

US EPA ARCHIVE DOCUMENT

## MEMORANDUM

**SUBJECT:** Comments on draft report “Coal Ash Impoundment – Site Assessment Draft Report – Stanton Station – Great River Energy – Stanton, North Dakota.”

**DATE:** June 29, 2012

### EPA Comments:

1. On page 9, Section 3.1 “Site Information and History,” 5<sup>th</sup> line, replace "setting" with "settling."
2. On pages 13-14, Section 3.5 “Geotechnical Considerations,” it may be advantageous for the contractor to provide the calculated factors of safety against structural failure derived by the Stone & Webster and/or the Golder report along with associated minimum acceptable factors of safety by US ACE for each loading condition analyzed for each embankment section.
3. On page 15, Section 3.8 “Hazard Classification,” the statement “the material (CCR) is not toxic” may be advantageously stricken from the report.
4. On page 21, Section 4.3.3: Can the following statement be elaborated on; does the “increasing level of fill” effectively raising the toe of the embankment?: "The west embankment toe area is adjacent to the bottom ash landfill, and thus the pond embankment is supported by an increasing level of fill." Same question for Section 4.3.4: "The west embankment toe area is adjacent to the bottom ash landfill, and thus the pond embankment is supported by an increasing level of fill."
5. On page 22, Section 4.3.7, please spell out EAP and O&M when first appear.
6. In section 4, Photo 9 states: "Bulging of Original Landside East Embankment (looking south)" This comment does not appear in the text portion of Section 4, nor is it clear which unit in which it is referring. Not all photos are clear as to which unit is in the photo.
7. On page 43, Section 5.1, please underline the heading "Structural Stability."
8. On page 43, Section 5.1 “Analysis and Conclusions,” the report details that the minimum factor of safety computed was 1.9 for static loading conditions and the minimum factor of safety computed was 2.1 for dynamic seismic loading conditions. It may be advantageous for the contractor to speak to the greater computed value under seismic loading than static loading, as this calculation seems atypical to results in other structural stability analyses and throughout engineering.
9. The report should discuss the presence or absence of a formal hydrology and hydraulics analyses. This is briefly noted in section 3.4 “Hydrology and Hydraulics,” stating “The (Stone & Webster) report did not contain any discussion of site hydrology or impoundment break analyses.” The contractor should speak to the adequacy of the units to pass a design storm, if such information was submitted to the contractor. If information submitted to contractor seems to indicate the potential for overtopping of an impoundment in a design storm event, the contractor should speak to the potential for a progressive structural failure and dam breach due to overtopping of the embankment. If there is a lack of H/H analyses, this should be included in contractor recommendations in Section 6.2 “Priority 1 Recommendations.”

10. The report should discuss the presence or absence of instrumentation.
11. On page 43, Section 5.1, the following statement is made: "In light of the south sluice pipe that failed in 2010 and eroded a section of embankment, this area should be repaired with engineered fill to sustain another possible sluice pipe failure. The contractor understands that GRE documented this issue as an "Action Item."" This statement appears as if this failure had been previously discussed, which it was not. Nor is this mentioned on the checklist sheet for the question: "Has there ever been a failure at this site?" Please expand on this discussion.
12. On Plate 3 of the Appendix, Figure "Ash Ponds – Site Features Map," the names of the impoundments used to identify units in the aerial photograph should be consistent w/ the names used in the report, i.e. North Ash Pond, Center Drainage Pond, South Ash Pond.



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August 24, 2012

Mr. Stephen Hoffman  
U.S. Environmental Protection Agency  
Two Potomac Yard  
2733 South Crystal Drive  
5<sup>th</sup> Floor, N-5237  
Arlington, VA 22202-2733

**RE: Comments on EPA Coal Ash Impoundment Site Assessment Draft Report for Great River Energy's Stanton Station, Stanton, North Dakota**

Dear Mr. Hoffman:

Great River Energy (GRE) received and has reviewed the Coal Ash Impoundment Site Assessment Draft Report for Stanton Station dated May 10, 2012 (received June 29, 2012). This draft report resulted from the site assessment of the North, Center, and South Cells of the Bottom Ash Surface Impoundment, conducted by the U.S. Environmental Protection Agency's (EPA) contractor, Kleinfelder, on May 18, 2011. GRE appreciates the opportunity to provide comments on the draft report before it is finalized. This letter provides GRE's comments on the draft report, particularly responses to report recommendations.

**Management Unit Condition and Potential Hazard Rating**

We are pleased that the report concludes that the coal combustion product (CCP) management units at Stanton Station are in "Satisfactory" condition. We also agree with the report's recommended potential hazard rating as "Less Than Low" for the three impoundments.

**Comments on Draft Report**

Factual corrections to the draft report are listed below:

**3.7 Performance Evaluations:** Great River Energy also retained Golder Associates to perform site evaluations in the fall of 2009 as part of their 2010 stability analyses reports discussed previously.

## **Report Recommendations**

The draft report includes six recommendations; those recommendations are provided below, followed by GRE's responses.

1. ***Prepare an Emergency Action Plan (EAP) for the facility by October 31, 2012. An EAP should be prepared for the Ash Pond Facilities. The EAP could be a very short and straightforward document that basically documents that sufficient volume exists on GRE property to contain releases, and outlines procedures to undertake in the event of an unplanned release, including spill mitigation procedures and phone calls to key plant personnel and any interested and potentially impacted parties.***

**GRE Response** – Stanton Station has a Site Emergency Plan Safety Procedure (attached) for the entire site that is regularly reviewed and updated. This procedure provides for a site-wide uniform procedure for notification, response, and reporting of a chemical spill or release. This procedure will be updated to explicitly include a release of CCP material from the CCP management units and will define the notification procedure for such a release (North Dakota Department of Health, State Engineer). As stated in the draft report, sufficient volume exists on Stanton Station property to contain a release from the CCP management units. This information will be added to the Contingency Plans section of the CCP management units' Operation Plan, which will also reference the site Emergency Response Safety Procedure.

2. ***Control burrowing animals on the downstream slopes. Develop and implement an animal control program by October 31, 2012. Refer to FEMA publication 473, Technical Manual for Dam Owners, Impacts of Animals on Earthen Dams. That manual is available on the FEMA website.***

**GRE Response** – The control and repair of animal burrows on the embankments of the CCP management units is part of GRE's ongoing maintenance practice. GRE is in the process of repairing the existing burrows identified by Kleinfelder. Additional information on animal burrowing control will be added to the Bottom Ash Surface Impoundment Operations Plan.

3. ***Repair embankment scarps and sloughs by October 31, 2012. Minor surface scarps or sloughs were noted at the toe of the north outer embankment at the North Ash Pond and on the slope of the east outer embankment of all three ponds. These minor scarps should be repaired and revegetated to prevent progressive failures.***

**GRE Response** – The identification and correction of minor surface scarps or sloughs on the embankments of the CCP management units is part of GRE's ongoing maintenance practice. GRE is currently developing a construction bid package that will repair the minor surface scarps or sloughs identified by Kleinfelder. GRE will continue to evaluate the facility during regular inspections and correct it in a timely manner.

- 4. Maintain a log of maintenance and other activities at the impoundments and supporting facilities by October 31, 2012. We have seen examples of monthly walk around inspection reports of the ponds. Other documentation may exist that catalogs routine maintenance and repair activities, and if so, those should be collected and bound in a notebook in a secure location if that practice is not being followed currently. We believe that this log will provide continuity during periods of staff change.*

**GRE Response** – GRE currently maintains a record of inspections and maintenance Work Orders for the Bottom Ash Surface Impoundment facility on GRE’s electronic workspace accessible to GRE employees. This system may not have been sufficiently described to the Kleinfelder engineers. The system automatically initiates work orders for scheduled inspections and maintenance, and is the method by which site personnel initiate maintenance and repair needs based on site operations and inspection observations. GRE’s best management practice is to use the electronic document to assure that outdated documents do not exist. Stanton Station employs an Environmental Management System that is ISO 14001 registered and that utilizes this best management practice.

- 5. Update the Operation and Maintenance (O&M) Manual for the impoundments and the facility by October 31, 2012. The O&M manual should include the EAP (discussed above) and a section on animal control.*

**GRE Response** – As stated above, GRE will update the Bottom Ash Surface Impoundment Operations Plan to include specific information on the Site Emergency Plan Safety Procedure as well as information on an animal burrowing control program.

- 6. Perform video assessments of culvert piping by October 31, 2012. This would include only the outlet culvert piping from the Center Drainage Pond. The video survey should determine the condition of the pipe for at least 100 feet beyond the North Ash Pond embankment. Because the remaining piping is located within the interior divider berms, video survey of those pipes does not appear to be necessary.*

**GRE Response** – GRE disagrees with performing this assessment of outlet piping from the Center Retention Cell based on operational characteristics of the Stanton Station Bottom Ash Surface Impoundment. Unlike a dam where indirect and uncontrollable natural influences (i.e., run-on) may cause excess water to build up and overtop a dam, water levels (inflows) in these facilities are directly controlled by plant operations. If a problem with the outlet lines from the Center Retention Cell were to exist, GRE has the ability to reduce or eliminate inflows to the Center Retention Cell until outlet lines are repaired. Since GRE can control the inflow to the Bottom Ash Surface Impoundment, blockage of these lines would not lead to an overtopping condition. This recommendation relates to plant operations and not impoundment stability.

Mr. Stephen Hoffman  
August 24, 2012  
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Thank you for this opportunity to comment. If you have any questions concerning our comments or the information we have provided, please contact Jennifer Charles at 701-442-7081.

Sincerely,

Mary Jo Roth  
Manager, Environmental Services

c: Jennifer Charles

Attachment: *Great River Energy, Stanton Station Procedure, Subject: Stanton Station Site  
Emergency Plan (1/20/2012)*

<b>GREAT RIVER ENERGY STANTON STATION PROCEDURE</b>				
<b>Origination Date:</b> 1/15/2006	<b>Procedure No.:</b> 400-2	<b>Revision No.:</b> 05	<b>Date Revised:</b> 1/20/2012	<b>Page:</b> 1 of 21
<b>Affected Area(s): Plant wide</b>			<b>Originating Department: Operations / Safety</b>	
			<b>Final Approval:</b>  <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-family: cursive; color: blue;">Steve Richter</div> <div>1/20/2012</div> </div>	
<b>Subject: Stanton Station Site Emergency Plan</b>				

**I. Purpose**

To provide a consistent guide to aid all plant personnel in training for, managing, and responding to an emergency and or disaster.

**II. Scope**

Develop and maintain an effective emergency response system to insure the safety of plant personnel and equipment. The emergency plan will be divided into five major categories.

- A. Operational Incidents
- B. Hazardous Material Releases
- C. Serious Injuries
- D. Homeland Security Issues
- F. Severe Weather

**III. Responsibility**

- A. The plant Safety Administrator and Leader, Plant Operations are responsible for the administration of the Emergency Plan.
- B. All supervision shall insure that their employees are trained on this plan and that it is readily available for their viewing.
- C. The safety committee will assist in evaluating an "Incident Action Plan "for any possible emergency that might occur.
- D. There will be an annual review of this procedure and input from all plant employees will be encouraged for improvements.



#### IV. Definitions

##### A. *Incident Command System*

1. Provides on scene chain of command to coordinate and manage an emergency.
2. The Leader, Plant Operations will be the designated Incident Commander.

##### B. *Emergency Log*

1. The control room operators will keep a detailed log of events and times during any emergency.

##### C. *Incident Action Plan*

1. A plan for dealing with any emergency large or small.

##### D. *Post Emergency Incident Review*

1. Review of the incident to provide feedback on both the positive and negative aspects of the response.
2. Will occur within 1 week of the incident and would be facilitated by Safety Administrator and Leader, Plant Operations.

##### E. *Types of Emergencies*

###### 1. Operational Incidents

- A. Fires
- B. Explosions
- C. Plant and or Transmission System Upsets

###### 2. Hazardous Material Releases. (Liquid or Gas)

###### A. Personnel Impact

1. Small: A release that could possibly cause injury, adverse health effects, to personnel inside the plant property.
2. Large: A release that could possibly cause injury, adverse health effects, or death to personnel inside the plant property and outside the plant property.

###### B. Environmental Impact

1. Small: A release of a reportable quantity.
2. Large: Release that could have impact outside of the facility and would require Hazmat Team cleanup.
3. Serious Injuries
  - A. Injuries requiring immediate medical assistance.
  - B. Fatalities
4. Homeland Security Issues
  - A. Sabotage
  - B. Bomb Threats
  - C. Armed Intrusion
5. Severe Weather
  - A. Severe Thunderstorms
  - B. Tornadoes
  - C. Winter Storms/ Blizzards
  - D. Flood
6. Emergency Response Training Program
  - F. *Emergency Response Team*

This will include the members of the Hazwoper, Rescue & First Responders, and Incipient Fire Team.  
Only members from the necessary team, relating to the emergency, will be asked to report too the incident site.

See Attachment #1.
  - G. *Emergency Classifications & Callouts*
    1. Class 1: An emergency that can be controlled by the personnel in the work area. Example: Incipient Fire
    2. Class 2: Would require the assistance of the Emergency Response Team.
    3. Class 3: Would require the assistance of outside response teams and all

off duty personnel deemed necessary by the Incident Commander.

H. *Plant Emergency Communications Systems*

1. Fire Alarms: If a fire alarm is activated, all personnel should evacuate that area and gather in the designated locations and remain there until the all clear is given. These systems can be activated manually or automatically.  
All properly trained personnel will respond to the fire and carryout the necessary actions.
2. Radios: Channel 1 will be the designated emergency channel. All personnel reporting to the incident site should try to bring a radio with them. BNSF will be notified via radio from the control room and informed of the emergency and be instructed to move or split the train if necessary.
3. Gai-Tronics: Operations will utilize this system to inform all non-essential personnel to evacuate as well as the all clear when the incident is over. Channel 1 must be kept clear for emergency communication.
4. Emergency Sirens: These are located throughout the plant and are activated from the control room.
  - A. Steady Tone: This tone will be used for all emergencies followed by detailed information about the type and location of the emergency.

I. *Emergency Phone Numbers*

Control Room	745-5212
Leader, Plant Operations	745-5252

J. *Post Emergency Media Requests*

All media requests will be referred to the Manager, ND Operations Services and or the Communication’s Department.

K. *Shelter In Place*

This procedure will be used when a plant wide evacuation is too hazardous. Predetermined areas will be assigned as Shelter In Place gathering areas. Once everyone is inside the HVACs will all be shutdown and all vents, doors, windows, etc. will be sealed with plastic and duct tape. Shelter In Place kits will be provided for each area. The kits will include necessary precut materials to aid in quick sealing of the Shelter In Place.

See attachment #3.

**1. Emergency Procedure for Fire and or Explosion**

- A. The Incident Command System will be implemented for all emergencies.
1. The Leader, Plant Operations will be the Incident Commander.
  2. The control room will be the designated Command Post unless the Incident Commander designates another location due to the nature of the emergency.
  3. The Incident Commander will access the emergency and decide the class and what response is necessary.
- B. Actions and Responsibilities Following the Discovery of an Incident
1. The person or persons who discover the incident will immediately inform the Operations Supervisor and the Control Room Operators via Gai-Tronics, Radio "1" Channel, or Phone.
  2. Leader, Plant Operations/Incident Commander Responsibilities
    - A. Will assume the Incident Commander Function.
    - B. Report to the site of the incident and initiate an emergency action plan.
    - C. Will account for all the members of their crew.
    - D. Tend to any injured personnel.
    - E. Direct the isolation of any involved equipment in a safe and defensive manner.
    - F. Direct the control room to call 911 and request the necessary assistance from off site agencies. Direct the control room to call in emergency team members and any other employee deemed necessary during off shifts.
    - G. Initiate a partial or total plant evacuation
    - H. Meet any off site agencies at the designated Command Post and direct them to the site of the incident. Inform them of any known hazards or other useful information.
    - I. Will contact and update the Manager, ND Operations Services and Safety Administrator on all Class 2 & Class 3 emergencies.
  3. Safety Administrator Responsibilities.
    - A. Will be the assigned Safety Officer. "Mon-Fri 0700-1530 Hrs."
    - B. Will assist the Incident Commander as needed.
    - C. Keep all non-essential personnel clear of the area.
  4. Maintenance, E&I, Utility, Engineering Supervisor Responsibilities

- A. Will insure that all their employees and all contractors are accounted for and safe. Will then inform the Incident Commander that all personnel are accounted for. If an employee or contractor is missing then the Incident Commander must be notified as to who is missing and what area they were working in or the place they were last seen.
  - B. Will report to the Command Post to provide assistance as designated by the Incident Commander.
5. Emergency Response Team Responsibilities.
- A. Will report to the site of the incident with necessary PPE.
  - B. They will work under the direction of the Incident Commander and the assigned Safety Officer.
6. Control Room Operator Responsibilities
- A. Activate the necessary alarms.
  - B. Make sure that the Operations Shift Supervisor has been notified.
  - C. Inform all plant employees and contractors to cease all hot work. Via the gai-tronics system. With the following message **“Fire In ( Exact Location) All Employees Report to Designated Fire Response Areas.**
  - D. If necessary contact BNSF via the radio and notify them of the emergency and have the main entrance to the plant cleared.
  - E. If necessary will initiate a plant wide evacuation if so directed by the Incident Commander.  
  
Gathering area is the parking lot, but if conditions make that an unsafe area then the fly ash silo area is the next option.
  - F. Make necessary operational adjustments due to the nature of the emergency. This may include tripping out both boilers and the turbine/generator.
  - G. Start an Emergency Log. This will provide a timetable of events and Keep a running list of people involved in the emergency response.
  - H. Contact off site agencies via 911 if so directed by the Incident Commander.
  - I. Call in members of the emergency response team and other essential Employees as directed by the Incident Commander. Call out list with Home phones numbers will be listed in the control room. See Attachment 1.
  - J. Assist the Incident Commander in deploying support staff to the

site of the incident.

#### 7. Auxiliary Operator/ Operations Relief Crew Responsibilities

- A. Report to the incident site with a radio on channel 1 and assist as directed by the Incident Commander.  
If the emergency is fire related bring a F-500 extinguisher. Once at the fire, from a safe location roll out and energize the nearest two fire hoses and standby for instructions from the Incident Commander.
- B. Perform any necessary equipment isolation.
- C. Monitor the fire pump as needed in a fire emergency.
- D. Assist in plant shutdown as directed.
- E. Assist and support the Emergency Response Team when on site.
- F. May be assigned to meet any off site emergency response agencies at the main entrance to the plant and escort them to the incident site.
- G. De-energize any necessary equipment as so directed by the Incident Commander or CROs.

#### 8. Electrician Responsibilities

- A. Two electricians will report to the Incident Commander at the site with a Radio on Channel 1. They will de-energize any equipment as instructed by the Incident Commander and provide any other necessary assistance.
- B. The other two electricians will report to the Command Center to assist as necessary.

#### 9. Warehouse Personnel Responsibilities

- A. Remain in the warehouse and aid in dispensing any necessary items requested by the Incident Commander and or Emergency Response Team.
- B. If the fire is in the warehouse or another outside building, they must notify the Operations Shift Supervisor and the Control Room.

#### 10. Remaining Personnel Responsibilities

- A. If plant evacuation is not necessary report to your Designated Fire Response Area, which is the Lewis & Clark room on first floor of the office area. After being accounted for by your supervisor you may be assigned support functions for the Emergency Response Team.
- B. If plant evacuation is initiated by the Incident Commander exit the

plant in an orderly fashion and report to the gathering area.

#### 11. Contractor Responsibilities

- A. Stop all hot work activities. Leave the plant area and report to the Lewis & Clark room for further instructions.
- B. Contractor Foremen will verify that all contract personnel are accounted for and relay this information to the Incident Commander.

## 2. Emergency Procedure for Hazardous Materials Release. "Gas or Liquid"

- A. The Incident Command System will be implemented for all HazMat related emergencies.
  - 1. The Leader, Plant Operations will be the Incident Commander.
  - 2. The control room will be the designated Command Post unless the Incident Commander designates another location due to the nature of the emergency.
  - 3. The Incident Commander will access the emergency and decide the class and what response is necessary.
- B. Actions and Responsibilities Following the Discovery of a Release.
  - 1. The person or persons that discover the release will immediately inform the Leader, Plant Operations and the Control Room Operators via Gai-Tronics, Radio "1" Channel, Phone.
  - 2. Leader, Plant Operations/Incident Commander Responsibilities
    - A. Will assume the Incident Commander Function.
    - B. Report to the site of the incident and initiate an emergency action plan.
    - C. Will account for all the members of their crew.
    - D. Tend to any injured personnel.
    - E. Direct the isolation of any involved equipment in a safe and defensive manner.
    - F. Direct the control room to call 911 and request the necessary assistance from off site agencies. Direct the control room to call the proper emergency team members and any other employee deemed necessary during off shifts.
    - G. Initiate a partial or total plant evacuation



- H. Meet any off site agencies at the designated Command Post and direct them to the site of the incident. Inform them of any known hazards or other useful information.
  - I. Will contact and update the Leader, Plant Operations and Safety Administrator on all Class 2 & Class 3 emergencies.
  - J. Inform the proper authorities of any possible impact to surrounding areas and citizens.
  - K. Shutdown all hot work activities including all motorized equipment and vehicles.
3. Safety Administrator Responsibilities.
- A. Will be the assigned Safety Officer. “ Mon-Fri 0700-1530 Hrs.”
  - B. Will assist the Incident Commander as needed.
  - C. Keep all non-essential personnel clear of the area.
  - D. Will coordinate the decontamination process after the incident is over.
4. Maintenance, E&I, Utility, Engineering Supervisor Responsibilities
- A. Will insure that all their employees and all contractors are accounted for and safe. Will then inform the Incident Commander that all personnel are accounted for. If an employee or contractor is missing then the Incident Commander must be notified as to who is missing and what area they were working in or the place they were last seen.
  - B. Will report to the Command Post to provide assistance as designated by the Incident Commander.
5. Emergency Response / HazMat Team Responsibilities.
- A. Will report to the site of the incident with necessary PPE.
  - B. They will work under the direction of the Incident Commander and the assigned Safety Officer.
6. Control Room Operator’s Responsibilities
- A. Activate the necessary alarms.
  - B. Make sure that the Leader, Plant Operations has been notified.
  - C. Inform all plant employees and contractors to cease all hot work. Via the gai-tronics system. With the following message  
**All Employees Report to Designated Shelter Areas.**



See Attachment #3.

- D. If necessary contact BNSF via the radio and notify them of the emergency and have the main entrance to the plant cleared.
  - E. If necessary will initiate a plant wide evacuation if so directed by the Incident Commander.  
Gathering area is the parking lot, but if conditions make that an unsafe area then the fly ash silo area is the next option.  
**Always evacuate the area crosswind from the release.**
  - F. Make necessary operational adjustments due to the nature of the emergency. This may include tripping out both boilers and the turbine/generator.
  - G. Start an Emergency Log. This will provide a timetable of events and Keep a running list of people involved in the emergency response.
  - H. Contact off site agencies via 911 if so directed by the Incident Commander.
  - I. Call in members of the emergency response teams and all other essential employees as directed by the Incident Commander. Call out list with employees home phone numbers will be posted in the control room.
  - J. Assist the Incident Commander in deploying support staff to the site of the incident.
7. Auxiliary Operator/ Operations Relief Crew Responsibilities
- A. Report to the incident site with a radio on channel 1 and assist as directed by the Incident Commander.  
Gather all spill response kits and bring them to the immediate area to help contain the spill if it is liquid.  
  
String out, charge, and man the nearest fire hoses. These may be used on a gas release to help dilute the gases and keeping the surrounding cool.
  - B. Perform any necessary equipment isolation.
  - C. Monitor the fire pump if needed.
  - D. Assist in plant shutdown as directed.
  - E. Assist and support the Emergency Response/ HazMat Team when on site.
  - F. May be assigned to meet any off site emergency response agencies at the main entrance to the plant and escort them to the incident site.

G. De-energize any necessary equipment as so directed by the Incident Commander or CROs.

H. Assist in the decontamination/cleanup process.

#### 8. Electrician Responsibilities

A. Two electricians will report to the Incident Commander at the site with a Radio on Channel 1. They will de-energize any equipment as instructed by the Incident Commander and provide any other necessary assistance.

B. The other two electricians will report to the Command Center to assist as necessary.

#### 9. Warehouse Personnel Responsibilities

A. Remain in the warehouse and aid in dispensing any necessary items requested by the Incident Commander and or Emergency Response/ HazMat Team.

#### 10. Remaining Personnel Responsibilities

A. If plant evacuation is not necessary report to your Designated Response Area. After being accounted for by your supervisor you may be assigned support functions for the Emergency Response Team.

B. If plant evacuation is initiated by the Incident Commander exit the plant in an orderly fashion. Exist crosswind to the release and report to your designated gathering area.

#### 11. Contractor Responsibilities

A. Stop all hot work activities. Leave the plant area and report to the Lewis & Clark room for further instructions.

B. Contractor Foremen will verify that all contract personnel are accounted for and relay this information to the Incident Commander.

#### C. Shelter In Place

The close proximity of the plant to the BNSF railway increase the risk of exposure to outside chemical releases should a derailment occur. Dakota Gasification Company ships several railcars of various chemicals past the plant each week. Some of the chemicals being shipped are Anhydrous Ammonia, Phenol, and Cresilic Acids. If a derailment occurs and the release is large enough a vapor cloud may prevent a plant wide evacuation. If this occurs the Leader, Plant Operations will have the alarm sounded and announce a shelter in place.

### 1. Leader, Plant Operations/Incident Commander Responsibilities

- A. Activate the emergency and announce that a plant wide Shelter In Place Emergency is in effect and that all employees and contractors must report to a designated Shelter In Place. The yard operator and security guard will be notified via radio and phone.
- B. Direct the control room to call 911 and request the necessary assistance from off site agencies. Direct the control room to call in emergency/hazmat team members and any other employee deemed necessary during off shifts.
- C. Will determine if the plant must be shutdown to minimize a possible explosion or fire should any vapor be drawn into the boiler.
- D. With the plant secured and all personnel accounted for the Leader, Plant Operations and rescue team member will don a SCBA and travel crosswind to the spill sight to assist with any injuries and access the severity of the spill. Radio contact with the control room will be maintained at all times.

### 2. Operations Personnel Responsibilities

- A. All operators will report to the control room and assist in the shelter in place preparations.
- B. Stay in contact with 911 to pass on any pertinent information

### 3. All Other Employees and or Contractor Responsibilities

- A. Report to the designated shelter in place area and assist in the preparations.
- B. Department supervisors and foremen will perform a head count and report their findings to the incident commander.

### 4. How to perform a Shelter In Place

- A. Close all window and doors.
- B. Shutdown all HVAC systems. Remote shutdown switches should be available.
- C. Seal all doors, window and vents with plastic and duct tape. These kits should pre-made and available in the designated areas, marked as "Shelter In Place Kit".

## 3. Emergency Procedure For Injuries to Personnel Requiring Medical Assistance

A. Upon injury to an employee, contract worker, or visitor the following must occur.

- 1. When in doubt call 911 and request an ambulance.
- 2. Notify the operations shift supervisor.

3. Notify the emergency response team. Medical first responder. If available.
  4. Notify the safety coordinator. If available.
  5. Provide assistance to the injured person until a medical first responder or ambulance arrives.
  6. Do not move the injured person, unless it is necessary to prevent more serious injuries and or death.
- B. The Leader, Plant Operations will assume the Incident Commander Role and perform the following duties.
1. Assure that emergency care is administered by a qualified person. In the absence of a medical first responder first aid shall be administered by a qualified person until the ambulance arrives. Assess the severity of the injured person or persons. Stay in contact with the ambulance crew via the telephone communicating back and forth with the control room operator, and the control room operator relaying info to the Incident Commander via 2-way radio.
  2. Take the necessary steps to reduce any further injury to the injured personnel and other plant personnel. Example: If the injured person was overcome by acid fumes from a leak. The source of leak must be found and contained or the area evacuated.
  3. Assign an operator to meet the ambulance at the front gate and guide them to emergency site.
  4. Barricade off the site and keep all non-essential personnel clear.
  5. Take pictures of the site and or equipment where the incident occurred.
  6. Interview any witnesses to the incident.
  7. Interview the injured person or persons as soon as possible.
  8. Provide a written Accident Report to the Safety Administrator & Manager, ND Operations Services within 24 hours.
  9. If the person or persons are transferred to the hospital the Manager, ND Operations Services will be responsible for contacting that person's family. In the Manager, ND Operations Services' absence the Leader, Plant Operations will contact the person's family.
  10. Notify OSHA within 8 hours if the accident results in a fatality or 3 or more people are injured and hospitalized.
- C. If a fatal injury occurs the Incident Commander will perform the following. \* **If a**

**fatal injury occurs, the accident scene immediately becomes a crime scene. Do not disturb the scene unless it is necessary to prevent further casualties or injuries.**

1. Notify the Manager, ND Operations Services.
2. Notify the Safety Administrator.
3. Notify Mercer County Sheriff's Department. 745-3333 or 911.
4. Notify representative of the GRE ND Communications group.
5. Barricade the area off and do not allow any non-essential personnel to enter.
6. Do not move the body or any associated equipment that may be related to the accident.
7. Take pictures and interview any witnesses to the accident.
8. The Manager, ND Operations Services and Human Resources Rep will be responsible for contacting the family. In the Manager, ND Operations Services absence the Leader, Plant Operations will assist HR in the notification.
9. If the deceased is a contractor or visitor the Manager, ND Operations Services will coordinate the notification of their family.
10. Provide a written Accident Report to the Safety Administrator & Manager, ND Operations Services within 24 hours.

#### **4. Emergency Procedure for Homeland Security Issues and NERC Standards**

As a means of protection from intentional sabotage to GRE Stanton Station generation facility several security upgrades have been installed. The entire facility is surrounded by a security fence. There is controlled access to the plant via a remote controlled gates. Security cameras in several locations also monitor the plant site.

New NERC standards have been put in place to cover security issues relating to sabotage and or vandalism with the intention of disrupting of the Bulk Electric System.

Although, the current critical assets covered under the NERC standards do not apply to the Generation Plants yet, GRE has formed a Generation Security Team to address certain issues.

GRE Security Procedure SOP 400-01 provides the guidelines for Stanton Station security program.

CIP-003 Security Policy: Connect The Dots/Facilities/Corporate Security

- A. Intentional sabotage or damage of plant property. Physical and or Cyber threats or damage. This applies to all incidents real or suspected. \* When in doubt notify.
1. Immediately report all incidents to the Leader, Plant Operations.
  2. Immediately call the Security Hotline ( 763-241-2222 ).
  3. Leader, Plant Operations shall determine if there is a continued threat to the facility and or personnel. If so he may direct the control room to call 911 and request law enforcement personnel to respond.
  4. All acts of sabotage or deliberate damage to plant property will be documented via camera and investigated. This may include law enforcement agencies from outside GRE.

Training Exercises: The control room may be contacted and questioned how they would respond to a physical or cyber threat. Steps 1-4 above would be the appropriate response.

B. Bomb Threats

1. Upon receiving a Bomb Threat you should do the following.
  - A. Write down the time.
  - B. Ask where the bomb is located.
  - C. What time the bomb is set to go off.
  - D. Ask the caller his name, phone number.
  - E. Try to determine the caller's sex, race, and ethnic background.
  - F. Fill out the Bomb Threat Checklist. See Attachment #4.
2. After receiving the Bomb Threat you should do the following.
  - A. Immediately inform the Leader, Plant Operations.
3. The Leader, Plant Operations performs the following functions.
  - A. Notify the Manager, ND Operations Services, if possible.
  - B. Notify local law enforcement agencies via 911. Request a bomb squad.
  - C. Notify Dispatch, MISO of the situation and the possibility of a rapid plant shutdown.
  - D. Direct the immediate evacuation of all non-essential personnel to leave the plant site and gather at the boat ramp parking lot and await for further instructions. All personnel will be accounted for by their supervisors.
  - E. Direct the emergency shutdown of the entire plant to a stable condition. \* **If Time permits a controlled shutdown, if not the trip buttons will be pushed on both boilers and the turbine/generator and all operations personnel will also evacuate the plant.**

### C. Armed Intrusion on the Plant site

**\* This can be an extremely dangerous situation and all personnel will have to make a quick personal decision. Fleeing the area and the plant site may be your only option. If this occurs you need to report to the Mercer County Sheriff's Office in Stanton so you can be accounted for.**

1. Do not approach the intruder or intruders.
2. Notify the Leader, Plant Operations and the control room of the intruder and their location.
3. Call 911 and request police assistance.
4. All personnel on site should find a safe place. If possible close and lock the door and barricade it if possible. Turn off all lights and remain quiet and still. Remain in your secure locations until the police issue an all clear.
5. The control room operators will do the following.
  - A. Close and lock all access doors to the control room.
  - B. Open the main entry gate to allow entry to all responding police departments.
  - C. They will stay on the telephone with the 911 operator and pass along any information.
  - D. Notify the entire plant via the gai-tronics of the impending emergency and instruct them to go to a safe location with a lockable door.
  - E. Notify MISO and Dispatch that an emergency plant shutdown may have to occur. Do not provide any further details.
6. Staff office personnel will secure the office area by closing and locking all entry points to the office area and remaining there until the police issue an all clear.

### 5. Emergency Plan For Dealing With Severe Weather.

- A. Tornadoes, Thunderstorms, Lightning, High Winds.
  1. When severe weather approaches the area and the plant. The Leader, Plant Operations will monitor the local weather radar and stay tuned to the National Weather Service.
  2. If a severe Thunderstorm and or Tornado Warning is posted for the area the Leader, Plant Operations will activate the emergency alarm from the control room and announce over the gai-tronics. **“Severe weather approaching. All personnel go to the designated Severe Weather Shelter”**  
See Attachment #3.  
The yard operator, BNSF and security guard will be notified and told to report To a designated shelter inside of the plant.



3. Any startup or shutdown activities will be put on hold until the severe weather passes through the area.
4. MISO and Dispatch will be notified of possible load reduction or plant trip out due to severe weather.
5. All operations personnel will report to the control room until the severe weather has passed. The door to the old Unit 10 area will be closed and secured.

B. Blizzards and Severe Winter Weather.

1. When severe winter weather and or blizzard warnings are posted for the area the Leader, Plant Operations will monitor the local weather radar and stay tuned to the National Weather Service. The local temperature and wind speed will also be watched closely.
2. All non-essential outside work or rounds will be temporarily suspended.
3. Any operations personnel going outside due to necessary circumstances will first notify the control room and must carry a radio set on Channel 1.
4. The Leader, Plant Operations will determine plant output. Load may have to be reduced to minimize coal usage if it is too dangerous to have a yard operator out on the pile pushing coal.
5. The Leader, Plant Operations through agreement with the Manager, ND Operations Services may determine that all non-essential personnel should be allowed to leave the plant early to allow them to travel home in the daylight and before the weather gets worse.
6. The Leader, Plant Operations will work closely with the supervisors from all the other departments to determine which personnel should remain at the plant to support the operations department. This may include a person from E&I, Maintenance and Utility departments.
7. The Leader, Plant Operations may also require the next operations shift to report to work early and require some or the entire current shift to stay at work in case the winter storm sets in for a few days and travel to and from the plant becomes impossible or just dangerous.
8. A minimum of two Leaders, Plant Operations will remain on plant site whenever additional operations personnel are required to stay at the plant.
9. During periods of severe weather when several personnel are required to stay at the plant site outside their normally scheduled work schedule. Every attempt will be made to provide each employee proper time to sleep and or rest. During these special circumstances the Leader, Plant Operations will be responsible to see that a fair rotation is adhered to.
10. Every attempt will be made to provide food and sleeping accommodations to all personnel required to stay at the plant for extended periods.

C. Flooding Due to Emergency Releases From The Garrison Dam

1. The Leader, Plant Operations will work closely with local authorities and the Corp of Engineers. As the predicted crest elevations of the Missouri River are determined, the Manager, ND Operations Services in conjunction with the Leader, Plant Operations will decide which non-essential personnel will be released from work and are to stay home until they are notified.



2. Every effort will be made to build a earth berm around the plant and the switchyard to provide additional protection to the plant should the river crest outside its banks.
3. If the predicted crest is high enough to put the plant and or personnel in danger the plant will be shutdown in a controlled manner and all power to and from the high voltage power lines will be disconnected remotely by dispatch at the necessary location.
4. The plant will then be evacuated with the Leader, Plant Operations verifying that all personnel have left the plant site.
5. All personnel will be notified by their respective supervisors when it is safe to report back to work.

## 7. Emergency Response Training Program

1. The Safety Administrator will be responsible for establishing and maintaining a training program for all emergency response teams. As well as the training of all other employees in the use of portable fire extinguishers.
2. The training will be conducted by the Safety Administrator and or outside safety specialists that are licensed and certified in their field.
3. The training will be held in accordance with plant requirements and all team members will be kept up to date on all required training and certifications.
4. Training will include but not be limited to the listed subjects.
  - A. Portable fire extinguisher training.
  - B. Fighting fire utilizing a fire hose and fire team system.
  - C. Coal bunker fire fighting utilizing F-500 bunker lance and injection system.
  - D. Confined space rescue.
  - E. CPR Training.
  - F. First Aid Training.
  - G. Haz/Mat, HazWhopper training.
  - H. Incident Command System training.
  - I. First Responder Training
5. Each department Leader is responsible for insuring that the team members are released from their normal duties to attend all training.  
In operations overtime will be utilized as necessary to allow all team members to attend the required training, both on-site and off.
6. Unannounced preplanned drills will be conducted by the Safety Administrator and or the Leader, Plant Operations. A review of these drills will be conducted, to evaluate the response time and effectiveness.  
The drills may include the following.

- A. Severe Weather.
- B. Plant wide evacuation.
- C. Fire
- D. Serious Injury/ Man down.
- E. Hazardous material spill or release.
- F. Shelter In Place

## Attachment #1 Emergency Response Team

### A. First Responders

Name	Phone #
Rick Steiner	462-3329
Dave Isaak	487-3492
George Buchholz	462-3388
Jim Wasem	748-6230
Ben Perkerewicz	419-340-1237
Josh Fuchs	471-0126
Ken Wolf	748-5664

### B. Hazmat/Hazwoper

Name	Phone #
Steve Smokey	222-4368
Myron Mutzenberger	748-2021
Larry Gruenberg	462-3562
Ben Perkerewicz	419-340-1237
Josh Fuchs	471-0126
Ken Wolf	748-5664

### C. Rescue Team

Name	Phone#
Dwight Berger	794-3508
Stacie Bornemann	748-6915
Mike Bosch	748-6023
George Buchholz	462-3388
Dave Isaak	487-3492
Rick Steiner	462-3329
Dean Kessler	748-5410
Larry Gruenberg	462-3562

### D. Incipient Fire Team

All operations & yard operators

## Attachment #2 Emergency Contact List

<u>Contact</u>	<u>Name</u>	<u>Phone #</u>
Police and Fire:	Dispatch	911
Manager, ND Operations Services:	Steve Richter	748-5554
Safety Administrator:	Greg McKee	748-5380
Leaders, Plant Operations:	Bruce Ogden	751-2767
	Wade Aanderud	873-4641
	Joann Maloney	224-0681
	Steve Sasse	873-4548
	Tyler James	748-3928
	Kyle Tschosik	734-6982
Leader, Plant Maintenance:	Randy Leinius	794-3704
Leader, Plant Engineering:	Bob Johnson	748-5330
HR	Diana Despres	462-3914
Communications	Lyndon Anderson	391-0759

## Attachment #3 Designated Shelters for Emergencies

### Severe Weather Emergency

Operations: Control Room  
 Non-essential Employees and contractors: First floor locker rooms and the exercise room.

### Bomb Threat Emergency

Operations: Control Room at first. Evacuation may be necessary  
 Non-essential Employees and contractors: Evacuate and report to the boat landing.

### Shelter In Place Emergency

Operations: Control Room  
 Non-essential Employees and contractors: The main lunchroom and lab areas.  
 Staff Personnel: Office Areas

### Armed Intruder Emergency

Nearest secure location where the entry point can be locked or barricaded.

If evacuating the plant report to the Mercer County Sheriff's office in Stanton.

### Fire/Hazardous Material Release Emergency

Operations: Control Room  
 Non-essential Employees and contractors: Lewis & Clark room.

If evacuation is necessary the outside gathering areas will be the car port or the fly ash silo area.

### RECORD OF CHANGES TO THIS DOCUMENT

Revision Number	Description of Revision
03	Added footer, updated doc control
04	Updates to Homeland Security and Responding to Injured Personnel
05	Updates to title changes and names.