will enter the second step of the three step process. The report submitted shall document the discussion of community concerns raised during review by the committee of the proposed commercial hazardous waste management facility, including identification and discussion of the issues which were resolved, the issues which were not resolved, and the questions which were not answered, including the reasons they were not answered.

Copies of the report shall be made available to committee members, the department, the applicant, and the public. After issuance of its report, the committee shall have no further duties, except that the department may ask the committee to review any changes related to the proposed commercial hazardous waste management facility which are proposed by the applicant and to amend its report if appropriate. At the conclusion of the process involving the committee, Heritage shall submit their application to the director of NDEQ on a form provided by the director.

If the application for a commercial hazardous waste management facility contains all of the information required by NDEQ, the director shall send a copy of the application, the committee's report, and of any response by the applicant to the report to the Hall County Board. A hearing shall be held by the county board, within forty-five days of receipt of the copy of the application.

Before the county board approves or disapproves a proposed commercial hazardous waste management facility, notice shall be given once at least thirty days but not more than forty days before the hearing and a second time at least ten days before the hearing. Such notice shall be given by publication of a notice in a newspaper either published in or having general circulation in the county where the proposed facility is to be located and shall state the time and place of hearing, the name of the applicant for a permit, and the exact location of the proposed facility. In deciding whether to approve or disapprove such facility, the county board shall determine if the facility will be in compliance with its zoning laws or violate any local ordinances or resolutions. The local governing body shall make its decision within 180 days of receipt of a copy of the application from the director and shall notify NDEQ and the applicant of its action. If the local governing body disapproves the application, it shall specify its reasons for disapproval. If the local governing body disapproves the application, the department may not take further action on the application unless the disapproval is reversed by court order. For purposes of appeal, the decision of the local governing body to disapprove the application shall be deemed a final order.

Any disapproval decision made by the local governing body may be appealed to district court. The court may affirm the decision or it may reverse or modify the decision if the substantial rights of the petitioner may have been prejudiced because the decision is:

1. In violation of constitutional provisions
2. In excess of the statutory authority or jurisdiction of the local governing body
3. Made upon unlawful procedure
4. Unsupported by competent, material, and substantial evidence in view of the entire record as made on review
5. Arbitrary or capricious.

Following approval action by the local governing body, the NDEQ director shall determine if the proposed facility complies with the provisions of the Environmental Protection Act and all rules, regulations, and standards promulgated pursuant to such act. The review shall include, but not be limited to, consideration of factors related to air quality, water quality, waste management, and hydrogeology and of the environmental risks and benefits to the vicinity in which the facility would be located. Each person in the department who reviews the application shall prepare and sign a written statement for evaluation by the director who shall decide whether to approve or disapprove the application.

The department shall publish notice of an application for a permit for a commercial hazardous waste management facility, together with the action taken by the local governing body, the director's decision, and whether the permit will be granted or denied, in a legal newspaper either published in or having general circulation in the vicinity affected. A copy of such notice shall also be provided to Heritage. The public may comment or request a public hearing within thirty days after the date such

information is made available, and the director may, within his or her discretion, hold a hearing on the granting or denial of the permit if he or she determines that the circumstances justify it. Prior to issuing the permit, the director shall find that the applicant is a responsible and suitable person to conduct the business and that the proposed facility complies with the provisions specified in the statute and has the requisite approval of the local governing body. Permit conditions established by the department shall supersede any ordinances, resolutions, regulations, or requirements of the local governing body, then or thereafter in effect, which are inconsistent with such conditions.

Permits shall expire five years following the date of issuance but may be renewed if the permittee has complied with the provisions of the Environmental Protection Act and the rules and regulations adopted and promulgated thereunder. The director may revoke the permit for a commercial hazardous waste management facility, if he or she finds that the facility is not being operated in accordance with the Environmental Protection Act and rules and regulations adopted and promulgated thereunder. *Please see NEB. REV. STAT. Sections 81-1521.08 to 81-1521.23 for the complete language of the statute.*

VIII. Heritage Update

Heritage had no further updates.

IX. Final Review and Approval of Report – Action Item

Comments and suggestions from the September 20, 2016 meeting were taken and included in a draft report that was distributed to each committee member. Comments and suggestions and were included into another draft of the report that was placed before the committee members at this meeting

The following additional proposed changes to the report were proposed to the committee

1. Page 4, first paragraph, second to last sentence: “The committee held eight public fact-finding meetings from April through October 2016. Each meeting complied with the Nebraska Open Meetings Act.”
2. Page 4, number 8: “Heritage appears to have a feasible plan to sustain and expand its operations in hazardous waste storage and treatment.”
3. Page 7, Local Site Review Committee Members: Local Members Appointed by Hall County*, Alda**, and Grand Island*** Jon Rosenlund****”
4. Page 8, prior to last sentence: “To ensure an open and transparent process, the committee followed all requirements of the Nebraska Open Meetings Act; the Nebraska Department of Environmental Quality (NDEQ) published notice of all meetings, agendas were available prior to meetings, a copy of the open meeting laws were available at each meeting, and every agenda included an item for public comment. NDEQ also prepared press releases for the local papers in Grand Island and Wood River. In addition, copies of committee notebooks, which included all meeting

materials, were available at the NDEQ Lincoln and Grand Island offices, at the Grand Island Public Library, and on the NDEQ website.

5. Page 13, Picture Caption: “Depiction of a Functioning Rotary Kiln”
6. Page 18, last paragraph, 6th line: “Peak deliveries....”
7. Page 24, after last sentence insert: “Routes from Heritage to the landfill and to recyclers should also be specified as part of the local permitting process.”
8. Page 37: “The following packet was provided to the committee by the Nebraska Department of Environmental Quality (NDEQ) for committee notebooks. Meeting minutes and handouts were continuously provided by NDEQ for committee members to update their notebooks. Notebooks were updated and maintained for public viewing at the NDEQ Lincoln and Grand Island offices, the Grand Island Public Library, and on the NDEQ website.”

It was also proposed that the meeting minutes produced from the October 12, 2016 meeting be reviewed and approved by the committee chair and co-chair before inclusion in the report to avoid having to have the committee reconvene to approve the minutes.

Greg Baxter made a motion to accept that the chair and co-chair review and approve the minutes produced after the October 12, 2016 meeting. The motion was seconded by Chris Exstrom; the motion passed by roll call vote with no abstaining votes and no dissensions.

- **Yea:** Baxter, Bredthauer, Exstrom, Harness, Kloss, Nabity, Purdy, Sherlock, Smith, and Turnbull
- **Nay:** None
- **Abstentions:** None

Chad Nabity made a motion to adopt and issue the Hazardous Waste Site Review Committee Final Report for the Hall County, Nebraska Site of the Heritage Disposal and Storage, LLC, Hazardous Waste Storage and Incinerator Facility, dated October 18, 2016 with the recommended changes to the Director, NDEQ, Hall County Board of Supervisors, Alda and Wood River Village Boards, Grand Island Mayor and City Council, and Heritage Disposal and Storage, LLC; to make the report available to the public; and further that any typos, spelling or grammatical errors found be corrected by the University of Nebraska Public Policy Center. The motion was seconded by Dan Purdy; the motion passed by roll call vote with no abstaining votes and no dissensions.

- **Yea:** Baxter, Bredthauer, Exstrom, Harness, Kloss, Nabity, Purdy, Sherlock, Smith, and Turnbull
- **Nay:** None
- **Abstentions:** None

X. Comments, Next Steps and Adjourn

A. Member Comments

Greg Baxter commented that one thing that he has struggled with is that the committee is approving a proposal that isn't concrete yet. He felt that a small portion of the Heritage project was based on a vision rather than something more concrete. He stated that he found it difficult on that basis to put his stamp of approval on something that may morph and change over time over the next few steps of the process. He also took the time to thank Mark Vess of Heritage for sharing his plans and vision with the committee.

Jim Macy, director of NDEQ, thanked the University of Nebraska Public Policy Center and Joe Francis and Morgan Leibbrandt of NDEQ for their time and dedication to this process.

John Turnbull thanked Mark Vess of Heritage and Dwight Miller of Parametrix for their patience and commitment to the committee throughout this process. He also thanked the committee members for their time and working together well.

Chad Nabity thanked his fellow committee members. Chad commented that he shares some of Greg Baxter's concerns, but stated that he understands that some of the hard details aren't there and won't be unless they (Heritage) can proceed through to the next steps. It should be understood that the applicant can't make that investment in the next step until it find out that it can get to the next step. He trusts the director of NDEQ to check everything that Heritage has proposed and move the project forward if it meets all the standards.

Mark Vess of Heritage and Dwight Miller of Parametrix thanked the committee for their efforts. Dwight Miller felt that this was a strong committee effort and gave him valuable insight of how the committee and public views the project.

B. Summary of Next Steps

Joe Francis, NDEQ, commented on how copies of the report will be made available to committee members, the department, the applicant, and the public. Everyone will receive copies of the report at the same time, and NDEQ will be responsible for its distribution to all entities listed and those included in the motion of approval of the report.

C. Public Comments

No public comments were made or submitted.

D. Adjourn

John Turnbull adjourned the meeting at 6:46 PM Central Daylight Time.

Hazardous Waste Site Review Committee Meeting Presentation
Materials and Handouts

October 12th, 2016

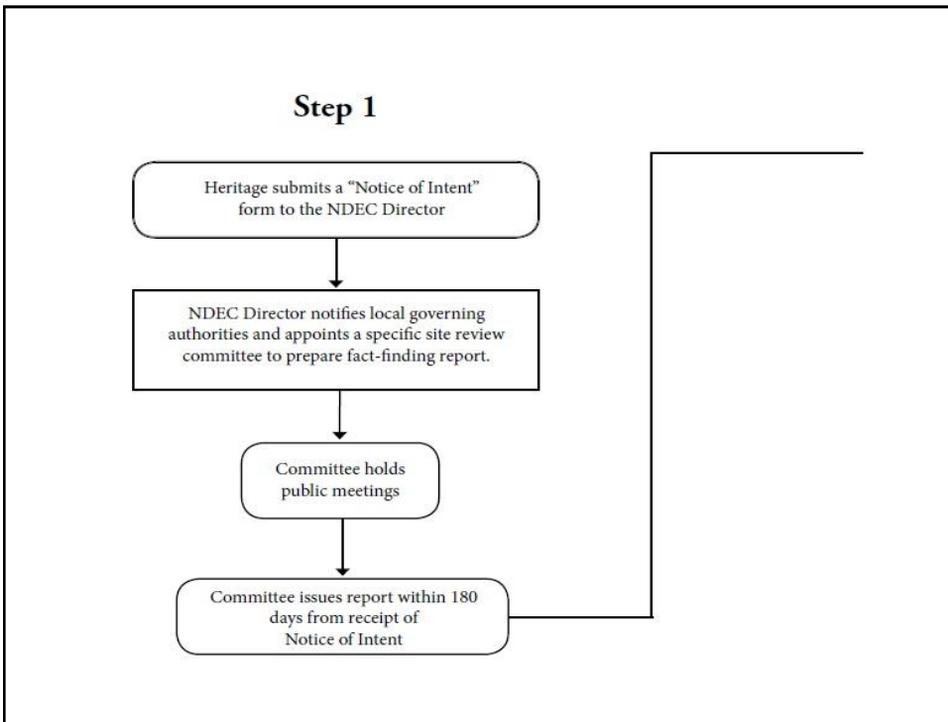


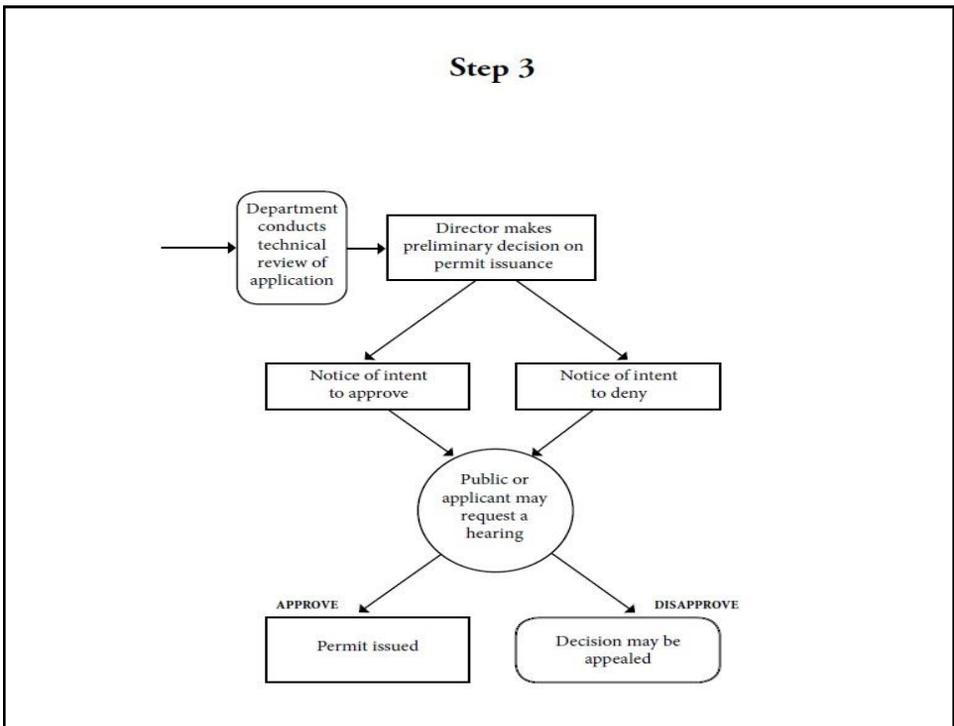
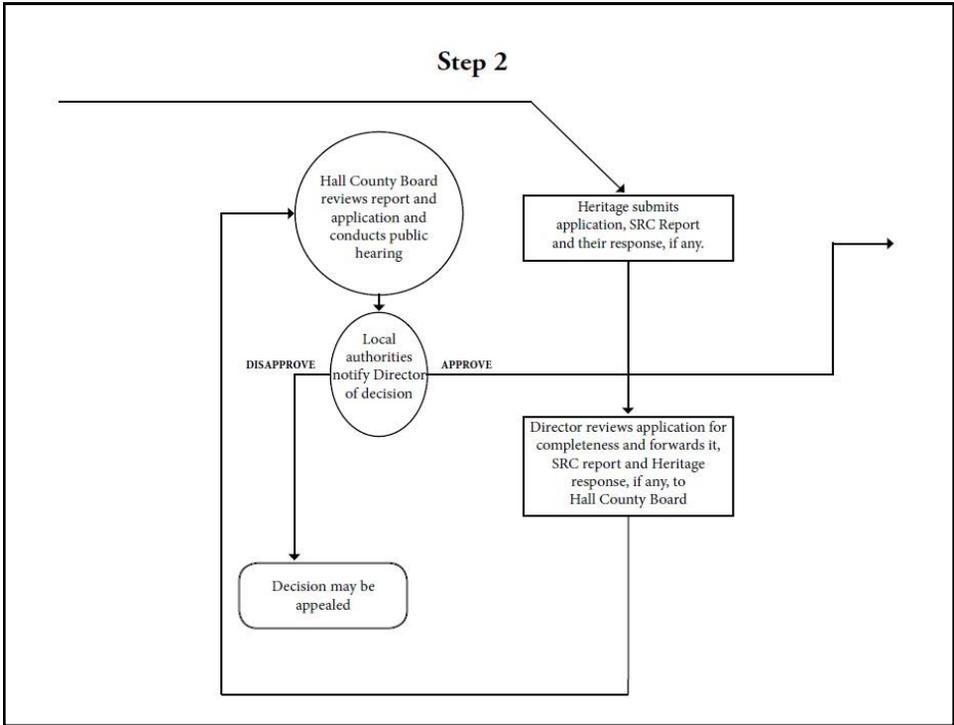
Heritage Disposal and Storage

Local Site Review Committee Process

Hall County

October 2016







Factors for Consideration

- Economic considerations
- The functioning and management of the facility
- Technologies that will be used
- Site characteristics
- Environmental implications
- Transportation implications
- Emergency response
- Enforcement and regulation
- *And other issues...*

From: Jon Watson [mailto:nostawfried@hotmail.com]

Sent: Wednesday, September 21, 2016 2:29 AM

To: NDEQ Moreinfo

Subject: Please no Heritage Incineration west of Grand Island, Nebraska

Nebraska Department of Environment:

Our home is in the Northwest High School area of Grand Island. We are appalled with Heritage Incineration plans for hazard waste in our area.

This area of Grand Island had to struggle through our groundwater being poisoned from the Cornhusker Ammunition plant and now we are faced with another pollution problem for our health. Clean air is one of our most precious gifts and we do not want our families subjected to hazardous waste emissions. Grand Island already has had an air pollution problem with Swift's cattle slaughtering on the east side of Grand Island. Here on the west side of Grand Island, we have bordering feedlots that send waves of stink to us as well. What would seem fortuitous to some in the community, may lead to health problems for others, adversely affecting our area. We also may face the devaluing of our home values due to future polluted air.

Please do not allow the incineration of hazardous waste in this area.

Thank you,

Jon and Heidi Watson

4003 Mason Ave.

Grand Island, NE 68803

Quinn Lewandowski

From: Francis, Joe <joe.francis@nebraska.gov>
Sent: Wednesday, September 28, 2016 11:30 AM
To: nostawfried@hotmail.com
Cc: ndeq moreinfo
Subject: 9/21/2016 email

Mr. Watson,

I am responding to your email of 9/21/2016 regarding the plans for the Heritage hazardous waste incinerator. You know may know there is a Local Site Review Committee meeting on the proposal. The Committee's next meeting will be October 12th beginning at 6:00 PM. There is always a public comment portion of the meeting, you would be welcome to voice any concerns to the Committee at the meeting.

The Committee is nearing the end of their work; they are to submit a final report to the Director of the Department of Environmental Quality by October 18, 2016. The Committee has met numerous times beginning April 25, 2016. A record of all meetings and related materials is on the NDEQ web site - <http://deg.ne.gov/NDEQProg.nsf/OnWeb/Heritage> - if you have any problems getting on the site, or navigating the site, feel free to contact me.

Thank you for your contact and don't hesitate to contact me if you have questions.

Thanks--

Joe Francis
Associate Director
Field Services and Assistance
Nebraska Dept. of Environmental Quality
402/471-6087

Quinn Lewandowski

From: Teresa Anderson <tanderson@cdhd.ne.gov>
Sent: Friday, September 23, 2016 9:23 AM
To: Joe Francis; mdekraai@nebraska.edu
Cc: Christopher Exstrom
Subject: FW: Concerns regarding Hexachloroethane Smoke from incineration

Received this yesterday afternoon. And not sure what to do, if anything. Please advise.

From: lstele@steeleattorneys.com [mailto:lstele@steeleattorneys.com]
Sent: Thursday, September 22, 2016 3:26 PM
To: exstromc@unk.edu; tanderson@cdhd.ne.gov
Subject: Concerns regarding Hexachloroethane Smoke from incineration

Hello Chris and Theresa:

I live in Grand Island and I have been reading about the Hazardous Waste Site incineration plan for munitions which will contain Hexachloroethane and other compounds. I am an attorney and a pharmacist and I have serious concerns about the health effects that this incineration will have on the Grand Island citizens and employees of this incinerator. The letter to the editor in the Grand Island Independent on July 13, 2016 stated that this will be a massive incinerator that will process up to 15,000 tons of munitions per year. Zinc oxide and zinc chloride will be the by-products and will be air borne. These incinerated compounds will also be in the soil in the area and also will be close to cattle which is the food supply. From what I have read, these are possible cancer causing compounds, but are known to cause lung problems.

Could you give me your impression about all of this? What do you think the health effects will be, and is there cause for concern.

Thanks for you input.

Sincerely,

Liana Steele
STEELE LAW OFFICE
PO Box 5104
Grand Island, NE 68802
308-384-7414

Quinn Lewandowski

From: Christopher L Exstrom <exstromc@unk.edu>
Sent: Monday, September 26, 2016 9:31 AM
To: lsteele@steeleattorneys.com; tanderson@cdhd.ne.gov
Cc: Joe Francis; mdekraai@nebraska.edu; Tom OConnor; John Turnbull
Subject: RE: Concerns regarding Hexachloroethane Smoke from incineration

Dear Ms. Steele,

Thank you for your e-mail. We appreciate your concerns. From the information we have been presented and the additional chemistry research I have investigated, the HC spoke pots that will be incinerated are composed of hexachloroethane (HC), zinc oxide, aluminum, and smaller quantities of other metals including iron and lead. The rotary kiln incinerator that Heritage is having built is designed to keep the smoke pots completely enclosed during the incineration process that is expected to break down the HC and form zinc chloride along with metal oxide compounds and carbon ash as side products. The system design plans are accounting for the collection of the solid side products and the trapping of zinc chloride vapor, organic compounds, and particulates to prevent them from being released into the atmosphere. Specific engineering details and test firing analyses are not available at this time, but they will be a part of NDEQ's lengthy technical evaluation that would take place should the Hall County Board of Supervisors approve the zoning permits for this new facility.

I believe that, based on the information available to us at this time, appropriate measures are being taken to protect the local region's air, soil, surface water and groundwater from contamination. This process involves no open burning and throughout the facility's construction and operation, NDEQ would have regular inspections and environmental monitoring procedures to ensure that EPA maximum contamination limit guidelines are continuously being met. If these guidelines are met, I do not expect any adverse health problems to people, cattle or other wildlife.

All committee meeting minutes and information that has been provided to us from NDEQ and Heritage is publicly available here:

<http://deq.ne.gov/NDEQProg.nsf/OnWeb/Heritage>

Next month, we will be releasing our final report that contains findings and comments on a wide variety of questions that arose during our discussion of this proposed facility. This report will be forwarded to the Hall County Board of Supervisors prior to their consideration of the zoning permits.

Thank you again for your e-mail. I hope this information is helpful.

Sincerely,

Christopher L. Exstrom

Ron and Carol Cope Professor of Chemistry
Director, Science/Math Education M.S.Ed. Program
University of Nebraska at Kearney
2401 11th Avenue
405C Bruner Hall
Kearney, NE 68849-1150
Email: exstromc@unk.edu
Phone: (308) 865-8565
Fax: (308) 865-8399

From: lsteel@steeleattorneys.com [mailto:lsteel@steeleattorneys.com]
Sent: Thursday, September 22, 2016 3:26 PM
To: Christopher L Exstrom <exstromc@unk.edu>; tanderson@cdhd.ne.gov
Subject: Concerns regarding Hexachloroethane Smoke from incineration

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Could you give me your impression about all of this? What do you think the health effects will be, and is there cause for concern.

Thanks for you input.

Sincerely,

Liana Steele
STEELE LAW OFFICE
PO Box 5104
Grand Island, NE 68802
308-384-7414

Heritage one of three to demilitarize ammunition

By Tracy Overstreet

tracy.overstreet@theindependent.com | Posted: Wednesday, September 21, 2016 10:00 pm

Heritage Disposal and Storage, an ammunition recycling company in Alda, is one of three companies in the United States selected under new Department of Defense contracts to demilitarize obsolete and excess ammunition stored in bunkers across the country.

“Right now, there are three selected contractors — General Dynamics, EXPAL is building a new facility down in Texas, and Heritage,” Heritage President Mark Vess told the local site review committee on Tuesday during a meeting at the Grand Island Public Library. “We’re the go-to people the Army plans and intends on using for a large part of this work.”

Heritage filed a notice of intent earlier this year with the Nebraska Department of Environmental Quality. The notice is the first step in seeking permits for the company to erect and operate a rotary kiln incinerator at its 900-acre plant at 345 S. 80th Road. The site used to be part of the Cornhusker Army Ammunition Plant, which was built in 1942 and declared surplus in 1989.

“There are some 482,000 tons of material that will be handled by a select few contractors, Heritage being one of those,” Vess said. “Our piece of this work will come in the form of the HC-smoke (grenade) stockpile.”

He said Heritage’s initial contract is for approximately 18 percent of that stockpile. There’s a follow-on contract for approximately 82 percent of the work that will need to be performed, plus additional contracts available for other ammunition such as “colored smokes and high particulate.”

Should permitting be granted, Vess said, startup should begin in 2019 and continue through at least 2030. Under current state regulations, those permits would have to be re-evaluated every five years.

He said the proposed rotary kiln incinerator would follow the newest guidelines issued by the Environmental Protection Agency for ammunition recycling, which does away with all open burning and open detonation of materials, except for emergency response, shortly after 2020.

A 12-member committee was appointed in April to evaluate Heritage’s plan before it moves to the more costly permitting process. The committee is investigating characteristics of the proposed site, facility functions, technology used in demilitarization, environmental issues, enforcement provisions, transportation issues, plans for emergencies and economic impact.

Tuesday’s meeting focused first on finalizing the findings on emergency response and enforcement issues. The Nebraska Law Enforcement Training Center recently had a recruit training at Heritage. Next week, area fire departments will train at the plant, Vess said.

Grand Island/Hall County Emergency Management Director Jon Rosenlund, a member of the committee, said Heritage has a “pretty impressive” safety record.

“We are never called out to Heritage,” he said.

Heritage opened in 2003 and has processed 2.86 million pounds of ammunition, according to compliance data presented to the committee. Heritage has had 32 inspections from a variety of agencies and has not had any type of write-up. Rosenlund said that record gives confidence in how Heritage would handle the expansion into rotary kiln incineration work.

The committee discussed on Tuesday the lack of enforcement any local or state agency would have on materials coming into the plant. Hall County Public Works Director Casey Sherlock requested that two possible routes into the plant be removed from a travel map because the roads either are weight-restricted or cross private land.

Instead, all shipments into the plant are recommended to come from Interstate 80 to Alda Road to Old Potash Highway. The alternate route would be on Schauppsville Road, Sherlock said.

Vess said he can suggest travel routes to the Army and its contracted haulers, but he lacks authority to enforce the travel routes.

Sherlock requested that the committee also publish maps of suggested routes for outgoing material headed to the landfill.

The committee also recommended that any local permitting, such as a county conditional use permit, be reviewed on the same time frame as state permitting — likely a five-year time frame.

Following the review of emergency response and enforcement issues, the committee reviewed its recommendations and findings on the other six categories.

The committee noted that the plant will use a small amount of water, about 10,000 to 20,000 gallons a day. Heritage has also pledged to fence evaporation ponds to keep out deer and install nets over ponds to prevent birds from landing there.

It found the facility, technology, environmental issues and economic impact all to be adequate. Heritage expects to create 50 full-time and 12 part-time jobs, with a total annual payroll of \$3.5 million.

Rosenlund said the committee’s work is essentially to “find objections.” So far, everything looks good. No opposition or “pitchforks at the door” have been present at the committee’s meetings, he said.

The committee’s final report is to be approved during a meeting at 6 p.m. Oct. 12.

The report will then go to the Hall County Board of Supervisors for a public hearing and recommendation before advancing to the Nebraska Department of Environmental Quality to begin the permitting process.

Recommended Changes to Site Review Committee Report 10/12/2016

1. Page 4, first paragraph, second to last sentence: “The committee held eight public fact-finding meetings from April through October 2016. [Each meeting complied with the Nebraska Open Meetings Act.](#)”
2. Page 4, number 8: “Heritage appears to have a feasible plan to sustain and expand its operations in hazardous waste [storage and treatment.](#)”
3. Page 7, Local Site Review Committee Members: Local Members Appointed by Hall County*, Alda**, and Grand Island*** Jon Rosenlund***”
4. Page 8, prior to last sentence: “[To ensure an open and transparent process, the committee followed all requirements of the Nebraska Open Meetings Act; the Nebraska Department of Environmental Quality \(NDEQ\) published notice of all meetings, agendas were available prior to meetings, a copy of the open meeting laws were available at each meeting, and every agenda included an item for public comment. In addition, copies of committee notebooks, which included all meeting materials, were available at the NDEQ Lincoln and Grand Island offices, at the Grand Island Public Library, and on the NDEQ website.](#)”
5. Page 13, Picture Caption: “[Depiction of a Functioning Rotary Kiln](#)”
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8. Page 37: “[The following packet was provided to the committee by the Nebraska Department of Environmental Quality \(NDEQ\) for committee notebooks. Meeting minutes and handouts were continuously provided by NDEQ for committee members to update their notebooks. Notebooks were updated and maintained for public viewing at the NDEQ Lincoln and Grand Island offices, the Grand Island Public Library, and on the NDEQ website.](#)”

Hazardous Waste Site Review Committee

Appendices

Following is the statute that is applicable to the siting of commercial hazardous waste management facilities in Nebraska.

81-1521.08. Hazardous waste; terms, defined.

For purposes of sections 81-1521.08 to 81-1521.23, unless the context otherwise requires:

(1) Chief executive officer shall mean the mayor, city manager, or chairperson of the board of trustees of a municipality;

(2) Commercial hazardous waste management facility shall mean a hazardous waste management facility which accepts hazardous waste for treatment, storage, or disposal which is generated by any person other than the person which owns or operates such facility;

(3) Committee shall mean the specific site review committee established in response to a notice of intent filed pursuant to section 81-1521.09;

(4) Hazardous waste management facility shall mean all contiguous land, and structures, other appurtenances, and improvements on the land, used for the treatment, storage, or disposal of hazardous waste. A hazardous waste management facility may consist of several treatment, storage, or disposal operational units such as one or more landfills or surface impoundments or any combination of such operational units;

(5) Municipality shall mean an incorporated city or village; and

(6) Other definitions found in section 81-1502 shall apply.

Source:Laws 1987, LB 114, § 2.

81-1521.09. Hazardous waste; commercial hazardous waste management facility; notice of intent to apply for permit; fee; site review committee; director; appoint designee.

(1) Commencing on June 30, 1988, any person who desires a permit for a commercial hazardous waste management facility shall, at least one hundred eighty days prior to making application therefor, file a notice of intent with the director on a form provided by the director. The notice of intent shall include such information as prescribed by the director and shall be accompanied by a fee established by the department in an amount sufficient, but not in excess of the amount necessary, to pay the department for the direct and indirect costs of processing the notice of intent and to pay the costs and expenses specified in section 81-1521.12. Within fifteen days of receipt of a notice of intent, the director shall notify the appropriate local officials and shall establish a specific site review committee. The purpose of establishing the committee shall be to provide for early public involvement in the consideration of a proposed facility.

(2) The director may appoint a designee to carry out duties assigned to the director related to a notice of intent or an application for a permit except the duty to make the decision required by section 81-1521.19. If the applicant is an individual, the application shall include the applicant's social security number.

Source:Laws 1987, LB 114, § 3; Laws 1997, LB 752, § 225.

81-1521.10. Hazardous waste; site review committee; membership.

(1) The committee shall consist of twelve members, six of whom shall be local members and six of whom shall be regional members.

(2) The six local members shall be chosen as follows:

(a) If the proposed facility will be located within the zoning jurisdiction of a municipality, the chief executive officer of the municipality shall appoint six members who reside within such zoning jurisdiction;

(b) If the proposed facility will be located in an unincorporated area which is within five miles of the zoning jurisdiction of one or more municipalities, the chief executive officer of each such municipality shall appoint a member who resides within the zoning jurisdiction of the respective municipality and the chairperson of the county board of the county in which the facility would be located shall appoint additional members who reside within five miles of the proposed facility for a total of six members; and

(c) If the proposed facility will be located in an unincorporated area which is more than five miles from the zoning jurisdiction of any municipality, the chairperson of the county board of the county in which the facility would be located shall appoint six members who reside within five miles of the proposed facility.

(3) The six regional members shall be appointed by the director to represent various interests affected by a proposed facility and shall include at least one environmental representative, one academic expert, one industry representative, one community planner, one representative of public interest groups, and one representative of the medical community. The regional members shall be appointed for two-year terms and shall serve whenever a committee is needed during that time. Alternates shall be appointed to serve in case a regional member is unable to do so or is already serving on a committee.

Source:Laws 1987, LB 114, § 4.

81-1521.11. Hazardous waste; site review committee; meetings; officers; professional facilitator.

The director shall organize a meeting of the committee within twenty-one days of the filing of a notice of intent by an applicant. The director shall serve as temporary chairperson of the committee and shall select as a professional facilitator a person trained in group dynamics and objectivity to handle committee meetings with the public and the applicant. At its first meeting, the committee shall select a chairperson and any other officers it deems necessary and shall adopt procedures for gathering information and preparing a report. The committee shall hold factfinding meetings near the proposed site for the facility. The applicant shall make a technical advisor and other resource people available to the committee.

Source:Laws 1987, LB 114, § 5.

81-1521.12. Hazardous waste; department; provide staff; applicant; pay expenses.

The department shall provide a secretary and other staff persons to assist the committee. The applicant shall pay the expenses for such clerical and other help and the salary of the professional facilitator, shall pay the costs of printing the committee's report, and shall reimburse the committee members for their mileage expenses at the rate provided in section 81-1176 for state employees. The department shall keep a record of all such costs and expenses and assess the applicant for any amount over the estimated amount on which the fee paid by the applicant was based.

Source:Laws 1987, LB 114, § 6.

81-1521.13. Hazardous waste; site review committee; consider factors; enumerated.

Factors to be considered by the committee shall include, but not be limited to:

(1) Economic considerations such as whether the facility is needed, profit expectations for the facility, how the facility will be operated, effects on the community, the potential for compensation to the local governing body, and aspects related to closure of the facility;

(2) The function of the facility, including the management processes involved, the wastes to be handled, the relationship to any integrated system or master plan for hazardous waste management, and plans for future expansion;

(3) Considerations related to the technology to be used such as why that process was chosen, plans for quality control, reliability of the technology, and the sequence of steps involved from generation of the wastes to postclosure of the facility;

(4) Characteristics of the site for the facility, the methods for determining the characteristics, and why the site was chosen;

(5) Surface drainage, ground water protection, air emissions, and other factors related to environmental quality;

(6) Transportation considerations such as methods to be used, waste containment during transport, party responsible for transport, timing of arrivals, routing, and response plans in case of spills;

(7) Plans for responses to emergencies and for site security, qualifications and training of personnel, and actions to be taken when there are operating problems; and

(8) Enforcement provisions, including applicable regulations, monitoring plans, who is responsible for enforcement, sequence and timing of possible enforcement, and the ability of governmental agencies to ensure compliance.

Source:Laws 1987, LB 114, § 7.

81-1521.14. Hazardous waste; site review committee; issue report; contents.

The committee shall issue a report no later than one hundred eighty days from the date the notice of intent is filed, except that the deadline may be extended by mutual agreement between the applicant and the committee. The report shall document the discussion of community concerns raised during review by the committee of the proposed commercial hazardous waste management facility, including identification and discussion of the issues which were resolved, the issues which were not resolved, and the questions which were not answered, including the reasons they were not answered.

The report may also include recommendations on the compensation which the applicant should pay or provide to the local governing body. Any recommendations shall be subject to further negotiations between the applicant and the local governing body.

Copies of the report shall be made available to committee members, the department, the applicant, and the public.

After issuance of its report, the committee shall have no further duties, except that the department may ask the committee to review any changes related to the proposed commercial hazardous waste management facility which are proposed by the applicant and to amend its report if appropriate.

Source:Laws 1987, LB 114, § 8.

81-1521.15. Commercial hazardous waste management facility; application for permit.

At the conclusion of the process involving the committee, the person desiring a permit for a commercial hazardous waste management facility shall make application therefor to the director on a form provided by the director. The application shall contain the name and residence of the applicant, the location of the proposed facility, and such other information as may be necessary and shall be accompanied by a copy of the committee's report and any written response by the applicant to such report.

Source:Laws 1980, LB 853, § 8; R.S.1943, (1981), § 81-1521.01; Laws 1987, LB 114, § 9.

81-1521.16. Commercial hazardous waste management facility; application; hearing by local governing body.

If the application for a commercial hazardous waste management facility contains all of the information required by the department, the director shall send a copy of the application, of the committee's report, and of any response by the applicant to the report to the county board of the county if the proposed facility will be located outside the zoning jurisdiction of a city or village or to the city council or board of trustees if it will be located within the zoning jurisdiction of a city or village. A hearing shall be held by the county board, city council, or board of trustees within forty-five days of receipt of the copy of the application.

Source:Laws 1987, LB 114, § 10.

81-1521.17. Commercial hazardous waste management facility; notice of hearing; decision by local governing body.

Before the county board, city council, or board of trustees approves or disapproves a proposed commercial hazardous waste management facility, notice shall be given once at least thirty days but not more than forty days before the hearing and a second time at least ten days before the hearing. Such notice shall be given by publication of a notice in a newspaper either published in or having general circulation in the county, city, or village where the proposed facility is to be located and shall state the time and place of hearing, the name of the applicant for a permit, and the exact location of the proposed facility. In deciding whether to approve or disapprove such facility, the county board, city council, or board of trustees shall determine if such facility will be in compliance with its zoning laws or violate any local ordinances or resolutions. The local governing body shall make its decision within one hundred eighty days of receipt of a copy of the application from the director and shall notify the department and the applicant of its action. If the local governing body disapproves the application, it shall specify its reasons for disapproval. If the local governing body disapproves the application, the department may not take further action on the application unless the disapproval is reversed by court order. For purposes of appeal, the decision of the local governing body to disapprove the application shall be deemed a final order.

Source:Laws 1980, LB 853, § 9; R.S.1943, (1981), § 81-1521.02; Laws 1987, LB 114, § 11; Laws 1987, LB 152, § 8.

81-1521.18. Commercial hazardous waste management facility; appeal of decision.

The disapproval decision made by the local governing body may be appealed to district court. The court may affirm the decision or it may reverse or modify the decision if the substantial rights of the petitioner may have been prejudiced because the decision is:

- (1) In violation of constitutional provisions;
- (2) In excess of the statutory authority or jurisdiction of the local governing body;
- (3) Made upon unlawful procedure;
- (4) Unsupported by competent, material, and substantial evidence in view of the entire record as made on review; or
- (5) Arbitrary or capricious.

Source:Laws 1987, LB 114, § 12.

81-1521.19. Commercial hazardous waste management facility; approval; director; duties.

Following approval action by the local governing body, the director shall determine if the proposed facility complies with the provisions of the Environmental Protection Act and all rules, regulations, and standards promulgated pursuant to such act. The review shall include, but not be limited to, consideration of factors related to air quality, water quality, waste management, and hydrogeology and of the environmental risks and benefits to the vicinity in which the facility would be located. Each person in the department who reviews the application shall prepare and

sign a written statement for evaluation by the director who shall decide whether to approve or disapprove the application.

Source:Laws 1987, LB 114, § 13.

81-1521.20. Commercial hazardous waste management facility; publication of notice; additional hearing; permit; issuance; conditions.

The department shall publish notice of an application for a permit for a commercial hazardous waste management facility, together with the action taken by the local governing body, the director's decision, and whether the permit will be granted or denied, in a legal newspaper either published in or having general circulation in the vicinity affected. A copy of such notice shall also be provided to the applicant. The public may comment or request a public hearing within thirty days after the date such information is made available, and the director may, within his or her discretion, hold a hearing on the granting or denial of the permit if he or she determines that the circumstances justify it.

Prior to issuing the permit, the director shall find that the applicant is a responsible and suitable person to conduct the business and that the proposed facility complies with the provisions specified in section 81-1521.19 and has the requisite approval of the local governing body. Permit conditions established by the department shall supersede any ordinances, resolutions, regulations, or requirements of the local governing body, then or thereafter in effect, which are inconsistent with such conditions.

Source:Laws 1980, LB 853, § 10; R.S.1943, (1981), § 81-1521.03; Laws 1987, LB 114, § 14.

81-1521.21. Commercial hazardous waste management facility; permittee; financial responsibility and insurance.

As a condition of granting a permit for any commercial hazardous waste management facility, the permittee shall provide proof of financial responsibility pursuant to subdivision (21)(a) of section 81-1505 and liability insurance, including coverage against nonsudden and accidental occurrences, in an amount determined by the director.

Source:Laws 1980, LB 853, § 11; Laws 1984, LB 1078, § 6; R.S.Supp.,1986, § 81-1521.04; Laws 1987, LB 114, § 15.

81-1521.22. Commercial hazardous waste management facility permit; expiration; renewal.

Permits shall expire five years following the date of issuance but may be renewed if the permittee has complied with the provisions of the Environmental Protection Act and the rules and regulations adopted and promulgated thereunder.

Source:Laws 1980, LB 853, § 12; R.S.1943, (1981), § 81-1521.05; Laws 1987, LB 114, § 16; Laws 1987, LB 152, § 9.

81-1521.23. Commercial hazardous waste management facility permit; revocation; when.

The director may revoke the permit for a commercial hazardous waste management facility, pursuant to subsection (3) of section 81-1507, if he or she finds that the facility is not being

operated in accordance with the Environmental Protection Act and rules and regulations adopted and promulgated thereunder.

Source:Laws 1980, LB 853, § 13; R.S.1943, (1981), § 81-1521.06; Laws 1987, LB 114, § 17; Laws 1987, LB 152, § 10.

CHECK
RECEIVED

142336

\$40,000.00

COPY



Heritage Disposal & Storage LLC

345 South 80th Road PO Box 250

Alda, NE 68810

Mark Vess, President

Phone: 308-850-8457

Office: 308-389-3155

Fax: 308 389-9143

RECEIVED

APR 21 2016

Nebraska Dept of Environmental Quality
By: CB

20 Apr 2016

Nebraska Department of Environmental Quality

As per our meeting on 18 April 2016, I am requesting that the NOI submitted on 8 April 2016 be rescinded due to the legal description not adequately identifying the entire area associated with the storage of materials as required.

An updated NOI is attached.

Thank you for your continued support to Heritage Disposal & Storage.

Best Regards

Mark Vess



**NOTICE OF INTENT TO APPLY FOR A PERMIT
TO OPERATE A
COMMERCIAL HAZARDOUS WASTE MANAGEMENT FACILITY**

APPLICANT: (a)

Name of Owner Heritage Disposal & Storage L.L.C.
Mailing Address P.O.Box 250
Alda, NE 68810-0250
Name of Operator Heritage Disposal & Storage L.L.C.
Mailing Address P.O. Box 250
Alda, NE 68810-0250
Name of Person to be contacted: Mark Vess
Mailing Address P.O. Box 103, Alda, NE 68810-0103
Telephone Number (308) 850-8457
E-mail Address mark@heritage-ds.com

PROPOSED FACILITY:

Type (Treatment/Storage/Disposal): Treatment / Storage
Location (Address) 345 S 80th Road (Former Cornhusker Army Ammunition Plant)
Alda, NE 68810
Legal Description (b): The Treatment plant will be located in Township 011N, Range 011W, Section 24, 6th principal meridian on what is considered Tract 46.
Storage / Township 011N, Range 011W of Section 24 and Township 011N, Range 10W of Section 19, 6th principal meridian, or Tract 48

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

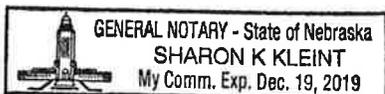
Date 21 April 2016

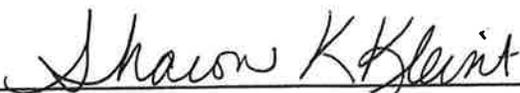
Signature 

Type Name Mark A. Vess

Title President, Heritage Disposal & Storage L.L.C.

Subscribed and sworn to before me this 21st day of April, 2016




Notary Public

**NOTICE OF INTENT TO APPLY FOR A PERMIT
TO OPERATE A
COMMERCIAL HAZARDOUS WASTE MANAGEMENT FACILITY**

APPLICANT: (a)

Name of Owner Heritage Disposal & Storage L.L.C.
Mailing Address P.O.Box 250
Alda, NE 68810-0250
Name of Operator Heritage Disposal & Storage L.L.C.
Mailing Address P.O. Box 250
Alda, NE 68810-0250
Name of Person to be contacted: Mark Vess
Mailing Address P.O. Box 103, Alda, NE 68810-0103
Telephone Number (308) 850-8457
E-mail Address mark@heritage-ds.com

PROPOSED FACILITY:

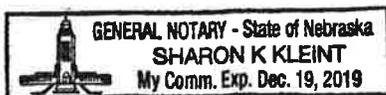
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Storage / Township 011N, Range 011W of Section 24 and Township 011N, Range 10W of Section 19, 6th principal meridian, or Tract 48

CERTIFICATION

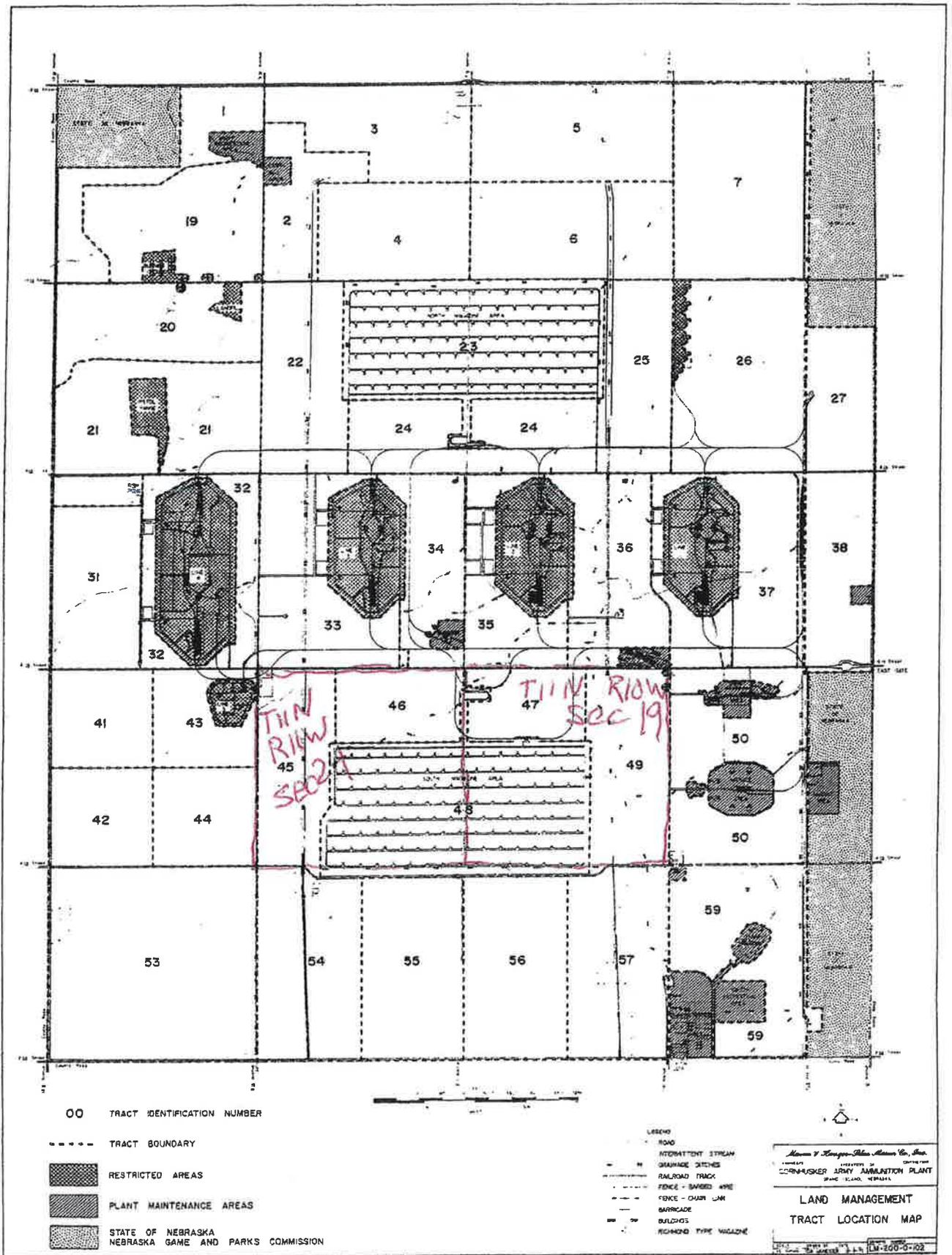
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Date 21 April 2016 Signature 
Type Name Mark A. Vess
Title President, Heritage Disposal & Storage L.L.C.

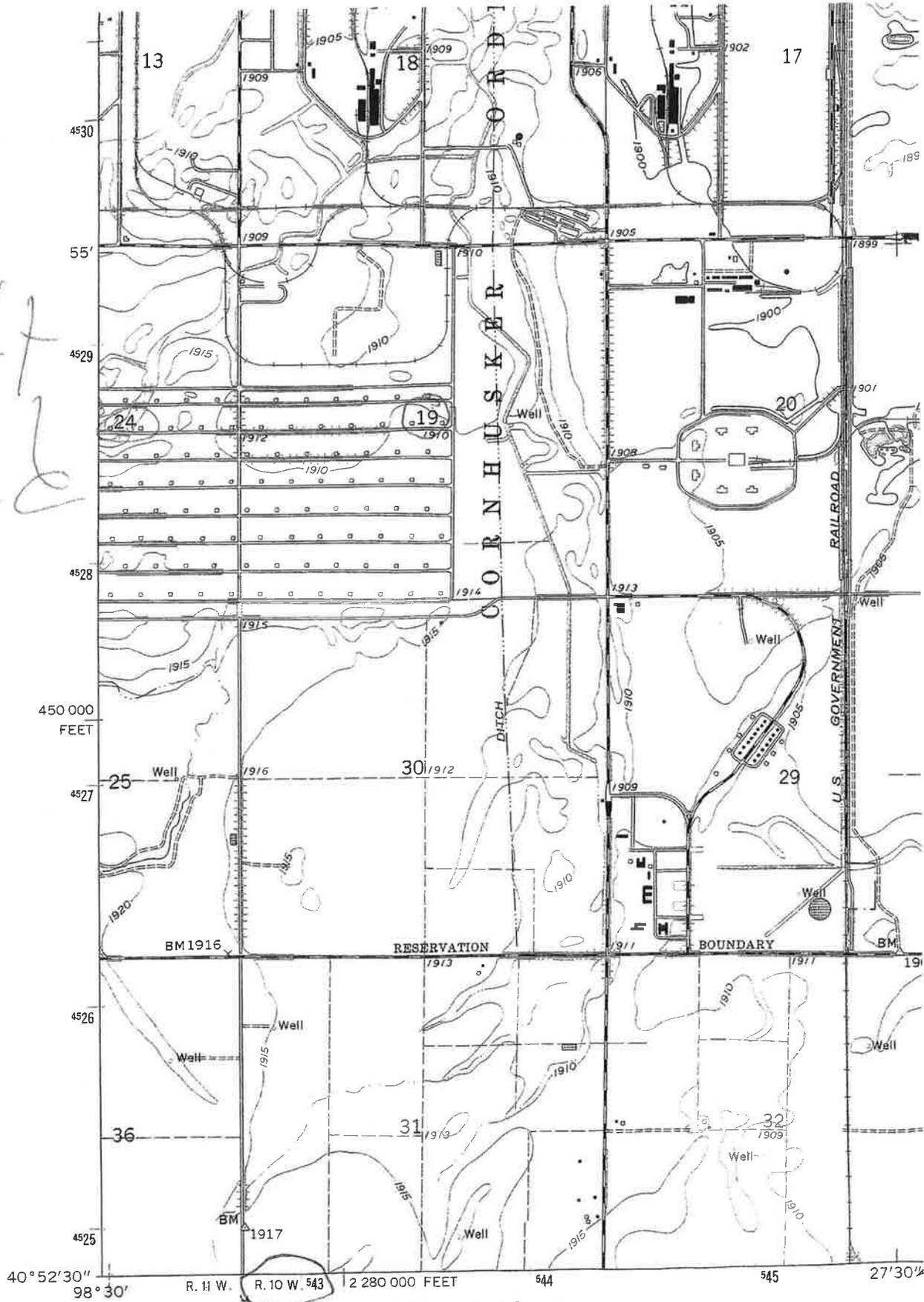
Subscribed and sworn to before me this 21st day of April, 20 16




Notary Public

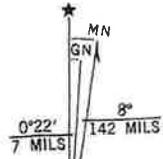


Abbott
Duel



(WOOD RIVER)
8285 / SE

Mapped, edited, and published by the Geological Survey as part of the Department of the Interior program for the development of the Missouri River Basin. Control by USGS, USC&GS, and U.S. Bureau of Reclamation. Planimetry by photogrammetric methods from aerial photographs taken 1951. Topography by planetable survey 1962. Polyconic projection. 1927 North American datum. 10,000-foot grid tied to Nebraska coordinate system, south zone.



**NOTICE OF INTENT TO APPLY FOR A PERMIT
TO OPERATE A
COMMERCIAL HAZARDOUS WASTE MANAGEMENT FACILITY**

Jim Received
4-8-16

APPLICANT: (a)

Name of Owner Heritage Disposal & Storage L.L.C.
Mailing Address P.O. Box 250
Alda, NE 68810-0250
Name of Operator Heritage Disposal & Storage L.L.C.
Mailing Address P.O. Box 250
Alda, NE 68810-0250
Name of Person to be contacted: Mark Vess
Mailing Address P.O. Box 103, Alda, NE 68810-0103
Telephone Number (308) 850-8457
E-mail Address mark@heritage-ds.com

PROPOSED FACILITY:

Type (Treatment/Storage/Disposal): Treatment / Storage
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Alda, NE 68810
Legal Description (b): Township 011N, Range 011W, Section 24, 6th principal meridian
The plant will be located on what is considered Tract 46 of the Former Cornhusker Army Ammunition Plant.

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and compete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

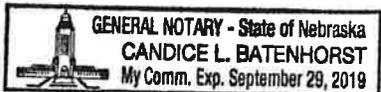
Date 8 April 2016

Signature *Mark A. Vess*

Type Name Mark A. Vess

Title President, Heritage Disposal & Storage L.L.C.

Subscribed and sworn to before me this 8th day of April, 20 16



Candice L. Batenhorst
Notary Public

Terms and Acronyms

Term or Acronym	Definition
APC	Air Pollution Control
ATF	U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives
BACT	Best Available Control Technology
Bottom Ash	Part of the non-combustible residue of combustion in a furnace or incinerator.
DoD	Department of Defense
EPA	Environmental Protection Agency
Fly Ash	Ash produced in small dark flecks, typically from a furnace, which is capable of being carried into the air.
HC Smoke	Hexachloroethane Smoke - commonly found in smoke grenades and smoke pots used by the military to create smoke screens
ICS	Incident Command System
LB	Legislative Bill
MDAS	Material Documented As Safe
MEB	Mass and Energy Balance
NDEQ	Nebraska Department of Environmental Quality
NEW	Net Explosive Weight
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
RCRA	Resource Conservation and Recovery Act
SOP	Standard Operating Procedures
SRC	Site Review Committee
TDS	Treatment, Disposal, and Storage
UNPPC	University of Nebraska Public Policy Center