Appendix A

Emergency Response Procedures (ERP) 00 through 09

Emergency Response Procedures

ERP-00 - Incident Discovery

ERP-01 - Incident Assessment

ERP-02 - Medical Emergency Procedure

ERP-03 - Emergency Evacuation Procedure

ERP-04 - Fire and/or Explosion Procedure

ERP-05 - Spill/Release Procedure

ERP-06 - Security Disturbance, Bomb Threat Procedure and, Suspicious Mail/Packages

ERP-07 - Utility Failure Procedure

ERP-08 - Severe Weather Procedure

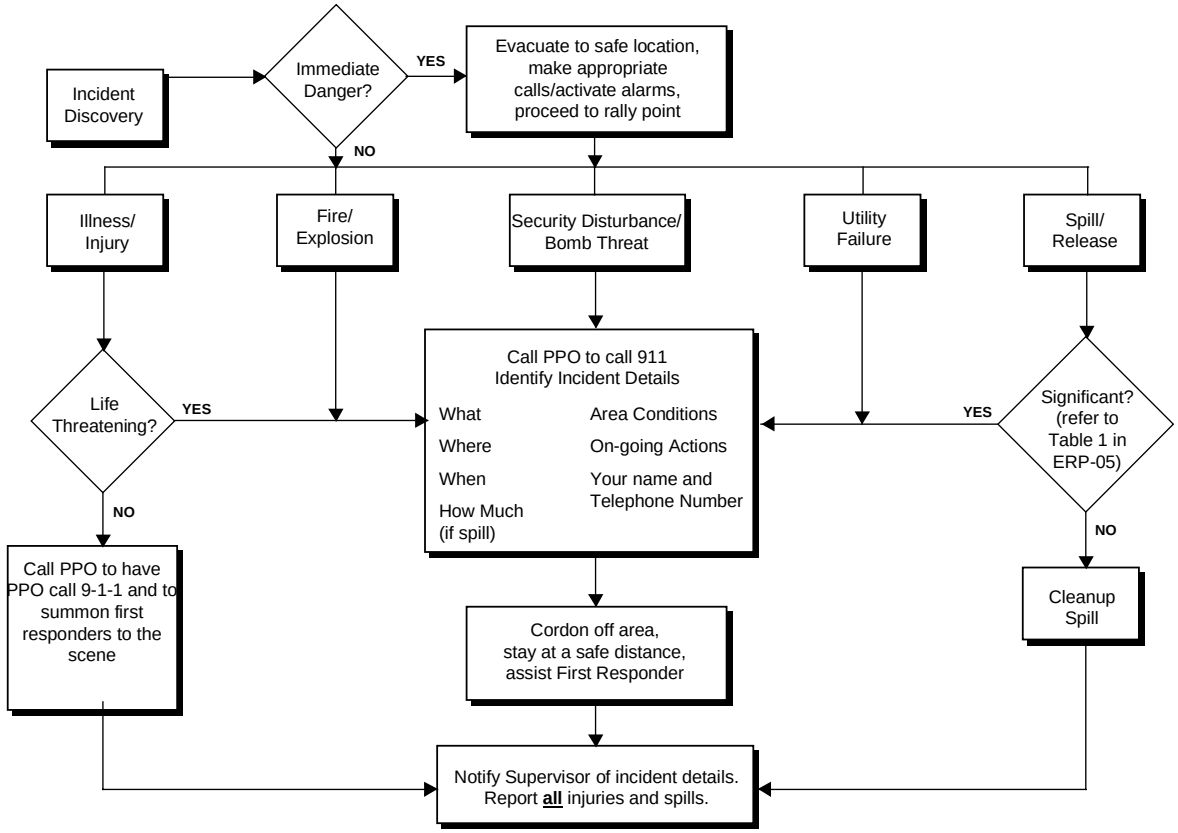
ERP-09 - Anhydrous Ammonia Release Procedure

ERP-010 – Civil Strife and Sabotage/Terrorism Threat Procedure

ERP-00 – INCIDENT DISCOVERY

The objective of this Incident Discovery Procedure is to describe the appropriate response actions to take when an observed or potential incident is initially identified at the Newington Energy facility. The person detecting an incident can provide immediate action to either facilitate subsequent response actions, or resolve the incident. A flowchart describing these actions is provided below. This procedure shall be followed by all personnel at Newington Energy.

FIGURE 1
INCIDENT DISCOVERY AND INITIAL INTERNAL REPORTING
GEPS - Newington Energy



INCIDENT DISCOVERY RESPONSE STEPS

1. If the incident presents an immediate danger (threat of explosion, fire, vapor hazard), evacuate to a safe location and activate the appropriate alarms or make calls and then proceed to a designated Rally Point, if necessary. Remain in that location until otherwise directed by a First Responder or Incident Commander. The safe place of refuge within the plant is the Control Room and will be used as the command center, assuming that it is determined by the Incident Commander to be clear of hazards.

2a. If you detect an observed or potential emergency such as a life-threatening illness/injury; fire/explosion; significant spill/release; security disturbance/bomb threat; utility failure; and/or anhydrous ammonia release at the facility, call the Control Room.

2b. If illness/injury is not life-threatening, call the Control Room

2c. <u>If the nature of the incident is such that it is safe to take action and it is within your normal job responsibilities,</u> initiate appropriate responses to contain the incident. Such actions are typically defensive or limited in nature, and may include:

- Closing valves to isolate a process or stop a leak, or securing or isolating the operating system (to be undertaken by trained operators).
- Containing and/or isolating a limited spill/release that is routine relative to your normal job responsibilities and is not considered to be significant (refer to ERP-05). Containment measures may include the placement of absorbent materials on and/or around the release, and blocking of floor drains or catch basins
- Cordoning off the area until appropriate response actions occur.
- Providing support within your capabilities to response personnel at the scene of the incident, as requested.

3. Provide the Control Room with, at a minimum, the following incident details Control Room to record on the attached form at the end of this section.
   - What
   - Where
   - When
   - How much (if spill/release)
   - Area conditions
   - Ongoing actions
   - Your name and telephone number

4. After the emergency has been terminated, the person who detected the emergency should participate in debriefing and emergency documentation.

5. Notify supervisor of incident details.

PERSONNEL SPECIFIC DUTIES

Any Employee

- Evacuate to safe location and activate appropriate alarms.
- Call Control Room.
- Initiate appropriate responses to contain the incident.
- Participate in debriefing.
- Notify supervisor of incident details.

Control Room

- Notify appropriate resources.

First Responders

- Respond to incident discovery to make an assessment and establish a plan to address the incident.

FORM ERP 00-1

EMERGENCY RESPONSE INCIDENT REPORT FORM (Revised 1/23/98)

Section 1: Power Plant Operator

Received Call/Notification from: _____Date:_____ Time: _____

Date and Time of Incident: _____ Location of incident (Bldg./Column)_____

Type of Incident ____ spill ____ fire/explosion ____ discharge to river? _____ Other (Describe)

Material released (if applicable):_____ Approx. amount _____

If spill, Machine #_____Type of Machine _____

Names of Responders Notified regarding spill:

Operator(s)_____

EHS Emergency Responder(s)_____

Plant EHS Contact:_____

Maintenance_____

Plant Manager _____

Any Injuries? (yes or no) If yes, describe _____

Other relevant information:_____

Name and Signature of Personnel Completing Section 1 of Incident Report Form:

_____ _____ _____

(Print Name) (Signature) (Date)

FORM ERP-00-1 (continued)

Section 2: EHS Emergency Responder/EHS Plant Contact (Review Section 1 and make changes if necessary (initial changes). Respond to Scene if possible. Complete all blank areas in this section, and file with Accident/Near Miss Investigation Check List. Note: If the incident is Operations related, EHS Plant Contact shall complete Section 2 and complete Accident/Near Miss Check List. If reportable incident, EHS Primary or Secondary Responder completes Section 2 and follows Emergency Response Protocol.

Date called: _____ Time called: _____ Responded to Scene? ____ Yes ____ No

Reportable Release (see Emergency Response Protocol) ? ____ Yes ____ No

Weather Conditions: _____

Released to: ___ Drain ____ Sewer _____ Pavement ____ Soil _____ Inside building

Released from: _____machine _____ fork lift _____truck _____ sump sucker ____ other (describe)

_____

If Reportable Release, EHS personnel shall complete below & attached Significant Event form and any other pertinent information:

Agencies Notified? (yes or no)	**Date of Notification**	**Time of Notification**	**Site Visit? (yes or no) If yes list date & time:**
NRC			
NHDES			
USEPA			
Coast Guard			
Other(s):			

Name and Signature of EHS person completing Section 2 of Incident Report Form:

_____ _____ _____

(Print Name) (Signature) (Date)

FORM ERP-00-2 **EPA SPILL RESPONSE NOTIFICATION FORM**		
A. GENERAL INFORMATION TO REPORT		
Reporters Last Name:	First:	M.I.:
Position:		
Phone Numbers:	Day:	Evening:
Company:		
Organization Type:		
Address:		
City:	State:	Zip Code:
Were Materials Discharged? (Y/N)	Confidential? (Y/N)	
Meeting Federal Obligations to Report (Y/N)		Date Called:
Calling for Responsible Party? (Y/N)		Time Called:
B. INCIDENT DESCRIPTION		
Source and/or Cause of Incident:		
Date of Incident::	Time of Incident:	
Nearest City:	State:	County: Zip:
Distance from City:	Units of Measure:	Direction from City:
Section:	Township:	Range: Borough:
Container Type:	Tank Oil Storage Capacity:	Units of Measure:
Facility Oil Storage Capacity:	Units of Measure:	
Facility Latitude: 42^{o}27'08"		
Facility Longitude: 70^{o}58'23"		

FORM ERP-00-2
EPA SPILL RESPONSE NOTIFICATION FORM

C. MATERIAL

CHRIS Code	Discharged Quantity	Unit of Measure	Material in Water	Quantity	Unit of Measure

D. RESPONSE ACTION

Actions taken to correct, control or mitigate incident:

E. IMPACT

Number of Injuries:	Number of Deaths:
Were there Evacuations? (Y/N)	Number of Evacuations:
Was there any Damage? (Y/N)	
Damage in Dollars (approximate):	
Medium Affected:	
Description:	
More Information about Medium:	

FORM ERP-00-2 **EPA SPILL RESPONSE NOTIFICATION FORM**		
F. ADDITIONAL INFORMATION		
Any information about the incident not recorded elsewhere in this report:		
F. CALLER NOTIFICATIONS		
EPA: (Y/N)	USCG: (Y/N)	State: (Y/N)
Other:	Describe:	

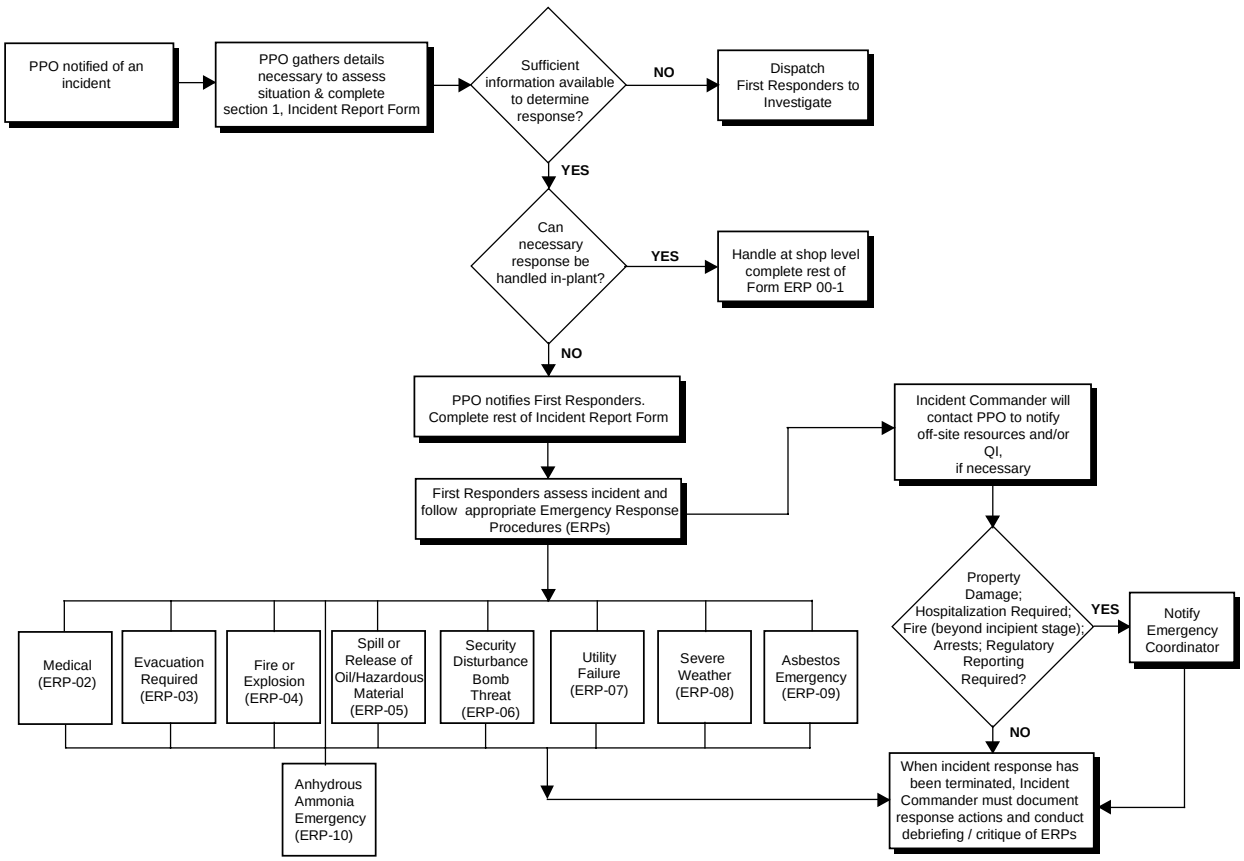
Note: Form ERP-00-2 is to be used to collect information for providing verbal notification to the National Response Center (NRC), and is for internal use only. It is not necessary to obtain all information required to complete this form before call the NRC. This form does not have to be submitted to an outside agency.

ERP-01 – INCIDENT ASSESSMENT

The objective of this Incident Assessment Procedure is to identify the appropriate response actions to take when first responding to an incident or potential emergency at the NEL facility. A flowchart describing these actions is provided below.

The Control Room and Responder(s) will maintain and complete an Incident Response Form throughout and at the completion of **all** incidents/emergencies reported to the CONTROL ROOM.

INCIDENT ASSESSMENT



Revision 3. 09/20/02

1. Follow Incident Discovery (ERP-00) Procedures.

2a. Upon receipt of notification of incident, PPO gathers sufficient information from notifier to determine appropriate response.

2b. If notifier can not provide sufficient information for the CONTROL ROOM to determine a response, the CONTROL ROOM shall dispatch First Responders to the scene or if First Responders unavailable contact appropriate Emergency Response Organization (9-1-1). The safe place of refuge within the plant is the CONTROL ROOM and will be used as the command center, assuming that it is determined by the Incident Commander to be clear of hazards.

3a. If the incident can not be handled at a facility level, the CONTROL ROOM notifies the appropriate responder(s). The following matrix (**Table 1**) provides a basic guide for notifications with additional notifications made as warranted by the incident.

3b. If injuries, fire, or an explosion are involved, CONTROL ROOM shall immediately call external 911 (Newington Fire) and provide sufficient information for the appropriate resources to be sent.

4. Emergency Responders and associated equipment arriving from off-site will access the site from either the north or south entrances from Old Dover Rd.

5. Following their arrival at the scene, the First Responder(s) must conduct a further evaluation of the situation to ensure that it is safe for them to survey the scene to determine if additional resources are needed to control the incident/emergency. In order to determine whether the incident is an emergency, and whether additional resources and/or the EHS Responder should be notified, these individuals should consider the following criteria:

- Fire, explosion or any event requiring emergency response by outside agencies.
- Spills or releases of oils/hazardous material beyond the capabilities of the on-shift responders.
- Spills of oils/hazardous materials and other potentially harmful liquids which have entered storm drains or the Piscataqua River, or which is uncontrolled and could spread.
- Spills or releases of unknown amount of hazardous material.
- Spills or releases of any amount of an unknown but potentially hazardous material.
- Any event that is likely to attract public interest and media attention.
- Any event where the situation is unclear, could deteriorate, and might require additional help.
- Injury
- Property Damage

Table 1

Responder	Medical (ERP-02)	Evacuation (ERP-03)	Fire or Explosion (ERP-04)	Spill or Release of OHM (ERP-05)	Bomb Threat (ERP-06)	Utility Failure (ERP-07)	Severe Weather (ERP-08)	Anhydrous Ammonia Release (ERP-10)
Power Plant Operators	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Newington Fire	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Facility Manager	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Operations Manager	**x**	**x**	**x (explosion)**	**x**	**x**	**x**	**x**	**x**
EH&S Manager	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**
Maint. Manager	**x**	**x**	**x**	**x**	**x**	**x**	**x**	**x**

6. Details regarding specific responses for emergency situations are provided in subsequent Emergency Response Procedures (ERPs).

7a. If the nature of the incident is such that off-site resources are required, the Incident Commander shall request the CONTROL ROOM to contact the appropriate resources identified in the Yellow Pages of this Plan.

7b. If additional technical assistance/guidance and/or regulatory notifications are required, the Incident Commander shall request the CONTROL ROOM to notify the EHS Responder.

8. The EHS Responder shall report to the scene if the situation can not be isolated quickly or a reportable condition may exist, and shall assume the role of Incident Commander.

9a. The EHS Responder shall request the CONTROL ROOM to notify the Emergency Coordinator (EC) if the incident/emergency involves:

- Property damage
- Hospitalization requirements
- Fire (beyond incipient) or Explosion
- Regulatory reporting requirements.

9b. Based upon the nature of the incident/emergency, the EC may activate the Emergency Response Organization (ERO) and request the CONTROL ROOM to notify the Qualified Individual, if necessary.

10. After the incident/emergency has been terminated, the Incident Commander documents the response actions and conduct debriefing/critique of ERPs.

PERSONNEL SPECIFIC DUTIES

Control Room (CONTROL ROOM)

- Dispatch In-plant First Responders, if necessary.
- Notify EHS Responder when requested by Incident Commander.
- Notify Emergency Coordinator in cases of property damage, fire (beyond incipient), hospitalization required, and regulatory reporting required, as requested by the Incident Commander.
- Serve as communications coordinator, log all communications
- Notify additional resources as directed by the Incident Commander.

First Responders

- Respond to all real and potential emergencies as directed by the CONTROL ROOM
- Coordinate with/assist other Responders.
- Assess the need for additional resources.
- Serve as Incident Commander of First Responders.
- Provide assistance with utility shut off and control.

Environmental Health and Safety

- EHS Responder and other EHS personnel patrol the area at a safe distance for additional safety and environmental hazards.
- Provide feedback to First Responders on necessity of further evacuation needs.
- Provide technical assistance/guidance to First Responders, serve as Incident Commander when on-site.
- Make regulatory notifications as directed by the Emergency Coordinator.

Emergency Coordinator

- Activate Emergency Response Organization (ERO), if necessary.
- Serve as Incident Commander, if required.
- Direct regulatory notifications.

- Request CONTROL ROOM to notify Qualified Individual, if necessary.

Incident Commander

- Coordinate Responders.
- Request CONTROL ROOM to make notifications for additional resources.
- Document Response Actions and conduct debriefing/critique of ERP.

ERP-02 – MEDICAL EMERGENCY PROCEDURE

The objective of this Emergency Response Procedure is to identify the appropriate actions to take when a medical emergency occurs.

1. If you detect a medical emergency at the facility, call the CONTROL ROOM. Give specific directions to the location of the victim(s). Provide the CONTROL ROOM with sufficient information to determine what response actions and resources are necessary.

2. If it is safe to do so, provide comfort and support to the victim(s) and wait near the scene to assist or direct other responders to the scene, unless otherwise directed to wait in another safe location or to evacuate to a Rally Point.

   All employees providing such assistance should be aware that they could be at risk of acquiring an infectious or communicable disease. They must take precautions when in contact with the victim's body fluids (blood, urine, secretions), and take protective measures during clean up and disposal of material used to treat the victim.

3. The CONTROL ROOM dispatches the First Responders to the scene.

4. The CONTROL ROOM shall call 911 and provide sufficient information for the appropriate resources to be sent to the site. The CONTROL ROOM shall monitor the facility gate to direct off-site resources to the location of the incident. If available, site personnel shall proceed to the gate to escort Off-site emergency responders to the scene.

5. Upon arrival at the scene, the First Responders should not rush into the situation. Instead, they should perform a hazard evaluation to determine the appropriate level of protection for medical and/or emergency responders. First Responders should not enter an area considered to contain hazards (potential or actual release) without first discussing with the Incident Commander. A typical hazard evaluation would include the following questions:

   - Has a release occurred that may require air monitoring for First Responders to identify concentrations of toxic gases or oxygen deficient atmospheres?
   - Is the injury a result of an exposure to some chemical, gas or fumes that may still be present?
   - Is the injury a result of a mechanical or electrical hazard? Is this hazard (e.g. live wires) still present?
   - Is the injury a result of a personal medical condition or other medical emergency, such as cardiac arrest?

6. Once the first responders (who are also trained in first aid and CPR) have properly evaluated the situation and the appropriate safety measures have been taken, the first responder will evaluate the victim's condition and treat and/or stabilize the injury/illness.

7. If the injury/illness is a result of a hazardous substance spill or exposure, the Responder(s) should implement ERP-05, Spill Procedures, to secure the area and make it safe for medical and rescue personnel. The area should be cordoned off, and areas should be designated for command staff, support, decontamination and hot zones. If necessary, the affected areas may be evacuated with the assistance of Plant Personnel.

8a. If the clean up of blood or body fluids is required, it shall be done by trained personnel only and the CONTROL ROOM shall notify the off-site hazardous waste contractor, if necessary.

8b. If a fatality or the hospitalization of three or more persons occurs, the CONTROL ROOM must notify the Emergency Coordinator (EC). The EC will coordinate the reporting of any fatality to OSHA within 8 hours of knowledge of the fatality. The EC will coordinate reporting of any hospitalization of three or more people within 30 days of the incident to OSHA within 8 hours of knowledge of the hospitalization.

9. The CONTROL ROOM or other responder to the scene shall complete an incident and deliver to EH&S and facility manager.

10. After the incident/emergency has been terminated, the Incident Commander shall conduct debriefing/critique of ERPs and document response actions.

PERSONNEL SPECIFIC DUTIES

(CONTROL ROOM)

- Call (external 911).
- Notify off-site hazardous waste coordinator when clean up of blood or body fluids is required.
- Serve as communications coordinator, log all communications.
- Notify additional resources as directed by Incident Commander.
- Notify Emergency Coordinator if fatality and/or hospitalization of three or more persons occurs.
- Notify First Responders.
- Serve as Incident Commander until relieved.

First Responders

- Perform hazard evaluation.
- Evaluate victim's condition and treat and/or stabilize the injury/illness.
- Assist Newington Fire or outside ambulance service, transition care.
- Assess the need for additional resources.
- Access the need for clean-up of blood borne pathogens. If trained to do so, initiate clean-up, if not trained to do so, contact off-site hazardous waste contractor.
- Complete initial incident report.

Newington Fire Department

- In the event that an emergency expands beyond the capability of plant personnel, Newington Fire Department or contract ambulance service personnel will perform any further required emergency medical care, as necessary.

Environmental Health and Safety

- First Responders patrol the area at a safe distance for additional safety and environmental hazards.
- Serve as Incident Commander, if necessary.
- Make regulatory notifications as directed by the Emergency Coordinator.
- Follow up on injury, complete incident reports, make internal notifications, implement corrective actions.

Off-Site Hazardous Waste Contractor

- Perform clean up of any blood and/or body fluids.

Emergency Coordinator

- Request CONTROL ROOM to notify Qualified Individual, if necessary.
- Serve as Incident Commander, if necessary.
- Direct regulatory notifications.

Incident Commander

- Activate Emergency Response Organization (ERO), if necessary.
- Coordinate Responders.
- Request CONTROL ROOM to make notifications for additional resources.
- Document response actions and conduct debriefing critique of ERP.

ERP-03 – EMERGENCY EVACUATION PROCEDURE

The objective of this Emergency Evacuation Procedure is to identify the appropriate actions to take to evacuate in a safe and orderly fashion from the scene of an incident that presents immediate danger to the health and safety of employees (i.e., threat of explosion, fire, vapor hazard). The map described in this procedure has been included in Figure 3 of the ICP.

1. If you detect a situation that may require evacuation, call the Control Room by calling the control room. All employees have been instructed to pull the fire alarm and call the control room (internal), if safe to do so, in any event that may require emergency evacuation.

2. If the incident presents an immediate danger, the CONTROL ROOM shall dispatch the First Responders to the scene, and the Control Room shall assign available staff to meet the incoming resources at the facility gate and direct them to the scene. The CONTROL ROOM then calls Newington Fire and provides sufficient information for the appropriate resources to be sent to the site.

3. The CONTROL ROOM shall call the EHS Responder.

4. The Responder(s) shall determine if hazards could affect evacuation routes and identify appropriate rally points. The Responder(s) must also evaluate the need for evacuation of downwind facility areas and off-site areas. Rally points are identified on evacuation route drawings posted in all buildings. Refer to the Town of Newington Community Evacuation Plan for off-site evacuation procedures (see attached).

5a. An emergency evacuation will be signaled with an audible “whoop” sound and visible “white” strobe alarm. All employees must react immediately. Additionally, there are voice prompts that must be adhered to. These voice prompts directs employees away from the hazards and towards a safe refugee.

5b. At the sound of an alarm, employees should secure all work and proceed in an orderly fashion (quickly and quietly; do not run) out the nearest safe exit as shown on the maps of recommended evacuation routes and as directed by voice prompts over the alarm system. Operators should ensure that all equipment is in safe condition prior to evacuation, if conditions allow. Muster areas (Rally Areas) are located outside of the gated area to the northeast, southeast, southwest, and northeast of the facility. Those areas have been identified on Figure 3

5c. Assist any handicapped personnel in the area.

5d. Leave the building and go to the primary rally point area as indicated on the map.

5e. Go to an alternate rally point if the pathway to the primary rally point is obstructed, the primary rally point is unsafe or you are instructed to go elsewhere by emergency personnel or by voice prompts through the alarm system.

5f. Stay in the rally point until a head count is completed by the designated headcounter for your work area.

5g. After the head count is completed, the Incident Commander will evaluate the need for personnel searches and/or rescues, and notify the Responder(s) if one is necessary.

5h. All personnel searches and/or rescues shall be conducted by Newington Fire Department.

5i. Personnel shall not re-enter the evacuated area until the "all clear" announcement/signal is made by the Incident Commander.

6. The EHS Responder will evaluate the incident (at a safe distance) for other potential safety or environmental hazards.

7. The Incident Commander shall request the CONTROL ROOM to notify the Emergency Coordinator (EC).

8. After the incident is isolated, the Responder(s) will meet to discuss if the incident is resolved and the emergency secured. If agreement is reached, the Incident Commander will make the "all clear" announcement.

9. After the incident/emergency has been terminated, the Incident Commander will conduct a debriefing/critique of the Emergency Evacuation ERP.

PERSONNEL SPECIFIC DUTIES

Control Room

- Serve as communications coordinator, log all communications.
- Notify additional resources as directed by the Incident Commander.
- Notify the Emergency Coordinator in cases of property damage, fire (beyond incipient), hospitalization required, and regulatory reporting required, as directed by the Incident Commander.
- Call Newington Fire if incident presents immediate danger.
- Notify the First Responders.
- Serve as Incident Commander until relieved.

First Responders

- Respond to all real and potential emergencies as directed by the CONTROL ROOM.
- Provide communications between rally point leaders and Incident Commander.
- Provide traffic and crowd control. Direct emergency vehicles.
- Assist in keeping people away from the evacuated area until the all clear signal is given by the Incident Commander.
- Assist with evacuation.
- Provide security.
- Perform hazard evaluation.
- Coordinate/assist with other Responders.
- Perform hazard evaluation.
- Report to the location of the emergency as reported by the CONTROL ROOM, or respond directly to the area of an alarm device.
- Conduct evacuation.
- Proceed to extinguish incipient stage fires.
- Assist in keeping people away from the evacuated area until the all clear signal is given by the GE Incident Commander.
- Indicate the "all-clear" for employee re-entry to the Incident Commander for incipient stage fires that have been extinguished and are <u>not</u> under the control of the Newington Fire Department.
- Coordinate with/assist other Responders.
- Serve as Incident Commander of the First Responder group.
- Provide assistance with utility shut off and control.
- Assign personnel to proceed to gate to direct Responders to scene.
- Assist in keeping people away from the evacuated area until the all clear signal is given by the GE Incident Commander.

- Arrange for conducting drills.
- Communicate with Control Room.
- Responsible for leading critique.
- Tour their common areas and check restrooms, conference rooms, and other general work areas. Notify occupants of the alarm and instruct them to evacuate.
- Alert contractors, visitors, and other transients of the meaning of the alarm (get out) and the location of the rally point.
- If a person refuses to exit, do not attempt to coerce the person. Notify Incident Commander of recalcitrant person at rally point.
- Check other potentially occupied areas within the scope of their pre-assigned areas including the roof, transformer rooms, confined spaces, etc.

Environmental Health and Safety

- EHS Responder and other EHS personnel patrol the area at a safe distance to identify additional safety and environmental hazards.
- Provide feedback to First Responders on necessity of further evacuation needs.
- Assist in keeping people away from the evacuated area until the all clear signal is given by the Incident Commander.

Emergency Coordinator

- Coordinate with other Responder(s).
- Make "all clear" announcement.

Newington Fire Department

- In the event that an emergency expands beyond the capability of plant personnel, the Newington Fire Department is the primary responding agency.
- The Newington Fire Department will perform any required search and rescue.
- Provide "all clear" announcement to GE Incident Commander when re-entry into evacuated areas is possible.

ANNEX H

EVACUATION

A. PURPOSE

The purpose of this Annex is to establish procedures for the orderly movement of people from endangered or stricken areas to facilities in areas generally unaffected by the disaster or potentially safer from an impending emergency situation.

B. AUTHORITIES

The authorities for this Annex are those as stated in Part I, Section B.

C. SITUATION

An organized evacuation of potentially endangered populations is one protective action and should be recommended only when other protective actions appear to be inadequate. An evacuation may be recommended when all or any part of the community is affected and may involve all or any portion of the population.

Areas in Town that might require an evacuation to be recommended would include:

Areas around a potentially explosive hazardous materials accident

Areas downwind of a hazardous chemical materials accident

Areas subject to outages of power, water or home heating materials

Structures which are or could become unsound due to fires, earthquakes, hurricanes, tornadoes and other major natural or technological phenomena

Areas threatened by advancing forest fires

Areas around or near crashed aircraft

By state law, RSA 107, the Governor of New Hampshire may only recommend evacuation as being in the best interest of the safety and welfare of the citizens. On-scene commanders and local officials may recommend evacuation in local emergency situations. Any evacuation, unless specifically recommended and assisted by federal, state or local government officials, does not bind that government to be liable for

damages incurred. It is assumed that the officials at all levels of government have fully assessed the risks involved before recommending an evacuation.

Although most adults in Newington own or have use of a private vehicle and would evacuate using that vehicle, the Town assisted by state government will provide school buses and available commercial vehicles to transport those who do not own or have use of a vehicle or who cannot ride with friends, relatives or neighbors. When faced with a potential life-threatening situation, people will generally follow three options:

Most will follow the recommendations of federal, state and/or local officials and relocate to pre-designated host areas by pre-selected routes.

Some will evacuate spontaneously to hosting facilities of their own choice.

Despite recommendations to do so, some will not evacuate and will remain in place.

The major evacuation routes for Newington will be:

Spaulding Turnpike/Woodbury Ave- North and South

Nimble Hill Road to McIntyre Road South

Industrial corridor Rd to Spaulding North and South

Spaulding Turnpike/Woodbury Avenue - North and South

Some buildings have established evacuation plans for fire safety which could be used in other types of emergencies.

It is assumed that most patients in medical facilities will be picked up and relocated by relatives. Relocation of patients in acute-care status and the transportation of same must, of necessity, be made at the time of the emergency and on a case-by-case basis. Prisoners being held by the Police Department who could not be released would be transferred for incarceration.

During a period of increasing international tension, the Presidential option of relocating people from potential target areas to relatively safer host areas appears to be feasible. Evacuees will necessarily look to their local officials for guidance on when and there to relocate, how to get there and what to bring with them.

D. ORGANIZATION

The organization of an evacuation will be directed from the EOC by the Executive and Operations Staffs, assisted by appropriate state and federal agencies

E. RESPONSIBILITIES

The Board of Selectmen will

Assume over-all direction and control of the evacuation procedures

Make the necessary evaluations and recommendations to protect the lives of the citizens

The Emergency Management Director will

Coordinate the emergency services during the population movement

Assist essential public services and private industries to provide for continuity of operations

Assist non-essential industries to provide for operational shut-down and the orderly release of employees

The Police Department will

Coordinate traffic control

Provide post-evacuation security

Coordinate emergency transportation

Issue identification for emergency services

The Highway Department will

Provide barricades for traffic control

Assist in emergency transportation

Assist in manning control points

Provide for clearance of evacuation routes and shelters

The Fire Department will

Provide recommendations on areas to be evacuated due to hazardous materials accidents

Assist in traffic control

Provide post-evacuation fire surveillance

Assist in rescue operations

The Health Officer will

Coordinate evacuation procedures for medical facilities with the Rescue Service

Coordinate post-evacuation medical care

Obtain data and recommendations for situations involving radioactivity from the New Hampshire Division of Public Health

F. CONCEPT OF OPERATIONS

The emergency situation - i.e. floods, hurricanes, conflagration, hazardous materials accident - will generally dictate the perimeters of an area to be evacuated and the time, distance and direction to evacuate.

Once the decision to recommend evacuation has been made, the following procedures will be accomplished:

The Board of Selectmen will:

Inaugurate the public warning procedures

Determine the approximate numbers of people involved

Notify the Portsmouth Chapter of the Red Cross to begin sheltering procedures

Notify State Emergency Management and request state and/or federal assistance

Disseminate information and instructions to the public through the local media

Instruct emergency services chiefs to implement their evacuation procedures

Make those expedient decision necessary to protect the lives and property of the citizens

The Emergency Management Director will:

Coordinate the community efforts and any outside assistance that is available

Advise the Board of Selectmen on the current status of events and make emergency management recommendations

Maintain contact with the media and prepare news briefings for the Board of Selectmen to disseminate

Perform such other functions as directed by the Board of Selectmen

The Police Department will

Continue on-going disaster operations

Determine traffic routes for evacuees to reach shelter

Establish and maintain control points to maximize traffic flow

Organize patrols to provide security in the evacuated area

Maintain emergency communications capability

Arrange transportation to shelters through the school bus coordinator for those who need it and establish pick-up points for said transportation

Distribute personnel and vehicle identification to key workers and emergency services personnel

The Fire Department will:

Maintain on-going disaster operations

Provide personnel to assist the Police Department in maintaining traffic control points, if possible

Identify those handicapped persons needing assistance to relocate

The Rescue Service will:

Maintain on-going disaster operations

Provide emergency medical treatment and evacuate the injured

Provide assistance for handicapped persons to relocate

Coordinate the evacuation of health facilities with the Health Officer

The Road Agent will:

Maintain on-going disaster operations

Provide barricades, cones and/or other devices to the traffic control points designated by the Police Department

Assist in maintaining traffic control points, if possible

Keep the evacuation routes open

Clear parking areas at the shelters, if necessary

Request assistance from local contractors for personnel and equipment, if necessary

The School Department will:

Provide for the orderly shutdown of classes

Release or hold the students, as the situation warrants

The Health Officer will:

Recommend to the Board of Selectmen those buildings suitable and available for sheltering evacuees

Coordinate the shelter operation with the Red Cross

Coordinate the health and medical evacuation procedures with the Rescue Service, local physicians and nurses, area hospitals and the State Division of Public Health

Establish procedures to prevent the spread of infectious diseases among evacuees

Assist the Rescue Service in establishing procedures with the Portsmouth Regional Hospital for the transfer of patients

Provide medical treatment capabilities for those people who cannot or will not evacuate

ERP-04– FIRE AND/OR EXPLOSION PROCEDURE

The objective of this Emergency Response Procedure is to identify the appropriate actions to take in the event of a fire or explosion at the NEL facility.

1. If you observe a fire and/or explosion at the NEL facility, call the Control Room by dialing the control room or pull the nearest fire alarm. Give specific directions to the area affected by the fire or explosion. Provide the CONTROL ROOM with sufficient information to determine what response actions and resources are necessary.

2a. If a fire or explosion is ongoing, the CONTROL ROOM shall immediately call external 911 (Newington Fire) and provide the dispatcher with the following information, if possible: location of fire, number of buildings involved, time fire started or explosion occurred, number of employees working in the affected building(s), what chemicals may be burning or stored in the building(s), and any other pertinent information.

2b. The CONTROL ROOM shall then notify and direct the First Responders to the scene. Depending on the severity of the fire or explosion, the Responder(s) should wait at a safe distance to direct other responders or implement evacuation of the area, if necessary.

2c. The CONTROL ROOM shall monitor the gates to direct any emergency vehicles to the scene. If possible, a plant employee will be at the gates and shall provide Newington Fire with the pre-incident planning form information for the building(s) where the fire/explosion is occurring. The Incident Commander will assign personnel to proceed to the gate to escort responders to the scene.

3a. The first responders shall evaluate the fire/explosion to determine:

- Location
- Material burning
- Potential spread/exposures
- Fire protection systems activated
- Employee evacuation on-going or required
- Other potential safety/environmental hazards.

The evaluation information can be relayed by the First Resonders either upon the Newington Fire Department arrival on-scene or through direct radio communication with incoming Newington Fire apparatus.

3b. If Responder(s) determine that the fire is already extinguished or will be extinguished immediately using on-site resources (incipient stage fires only), the Incident Commander can cancel Newington Fire prior to its arrival.

3c. If the potential for encounter with smoke or an Immediate Dangerous to Life and Health (IDLH) atmosphere exists, prior to entry, the First Responders and plant personnel may don self contained breathing aparatus (SCBA). SCBA shall only be worn by personnel trained and medically cleared for its use. Upon encountering smoke or a potential IDLH environment, First Responders and plant personnel shall immediately activate their SCBA unit and exit the area. The First Responders and plant personnel shall not use SCBA for any fire fighting or search and rescue purposes, but rather solely for respiratory protection during egress. In addition, the First Responders shall not enter a building where an existing IDLH atmosphere is present except within the provisions of paragraph 6, below. All fire fighting beyond the incipient stage, and all personnel search and rescue shall be performed by the Newington Fire Department.

4. Responder(s) shall ensure that any affected electrical systems are shut down along with any affected operations, if it is safe to do so.

5. The CONTROL ROOM will notify the First Responder and the Emergency Coordinator (EC), of the arrival of the Newington Fire Department. The First Responder and/or EC will report to the scene, if necessary, and coordinate with the Newington Fire Department in establishing an on-scene mobile command post to direct fire or explosion responders, and activate the Emergency Operations Center (EOC). They will direct individuals to assemble at the command post or EOC to help coordinate response efforts, verify that the appropriate fire or explosion response personnel have responded to the incident, and call the CONTROL ROOM to obtain additional back-up, if necessary.

6. All First Responders will assist the Newington Fire Department as necessary and as directed (if the activities can be conducted in a safe manner) by the Incident Commander

    - Connections to water sources.
    - Identification of materials involved.
    - Use of proper personal protective clothing.
    - Identification and manning of fixed fire suppression equipment for manual operation.
    - Isolation of electrical systems.

7. Responders will identify any hazardous substances that may have been involved in the fire or explosion. MSDS may be obtained from the electronic database, or if necessary and safely obtainable, hard copies in the control room respectively). Responders shall also refer to the U.S. Department of Transportation Guidebook for First Response to Hazardous Materials Incidents for Emergency Actions for Small and Large Fires. The Responder(s) shall implement ERP-05, as needed, to address a spill of oil or hazardous material associated with the fire or to initiate cleanup activities.

8. The Responder(s) will evaluate the need for medical services, perform rescue operations and evacuate nearby buildings. Refer to ERP-02 for medical procedures and ERP-03 for evacuation procedures.

9. The Incident Commander will assess actions needed to mitigate on-site and off-site impacts and environmental impacts.

10. The Incident Commander will determine when the emergency is over and provide the "all clear" announcement.

11. After the emergency has been terminated, the Incident Commander shall coordinate a debriefing and emergency documentation. Other activities to be considered/conducted following termination of the incident shall include:

    - Briefing Public Relations so that all questions can be directed to them.
    - Fire Inspectors will replace sprinkler heads, reopen control valves and replace/refill discharged fire extinguishers.
    - Forming a team to clean up the property to get the affected area back in operation.
    - Conducting a debriefing/critique of the Fire/Explosion ERP.
    - Conducting an incident investigation

PERSONNEL SPECIFIC DUTIES

Control Room

- Serve as Incident Commander until relieved.
- Serve as communications coordinator, log all communications.
- Notify additional resources as directed by the Incident Commander.
- Call Newington Fire Department if incident presents immediate danger.
- Notify First Responders.
- Notify EHS Responder when off-site resources are notified.
- Notify Emergency Coordinator.

First Responders

- Respond to all real and potential emergencies as directed by the CONTROL ROOM.
- Provide traffic and crowd control. Direct emergency vehicles.
- Provide security.
- Assist with evacuation.
- Perform hazard evaluation.
- Coordinate/assist with other Responders.
- Report to the location of the emergency as reported by the CONTROL ROOM, or respond directly to the area of an alarm device.
- Evaluate fire/explosion. If smoke or potential IDLH, evacuate immediately.
- Conduct evacuation, if necessary.
- Perform hazard evaluation.
    - Proceed to extinguish incipient stage fires.
    - Coordinate with/assist other Responders.
    - Indicate the "all-clear" for employee re-entry to the Incident Commander for incipient stage fires that have been extinguished and are not under the control of the Newington Fire Department.

- Respond to the scene.
- Coordinate with/assist other Responders.
- Serve as the Incident Commander of First Responders.
- Provide assistance with utility shut off and control.
- Assign personnel to proceed to gate to direct Responders to scene.

Environmental Health and Safety

- EHS Responder and other EHS personnel patrol the area at a safe distance for additional safety and environmental hazards.
- Serve as the Incident Commander, if necessary.
- Make regulatory notifications as directed by the Emergency Coordinator.

Newington Fire Department

- The Newington Fire Department is the primary responding agency to incidents of fire or explosion, with exception of incipient fires extinguished by Plant Personnel.
- Perform any required search and rescue.
- Provide "all clear" announcement to the Incident Commander when re-entry into evacuated areas is possible.

Emergency Coordinator

- Activate Emergency Response Organization (ERO), if necessary.
- Serve as the Incident Commander, if necessary.
- Request CONTROL ROOM to notify Qualified Individual, if necessary.
- Direct regulatory notifications.

Incident Commander

- Coordinate Responders.
- Request CONTROL ROOM to make notifications for additional resources.
- Make the "all clear" announcement.
- Document response actions and conduct debriefing critique of ERP.

ERP-05 SPILL/RELEASE PROCEDURE

Significant spillage of certain types of materials that are at the NEL facility may need to be reported to agencies such as New Hampshire Department of Environmental Services (NH Des) , Environmental Protection Agency (EPA), U.S. Coast Guard, etc. Substantial fines can result from improper or unauthorized handling of spills, as well as from not reporting them to the proper agencies.

The objective of this Emergency Response Procedure is to identify the appropriate actions to take when a spill or release of oil, hazardous materials or other potentially harmful substances (i.e., sanitary waste, blood, etc.) occurs at the NEL facility. The intent is to minimize the health, safety and environmental impacts from a discharge of oil or hazardous material from the facility and to prevent discharge(s) from leaving the site, especially to the storm drains and the Piscataqua River or sewers at the facility. Response activities will be completed only when it is determined to be safe to do so.

A spill is defined as a release of a material from outside its normal container. Spilled materials can be liquid, solid, or gas in nature. Because fires also release chemicals (smoke, fumes, etc.), they fall into the definition of a spill and therefore, also need to be reported internally. Releases into spill containment areas (dikes, separators, etc.) are still considered spills, must be reported internally, and may need to be reported to governmental agencies depending upon the type and quantity of material released.

1. If you detect a spill at the facility:
    - Immediately call the Control Room. Provide information regarding the nature and extent of the spill so that the Control Room can initiate appropriate response activities. This information shall include:
        - Type of chemical spilled;
        - Location of the spill;
        - Approximate volume of the spill;
        - Number of injured employees; and
        - If possible, a copy of the MSDS for the spilled chemical.

- Determine if the spill is **significant** by comparing the estimated amount and type of material spilled with the significant spill quantity information found in table 1 below. If the material spilled is not listed in here, assume that the incident is a significant spill.
- If the spill is **not significant**, operations must clean up the spill immediately. For non-significant spill clean up procedures, refer to the MSDS or contact the EHS Coordinator. Notify your supervisor and/or Plant EHS Coordinator following clean up.

Table 1
Significant Spill Quantities, in Gallons and Location Spilled

Material	Into Sanitary Sewer or Floor Drains in Buildings	Into Storm Sewer or Piscataqua River	Onto Building Floor (where no floor drains are present)	Anywhere Outside (including diked areas)
Acids (except chromic)	any	any	5	5
Asbestos	any	any	any	any
Blood or other Body Fluids	any	any	any	any
Caustics	any	any	5	5
Hazardous Waste	any	any	any	any
Mercury	any	any	any	any
Non-Hazardous Liquid and Sludge Waste	any	any	any	any
Oils and Fuels	any	any	25	25
Sodium Hypochlorite	any	any	any	any
PCBs	any	any	any	any
Solvents	any	any	1	1
Spill of unknown materials, fires, or materials that are not listed must be called in to the CONTROL ROOM.				

2. If you detect a spill that is in progress, initiate actions to stop or control the spill, <u>if it is safe to do so</u> and you are adequately trained and authorized to do so. Your supervisor should be informed of the spill as soon as conditions permit.

3. Based on the information provided, the CONTROL ROOM will notify the First Responders and direct them to the scene. The CONTROL ROOM may also notify additional response personnel, including the emergency coordinator (for significant spills), Newington Fire (in case of fire/explosion, the waste contractor, and/or off-site resources (such as the Oil Spill Response Organization [OSRO]) as directed by the Incident Commander.

4a. Upon arrival at the scene, the Responder(s) shall assess the spill event and secure access to the affected area. Depending on the type or quantity spilled, the product may be toxic if ingested, or it may be a skin or eye irritant. Product vapor may be an eye or respiratory irritant, and may produce headaches or nausea if concentrated. Vapors may be flammable or explosive. Material Safety Data Sheets for each product (available from the electronic database or in hardcopy format in control room and will give specific information on these matters.

4b. The Responder(s) will determine if any injuries are involved, and if so, will implement or direct someone else to implement ERP-02, Medical Emergency Procedure.

4c. The Responder(s) will determine if evacuation is necessary, and if so, will implement or direct someone to implement ERP-03, Evacuation Procedure.

4d. The Responder(s) will determine if a fire/explosion hazard exists, and if so, will implement or direct someone to implement ERP-04, Fire/Explosion.

5. The Responder(s) should cordon off and secure the spill area, at a safe distance and should arrange to have any potentially affected storm drains/manholes covered immediately and secure any affected operating equipment and possible ignition sources or other hazards.

6. The Incident Commander should designate support, decontamination and hot zones as necessary.

7. If the release has impacted or may potentially impact the Piscataqua River, the Responder(s), under the direction of the Incident Commander, should secure access to the affected area, which may include:

    - request the CONTROL ROOM to notify the EHS Responder;
    - closing the Piscataqua River to all traffic by notifying the Harbor Master/US Coast Guard;
    - securing road and/or rail traffic on bridges across affected portions of the river for spills of fuel;
    - securing necessary electrical power and other ignition sources to the plant water front areas; and
    - securing skimmers and/or booms near plant water suctions and discharges on or near affected portions of the river.

8. **SPILL RESPONSE PROCEDURES FOR SPECIFIC SPILL SCENARIOS**

Under supervision or direction of the Incident Commander, employees shall respond in accordance with their training and abilities to the following spill/release scenarios.

Transfer Equipment Failure. In the event of transfer equipment failure, not necessarily resulting in a spill, the following procedures shall be executed:

- Secure operations with the affected equipment.
- Isolate the transfer equipment from the rest of the system.
- Place containers and sorbent materials to effectively contain spilled product.
- Attempt to prevent product from entering storm drains.
- Determine the cause of failure if possible.
- Notify appropriate facility personnel.

Tank Overfill. Fuel oil storage tanks are located inside secondary containment In the event of a tank overfill the following procedures shall be executed:

- Secure transfer operations.
- Secure vent valve.
- Place containers and sorbent materials to effectively contain and recover spilled product.
- Place recovered product into waste storage tank.
- Notify appropriate facility personnel.
- Notify the EHS Responder & Qualified Individual.

Tank Failure. A catastrophic tank failure may require the assistance of external resources immediately. Although fuel oil storage tanks are protected within secondary containment, considerable splash over may result in a release of product into the adjacent waterway or storm drains. Additionally, a potential may exist for a major fire and/or explosion. Because of the gravity of the situation the following procedures need to be implemented immediately:

- Secure all fueling operations.
- Secure all valves outside the containment area. DO NOT ENTER THE CONTAINMENT AREA.
- Notify appropriate facility maintenance personnel.
- Keep all unnecessary personnel out of the immediate area.
- Notify the EHS Responder & Qualified Individual.
- Notify off-site response contractor

Piping Rupture. In the event of a piping rupture the following procedures shall be executed:

- Secure all transfer operations on the affected system.

- Isolate the affected section of pipe by closing valves on both sides of the line.
- Place containers and sorbent materials to effectively contain and recover spilled product.
- Place containment boom around affected area.
- Attempt to prevent product from entering storm drains.
- Notify appropriate facility maintenance personnel.
- Notify the EHS Responder & Qualified Individual

Piping Leak. In the event of a piping leak the following procedures shall be executed:

- Secure transfer operations on the affected system.
- Place containers and sorbent materials to effectively contain and recover spilled product.
- Attempt to prevent product from entering storm drains.
- Notify appropriate facility maintenance personnel.
- Notify the EHS Responder & Qualified Individual.

Explosion and/or Fire. In the event of explosion or fire the following procedures shall be executed:

- Secure all fueling operations.
- Secure all valves that are accessible. DO NOT ENTER THE BURNING AREA.
- Notify appropriate facility personnel.
- Evacuate all personnel from the immediate area.

Pump Failure. In the event of a pump failure result in a release, the following procedures shall be executed:

- Secure fuel transfer operations on the affected system.
- Isolate the pump from the storage tank.
- Drain the product from the pump and discharge line into an approved container.
- Place sorbent materials around the pump in preparation for removal by facility maintenance personnel.
- Attempt to prevent product from entering storm drains.
- Place blank flanges or caps on the exposed pipe ends after pump removal.

Relief Valve Failure. In the event of a relief valve failure the following procedures shall be executed:

- Secure the pump.

- Isolate the relief valve from the system by closing valves on either side of the affected component, if possible.
- If the affected system has a bypass feature, align the system for bypass and
- drain the affected piping into a suitable container.
- Place sorbent material strategically around potential leak areas to contain escaping product.
- Notify appropriate facility personnel.

9. If a potential Reportable Quantity (RQ) has been released, the Incident Commander will request the CONTROL ROOM to notify the EHS Coordinator to assist in the evaluation of the spill/release to determine whether the release potentially triggers any reporting criteria.

10. If the spill/ release involves/results in property damage, fire (beyond incipient stage), hospitalization, and/or regulatory reporting requirements (i.e., all releases to the Piscataqua River and other specific volumes of certain materials to the environment) and/or additional off-site resources are required to contain/remediate the spill/release, the Incident Commander shall request the CONTROL ROOM to notify the Emergency Coordinator.

11. Following the completion of spill response activities, the Incident Commander should contact the EH&S Coordinator to arrange for the storage and disposal of waste generated during spill response. Types of solid materials that may need to be disposed of include sorbent pads, protective clothing, and soil impacted by the release. Liquids would include water, oil, and chemicals recovered as part of the spill response activity, as well as fluids used for decontamination processes.

    GEPS's existing waste management program can be used to appropriately handle most of the materials generated during spill response. Soils that are excavated must be transported to a secure location at the designated soil stockpile area, where they must be segregated, placed on plastic sheeting, covered, and labeled pending characterization and disposal. Other solid waste, slurry, sediment, and liquid waste must be containerized in drums or tanks and labeled with sufficient information to enable subsequent tracking and disposal. The EHS department must be notified of the quantities, nature, and date of generation of all waste products, and is responsible for arranging for classification and recycling, re-use, or disposal in accordance with State and Federal regulations and existing facility permits.

12. After the spill/release incident has been stabilized or remediated, the Incident Commander shall conduct a debriefing/critique of the spill/release ERP.

PERSONNEL SPECIFIC DUTIES

Control Room

- Incident Commander until relieved.
- Serve as communications coordinator, log all commmunications.
- Notify additional resources as directed by the Incident Commander.
- Notify First Responders & Qualified Individual.
- Notify Emergency Coordinator in cases of property damage, fire (beyond incipient), hospitalization required, and regulatory reporting required, as directed by the Incident commander.

First Responders

- Report to the location of the emergency as reported by the CONTROL ROOM, or respond directly to the area of an alarm device.
- Conduct evacuation, if necessary.
- Proceed to extinguish incipient stage fires.
- Coordinate/assist other Responders.
- Indicate the "all-clear" for employee re-entry to the Incident Commander for incipient stage fires that have been extinguished and are not under the control of the Newington Fire Department.
- Perform hazard evaluation.
- Assist other Responders in conducting defensive spill response measures.

Environmental Health and Safety

- Designate support, decontamination and hot zones.
- Direct responses to significant spills.
- Determine if release triggers any reporting criteria.
- Serve as the Incident Commander/Qualified Individual, if necessary.
- Conduct any regulatory notifications as directed by the Emergency Coordinator.
- EHS Responder and other EHS personnel patrol the area at a safe distance for additional safety and environmental hazards.
- Direct storage and disposal of waste generated during spill response activities.

Newington Fire Department

- In the event that an emergency expands beyond the capability of plant personnel, the Newington Fire Department is the primary responding agency.
- Newington Fire will perform any required search and rescue.
- Provide "all clear" announcement to the GE Incident Commander when re-entry into evacuated areas is possible.

Emergency Coordinator

- Designate support, decontamination and hot zones.
- Direct responses to significant spills, as appropriate.
- Serve as the Incident Commander, if necessary.
- Direct or make regulatory notifications.

Incident Commander

- Coordinate Responders.
- Request CONTROL ROOM to make notifications for additional resources.
- Document response actions and conduct debriefing/critique of ERP.
- Provide the "all clear" announcement.

ERP-06 – SECURITY DISTURBANCE, BOMB THREAT PROCEDURE and, SUSPICIOUS MAIL/PACKAGES

The objective of this Emergency Response Procedure is to identify the appropriate actions to take in the event of a security disturbance, bomb threat or suspicious mail/packages.

1a. If you receive a bomb threat, remain calm and courteous. Listen to the caller; do not interrupt the caller. Note the exact message stated by the caller. Note the exact time and date the call was received.

1b. Complete the attached Bomb Threat- Operator Checklist (attached below)

2. Suspicious mail and or package instructions (see attached below)

3. For all security disturbances, bomb threats, and suspicious mail/packages:

3a. Notify the Control Room.

3b. The CONTROL ROOM will contact the Facility Manager and the Emergency Coordinator (EC). The CONTROL ROOM will also notify the First Responders.

3c. The EH&S Manager will determine if the threat is perceived as genuine and a possible actual threat exists. The EH&S Manager will contact local and state police and the state police bomb squad, if necessary.

3d. The Incident Commander will activate ERP-03, Emergency Evacuation Procedure, if necessary.

3e. The EC will request the CONTROL ROOM to notify the Qualified Individual (QI), who will contact the Facility Manager and if necessary the customer's representative.

3f. Newington Police will address any security disturbance with assistance from outside resources, if necessary. First Responders will provide assistance to outside resources conducting bomb searches, but shall <u>not</u> directly participate in the search.

3g. The Incident Commander will give an “all clear”; based on input from the Newington Police, Newington Fire, and any other outside agencies responding to the incident.

3h. After the incident is determined to be over, the Incident Commander shall conduct a debriefing/critique of the ERPs.

Bomb Threat- Operator Checklist

CALLER CHARACTERISTICS

CALLER'S VOICE SPEECH

Male: _____ Female: _____

Approx Age: _____ Ethnic Group: _____

MOOD OF CALLER / RATE OF

Calm: _____ Slow: _____

Angry: _____ Normal: _____

Excited: _____ Rapid: _____

VOICE CHARACTERISTICS

Accent: _____ Drunk: _____

Lisp: _____ Other: _____

LOUDNESS OF VOICE / ATTITUDE

Soft: _____ Sincere: _____

Normal: _____ Disguised: _____

Loud: _____ Familiar: _____

BACKGROUND NOISES

Street Sounds: _____ Rail Sounds: _____ Plane Sounds: _____ Home Sounds: _____

Bar Sounds: _____ Music: _____ Machines: _____ Bedlam: _____

QUESTIONS TO ASK

1. WHEN WILL THE BOMB EXPLODE ? _____
2. WHERE IS THE BOMB ? _____
3. WHAT DOES IT LOOK LIKE ? _____
4. WHAT KIND OF BOMB IS IT ? _____
5. WHAT WILL CAUSE IT TO EXPLODE ? _____
6. WHY DID YOU PLACE THE BOMB ? _____
7. WHAT IS YOUR NAME ? _____
8. WHAT IS YOUR ADDRESS ? _____

CALL RECORD

Exact language used:_____

Exact time of call: _____ Date of call: _____ Number called: _____

Call received by: _____ Location: _____

Action taken: _____

Handling of Suspicious Mail

All personnel who handle mail have a responsibility to consistently follow the established safety procedures. One of these procedures is to maintain caution and follow directives when dealing with suspicious mail in terms of explosives and biochemical threats. The goal of this procedure is to provide the steps that you must follow in order to protect yourself and all other personnel in the facility. We must be ready to act in the event any of us come across a piece of suspicious mail. **Be aware that explosive or biohazard material can be enclosed in either a package or an envelope.**

What makes a piece of mail or parcel suspicious?

- Has protruding wires, strange odors or stains
- Lopsided, oddly shaped
- Has an unusual weight, given its size
- Shows a city or state in the postmark that doesn't match the return address
- No return address or an addressed that cannot be verified
- Addressed to someone no longer at your location or is outdated in any way
- Marked with restrictive statements, such as "Personal" or "Confidential"
- Mail may have distorted handwriting or the name and address may be prepared with homemade labels or cut and pasted lettering
- Mail bombs may have excessive postage. Letter bombs may feel rigid or appear uneven or lopsided
- Package may be unprofessionally wrapped, several combinations of tape used to secure the package
- Package may be endorsed " Fragile - Handle With Care" or "Rush - Do Not Delay"
- Package bombs may make a sloshing sound, but generally do not tick or buzz

THE MAILROOM WILL NOT DELIVER ANY MAIL AND/OR PACKAGE IF DETERMINED SUSPICIOUS

Use of Gloves for Handling of Mail

As a general rule, gloves are not required to handle mail. However, if a person desires to use gloves it is recommended that N-dex nitrile type (not latex) gloves be used since these are less likely to cause an allergic reaction. Employees are recommended to use gloves if he/she has open cuts or sores until these injuries heal. Mailrooms are expected to maintain a supply of gloves for employee use.

Employees who wear gloves to handle and deliver mail are to discard the gloves by traditional means (garbage) upon completion of a shift or a work period. For instance, if an employee handles mail in the morning and leaves the work area for lunch, the gloves would be discarded and a new pair would be made available to the employee for the afternoon work period.

Plastic sealing or Zip Lock bags will be available in each site for containment of any suspicious substances.

What should I do if I receive a suspicious package in the mail?

- **Do not try to open the package or envelope**.
- Isolate the parcel or letter, place it is a plastic bag or other container, and do not move it further.
- Evacuate the immediate area.
- Wash hands with soap and warm water

- Make a list of all the people who had contact with the package or envelope, include contact information, and provide the list to the emergency responders.
- **Emergency response personnel will take the parcel away, assess the situation and coordinate**

with officials, **and report back to you with information.**

- Contact the following personnel immediately:
  - Site manager, site EHS coordinator, and site medical personnel (if present)
  - PS HQ Security, EHS, Medical and Facilities, as applicable
  - Local police

What should I do if I am exposed to a substance that I suspect may be a dangerous substance?

- DO NOT try to CLEAN UP the powder. COVER the spilled contents immediately with anything (e.g., clothing, paper, trash can, etc.) and do not remove this cover!
- Then LEAVE the room and CLOSE the door, or section off the area to prevent others from entering (i.e., keep others away).
- Report the incident to your supervisor immediately who should notify the above PS personnel, building security and police.
- Ensure everyone who had contact with the piece of mail washes his or her hands with soap and water.
- Make a list of all the people who had contact with the package or envelope, include contact information, and provide the list to the emergency responders.
- Place all items worn in contact with the suspicious mail in plastic bags or other container and present them to emergency response personnel.
- **Emergency response personnel will take the parcel away, assess the situation and coordinate with officials, and report back to you with information.**
- SHOWER with **soap and water** as soon as possible.

The Supervisor or Site Manager is to ensure that the following take place:

- Notify PS security, EHS, Medical and Facilities.
- Notify the local police and the Postal Inspector at (800) 654-8896.
- Notify local, county, and state health departments.
- Ensure that all persons who have touched the letter wash their hands with soap and water.
- List all persons who have touched the letter and/or envelope. Include contact information. Provide the list to the emergency responders.
- Place all items worn when in contact with the suspected mail piece in plastic bags and keep them wherever you change your clothes and have them available for law enforcement agents.
- If prescribed medication by medical personnel, take it until otherwise instructed or it runs out.

POSSIBLE ROOM CONTAMINATION BY AEROSOLIZATION:

1. Turn off local fans or ventilation units in the area.
2. LEAVE area immediately.
3. CLOSE the door, or section off the area to prevent others from entering (i.e., keep others away).
4. Report the incident to your supervisor immediately who should notify the police & building security
5. SHUT down air handling system in the building, if possible.
6. List all people who were in the room or area. Give this list to both the local public health authorities so that proper instructions can be given for medical follow-up and to law enforcement officials for further investigation.

Suspicious Package/Letter/Materials Emergency Procedures

Suspicious package characteristics	
~Large envelopes with excessive postage (too many stamps). ~Fictitious or no return address.	~ Packages or letters containing fine materials (talc consistency), powdery materials, granules, containers with unknown liquids
~An unexpected piece of mail, or one from an unknown sender.	~ Oil stains on the package.
~ Packages that make a sloshing, buzzing or ticking sounds	~ Protruding wires, foil or string.
~ Postmarks that differ from the return address.	~ Packages with combinations of tapes to secure them.
~Bulk and weight of package greater than normal air mail (2 ounces or more).	

Step	Task	Complete
1	Notification received of a Suspicious Package/Materials Notifier Name:_____ Location Received: _____ Notifier Phone: _____ Comments: _____	☐
2	Dispatch Security Officer and on-duty Response Team to the site.	☐
3	The following personnel will be notified by direction of the on-duty Response Coordinator: ***TBD by Facility Manager.***	☐
4	Ensure responding personnel do not touch or move the suspicious package or object. (see below exception)	☐
5	Have the Security Officer/on-duty Response Coordinator ask individuals in the area if the package belongs to them or if they put it there. Have them contact any individuals responsible for that area and ask if they possibly placed the suspicious package there. If an individual claims, and can identify the suspicious package, then there is no need to proceed.	☐
6	If it is determined that the package is not the property of anyone and unable to verify the contents remove all persons at risk.	☐
7	The Response Coordinator will contact the Security Department with the following information: a. What the package looks like?_____ b. Where the package is located?_____ c. What time it was discovered?_____ d. Who discovered the package? _____ e. Any other useful information_____ *Note: If determined there is a possibility of a "Biohazard Threat," refer to Attachment 1.*	☐
8	The on-duty Response Coordinator will make the appropriate notifications and, on a case-by-case basis, determine the next steps and back-brief as required. If necessary, the Response Coordinator will request advice and assistance from Headquarters Security and/or Corporate Security Management.	☐
9	If required, and as directed, notify local authorities.	☐
10	Upon completion of the incident, ensure all back-brief notifications are accomplished and an Incident Report completed. http://ehsweb.sch.ge.com/ehs/security/incidentreport.cfm	☐

The determination to evacuate is the GEPS Security Director's discretion. During evacuation, the on-duty Team Leader/Lead Officer will ensure all personnel are moved to at least 200 yards away from the suspected device.

PERSONNEL SPECIFIC DUTIES

Control Room

- Incident Commander until retrieved.
- Serve as communications coordinator, log all communication.
- Notify Security Manager and Emergency Coordinator.
- Notify additional resources as directed by the Incident Commander.
- Notify First Responders.

First Responders

- Respond to all real and potential emergencies as directed by the CONTROL ROOM.
- Provide traffic and crowd control. Direct emergency vehicles.
- Address security disturbances.
- Provide assistance to outside resources conducting bomb search, but shall not participate directly in bomb search.
- Coordinate with/assist other Responders.
- Perform hazard evaluation.
- Report to the location of the emergency as reported by the CONTROL ROOM, or respond directly to the area of an alarm device.
- Assess the need for evacuation.
- Provide assistance to outside resources conducting bomb search, but shall not participate directly in bomb search.
- Perform hazard evaluation.
- Coordinate with/assist other responders.
- Provide assistance to outside resources.
- Respond to scene as directed by CONTROL ROOM.
- Coordinate with/assist other Responders.
- Provide assistance to outside resources conducting bomb search, but shall not participate directly in bomb search.
- Serve as Incident Commander of First Responders.
- Provide assistance with utility shut off and control.
- Assign personnel to proceed to gate to direct responders to scene.

EH&S Manager

- Determine if threat is genuine.

- Coordinate with/assist Incident Commander.
- Contact local and state police and state police bomb squad, if necessary.

Emergency Coordinator

- Request CONTROL ROOM to notify Qualified Individual.
- Serve as Incident Commander, if necessary.
- Provide feedback on necessity of further evacuation needs.

Qualified Individual

- Notify the customer and other company officials.

Newington Fire Department

- In the event that an emergency expands beyond the capability of plant personnel, the Newington Fire Department is the primary responding agency.
- Provide “all clear” announcement to the GE Incident Commander when re-entry into evacuated areas is possible.
- Notifies additional resources (i.e., State Police) through Mutual Aid.

Incident Commander

- Coordinate Responders.
- Request CONTROL ROOM to make notifications for additional resources.
- Document response actions and conduct debriefing/critique of ERP.
- Provide the “all clear” signal.

ERP - 07 UTILITY FAILURE PROCEDURE

The objective of this Emergency Response Procedure is to identify the appropriate actions when a failure of a utility system occurs at the NEL facility. This failure of the utility can be anything from a major power outage to a leak in the steam, natural gas, transformer, compressed air, water and sewer systems or an isolated power outage that just affects a certain area of the facility or process line. The intent is to minimize the health, safety, and environmental impacts as a result of the loss of these critical utilities that may result in injury to any employees or cause the discharge of a hazardous material.

1. If you detect a failure or loss of a utility service at the facility, immediately call the Control Room. Provide information regarding the nature and extent of the utility failure so that the CONTROL ROOM can initiate appropriate activities by the response team.

2. The CONTROL ROOM will contact the First Responders and direct them to the scene.

3. If you detect a leak in a utility system and the leak is small and not creating a hazard, begin response actions (such as, secure and contain or clean up) if it is safe and you are adequately trained and are authorized to do so.

4. If you detect a leak or outage that is in progress, initiate actions to stop the leak and restore the outage, if it is safe to do so and you are adequately trained and authorized to do so. Your supervisor should be informed of the incident as soon as conditions allow.

5a. Upon arrival at the scene, the First Responders shall assess the event and secure access to the affected area. Depending on the type of outage or leak, the First Responders will determine if any injuries are involved and if so will implement or direct ERP-02, Medical Procedure. If the outage or leak has resulted in the release of hazardous material, implement ERP-05, Spill Release Procedure. An MSDS for each product is available electronically in certain plant areas and in hard copy at the EHS Department located in Building 64.

5b. The First Responders will also determine if evacuation is necessary and if so will implement or direct someone to implement ERP-03, Evacuation Procedure.

5c. The First Responders will determine if a fire/explosion hazard exists and if so will implement or direct someone to implement ERP-04, Fire/Explosion Procedures.

6. The Incident Commander shall request the CONTROL ROOM to notify the Emergency Coordinator if property damage, fire, injuries requiring hospitalization, or reportable releases occur as a result of the utility failure.

7. The Incident Commander will continue to the coordinate incident until utility outage or leak and any hazards are isolated and restored.

8. The Incident Commander will review with the response team and all others involved and obtain agreement on the fact that the emergency condition is secured and safe to continue operations.

9. The Incident Commander conduct a debriefing/critique of the emergency response and document incident details.

PERSONNEL SPECIFIC DUTIES

Control Room

-
- Incident Commander until relieved.
- Serve as communications coordinator, log all communication.
- Notify additional resources as directed by the Incident Commander.
- Notify First Responders.
- Notify the Emergency Coordinator in cases of property damage, fire (beyond incipient), injuries requiring hospitalization, and/or regulatory reporting required, as directed by the Incident Commander.

First Responder

- Respond to all real and potential emergencies as directed by the CONTROL ROOM.
- Provide traffic and crowd control. Direct emergency vehicles.
- Provide initial medical response.
- Provide security.
- Assist with evacuation.
- Perform Hazard Evaluation.
- Coordinate with/assist other Responders.
- Report to location of the emergency as reported by the CONTROL ROOM, or respond directly to the area of an alarm device.
- Conduct evacuation, if necessary.
- Proceed to extinguish incipient fires.
- Coordinate with/assist other Responders.
- Perform hazard evaluation.
- Respond to scene as directed by CONTROL ROOM.
- Coordinate with/assist other Responders.
- Perform hazard evaluation
- Provide assistance with utility shut off and control.

Incident Commander

- Coordinate Responders.
- Request CONTROL ROOM to make notifications for additional resources.
- Document response actions and conduct debriefing/critique of ERP.

ERP-08 – SEVERE WEATHER PROCEDURE
1. GE management and/or Incident Commander will monitor information on severe weather from all available sources.
2. Employee communications regarding instructions on securing buildings and other areas of responsibility, will be directed by GE management and/or the Incident Commander.
2a. First Responders, GE Management, and EHS will assist in distributing information and communications as directed by the Incident Commander.
3. Responders and plant personnel will conduct and/or coordinate defensive measures (if safe to do so) as directed by the Incident Commander to protect personnel, the environment, and property from the effects of severe weather. Efforts will be focused on areas containing oils and hazardous materials, especially those that are subject to flooding.
3a. Prior to potential high wind events, Responders and plant personnel shall patrol the facility to identify and coordinate activities (as directed by the Incident Commander) to ensure windows and overhead doors are closed and loose materials outside are secured or placed indoors.
3b. Prior to potential flooding events, Responders and plant personnel shall patrol the facility to insure storm drains are open, insure emergency response equipment is accessible, coordinate with on-site hazardous waste contractor to insure oil and hazardous material storage areas are secure and if in an area prone to flooding, moved to a different area.
4. If a medical emergency, fire/explosion, spill/release, or utility failure occurs and/or evacuation is required, implement ERP-02, Medical Emergency Procedure; ERP-04, Fire/Explosion Emergency Procedure; ERP-05, Spill/Release Emergency Procedure; ERP-07, Utility Failure Emergency Procedure; and/or ERP-03 Emergency Evacuation Procedure, if required.
5. Incident Commander activates the Emergency Operations Center, if necessary.
6. EHS Responder evaluates impacted areas for potential safety and environmental hazards.
7. Incident Commander notifies Emergency Coordinator of property damage, hospitalization, fire (beyond incipient), or regulatory notification required.
8. GE Incident Commander gives “all clear” when the incident/emergency is over.
9. The Incident Commander conducts a debriefing/critique after the severe weather emergency is over.

ERP-08 – SEVERE WEATHER PROCEDURE

The objective of this Emergency Response Procedure (ERP) is to identify the appropriate actions to take in the event of severe weather, such as hurricanes, tornadoes, snow storms, and/or flooding. These actions are to be taken to protect life, property, and the environment and should be initiated in a timely manner. Although earthquakes are not specifically addressed, the actions described in this ERP and other specific ERPs would be initiated depending upon the effects of the tremors on the facility. As part of normal operations plant personnel will monitor the weather via various forms of media (NOAA Weather radio, Internet weather, field observations) and implement this program as necessary.

1. Communications to employees (all shifts) regarding instructions on securing buildings and other areas of responsibility will be directed by GE management and/or the Incident Commander, depending upon the timing and/or nature of the event. Messages will contain instructions on securing buildings, utilities, and other areas of responsibility, report on the condition of facility gates (open or closed for access), and report on road conditions (road closures, alternative routes, etc.). The communications may be made via the internal phone system, electronic mail, postings, signs, public address systems within buildings, hand-held radios, and/or local radio and televisions stations, depending upon the timing, nature, and severity of the event.

2a. First Responders, GE Management, and EHS will assist with distributing information and communications as directed by the Incident Commander.

2. Responders and other plant personnel will conduct and/or coordinate defensive measures (if it is safe to do so) as directed by the Incident Commander to protect personnel, the environment, and property from the potential effects of severe weather. All personnel shall use extreme caution if leaving protected areas during high wind events and lightning storms. Concentrate efforts in sensitive areas, including fuel farm, test cells and buildings along the river and in low-lying areas that are susceptible to flooding. In preparation for severe weather, Responders shall refuel all response team vehicles, emergency generators, diesel fire pump, portable pumps.

3a. Prior to events with potentially high winds, Responders and other plant personnel shall patrol the facility to identify and coordinate activities (as appropriate and directed by the Incident Commander) to ensure windows and overhead doors are closed, loose materials outdoors are secured or are placed inside buildings or protected areas.

3b. Prior to potential flooding events, Responders and other plant personnel shall: patrol the facility to identify and coordinate required activities to insure storm drains are open; coordinate with GE EH&S and management and if necessary the off-site hazardous waste contractor to insure drums, tanks, and containers of oils and hazardous materials are properly secured, pumped out, placed inside (if outside), or moved out of areas that

are potentially susceptible to flooding (i.e., low lying areas adjacent to storm drains and within the 100-year floodplain); and insure emergency response equipment is accessible.

4. If a medical emergency, fire/explosion, spill/release, and/or utility failure occurs, implement ERP-02, Medical Emergency Response Procedure, ERP-04, Fire/Explosion Emergency Response Procedure, ERP-05, Spill/Release Emergency Response Procedure, and/or ERP-07, Utility Failure Emergency Response Procedure.

5. The Incident Commander will activate the Emergency Operations Center, if necessary. The Emergency Operations Center will be established in the control room.
6. The EHS Responder and other EHS personnel will evaluate any areas impacted by the severe weather for potential safety and environmental hazards.

7. The Incident Commander shall notify the Emergency Coordinator of any property damage, hospitalization, fire (beyond incipient), or regulatory notification requirements.

8. The GE Incident Commander will determine when the incident/emergency is over and provide the "all clear" announcement.

9. After the incident/emergency is over, the Incident Commander shall conduct a debriefing/critique of the Severe Weather ERP and document response actions.

PERSONNEL SPECIFIC DUTIES

Control Room

- Incident Commander until relieved
- Serve as communications coordinator, log all commmunications.
- Notify additional resources as directed by the Incident Commander.
- Notify First Responders.

First Responders

- Respond to all real and potential emergencies as directed by the CONTROL ROOM or Incident Commander.
- Provide traffic and crowd control. Direct emergency vehicles.
- Assist other Responders in conducting defensive response measures.
- EMTs provide initial medical response.
- Provide security.
- Assist with evacuation.
- Perform hazard evaluation.
- Coordinate/assist with other Responders.
- Report to the location of the emergency as reported by the CONTROL ROOM or Incident Commander, or respond directly to the area of an alarm device.
- Conduct evacuation, if necessary.
- Coordinate/assist other Responders.
- Perform hazard evaluation.
- Assist other Responders in conducting defensive response measures.
- Respond to the scene as directed by CONTROL ROOM.
- Coordinate/assist with other Responders.
- Provide assistance with utility shut off and control.
- Perform hazard evaluation.
- Assist other Responders in conducting defensive response measures.
- Assign personnel to proceed to gate to direct outside Responders to scene.

Environmental Health and Safety

- Coordinate activities to address site environmental, health and safety considerations.
- Communicate EHS concerns within their areas of responsibility.
- Conduct any regulatory notifications as directed by the Emergency Coordinator.

- EHS Responder and other EHS personnel patrol the area at a safe distance for additional safety and environmental hazards.
- Direct storage and disposal of waste generated during any emergency response activities.
- Serve as the Incident Commander.
- Assess the location/security of tanks and containers of oils, hazardous materials, and hazardous waste to determine appropriate measures to prevent accidental release or spills during severe weather events.

Emergency Coordinator

- Obtain information on severe weather from all available sources.
- Initiates communications.
- Serve as the Incident Commander.
- Activate the Emergency Operations Center, if necessary.
- Direct or make regulatory notifications.
- Coordinate communications with GEAE upper management.

Incident Commander

- Coordinate Responders.
- Request CONTROL ROOM to make notifications for additional resources.
- Serve as Incident Commander of the First Responders and when the EHS Responder and/or Emergency Coordinator is off site and cannot respond because of the weather.
- Document response actions and conduct debriefing/critique of ERP.
- Provide the "all clear" announcement.

GEAE Management

- Issue communications regarding instructions on securing buildings and other areas of responsibility, with emphasis on securing the physical plant, utilities, and areas of potential EHS impacts.
- Managers provide coordination in their specific areas of responsibilities.

Other Plant Personnel

ERP-08 – SEVERE WEATHER PROCEDURE (CONT'D)

- Patrol the outside of plant areas to ensure windows and overhead doors are closed, loose outdoor materials are secured or are placed inside buildings or protected areas, storm drains are open.
- Coordinate with the on-site hazardous waste contractor and/or waste water personnel to insure drums, tanks, and containers of oils and hazardous materials are properly secured, pumped out, placed inside (if outside), or moved out of areas that are potentially susceptible to flooding.
- Assist Responders with defensive measures if it is safe to do so.

ERP-09 – ANHYDROUS AMMONIA RELEASE PROCEDURE

The objective of this Anhydrous Ammonia Release Emergency Response Procedure is to identify the appropriate actions to take when a release of anhydrous ammonia occurs from the storage tank, lines, or vaporization equipment located on the North side of HRSG # 1. The intent is to minimize the health, safety and environmental impacts from a release of anhydrous ammonia at the facility and surrounding community and to restore the facility to normal operating conditions as quickly as possible.

1. Ammonia has a strong, pungent odor that makes even the smallest of leaks easily detectable by smell. A medium to large leak of ammonia could be detectable from a safe distance through a visual white cloud escaping from the source leak.

2. A release is <u>controllable</u> if the ammonia flow can be shut-off or contained without employees being exposed to health or safety risks, or where the rate of release does not pose immediate danger (e.g., a faint ammonia odor is evident). In this situation, notification should be made immediately to CONTROL ROOM to alert First Responders who are properly trained to shut down required processes, if necessary, and/or the ammonia gas flow.

3. A release is <u>uncontrollable</u> if attempts to shut-off or control the ammonia flow would place a person at a health or injury risk. In this situation, persons should not attempt to contain the release. Instead, they should evacuate the immediate area of the release by moving laterally or upwind of the release area and initiate notifications as indicated below. In the event of an uncontrollable release, the public will be notified and evacuated by the police and fire department. If there is a large vapor release the water deluge system should be triggered remotely to quench the offending vapors.

3a. After personnel move to a location lateral or upwind from the release area, they should call the CONTROL ROOM and inform the CONTROL ROOM of the location (inside or outside) of the release and wind direction or direction in which the vapors appear to be moving (if known).

4. The CONTROL ROOM shall dispatch the First Responders to the scene. The Responder(s) will approach the area from an upwind or lateral direction to secure the area and determine whether evacuation of the Plant is necessary and/or outside resources are needed to control the release.

4a. If evacuation is required, First Responders shall follow ERP-03 and direct employees along evacuation routes and to a rally point that would not be exposed to the ammonia vapors.

4b. Upon evaluation of the release at a safe distance, the Incident Commander will request the CONTROL ROOM to notify Newington Fire (external 911) and/or the on-site hazardous waste contractor to control the release. The CONTROL ROOM will provide the outside responders with directions to approach the incident safely. If these outside resources are called in, the Incident Commander shall also request the CONTROL ROOM notify the EHS Responder and Emergency Coordinator.

5. If it is safe to do so, First Responders shall coordinate with plant personnel to shut off any ventilation systems and close windows and doors in the area to prevent the spread of the ammonia vapors to other areas of the building.

6. Emergency Coordinator report to the scene, if necessary, and coordinate with Newington Fire and/or hazardous waste contractor to determine if additional evacuation of the facility and any off-site, down wind locations is necessary. The Incident Commander will open the Emergency Operations Center, if necessary, and coordinate the response efforts from there or an alternative location.

7. The EHS Responder will evaluate the need for regulatory reporting (if the release exceeds the reportable quantity of 100 pounds or there is an off-site threat) and contact the Emergency Coordinator if regulatory notification is required.

8. Responders shall continually evaluate the need for medical services, rescue operations, and additional evacuation. Indication of potential serious health effects from ammonia vapors may include convulsive coughing, difficult and painful breathing, and/or eye irritation. Direct skin contact with liquid anhydrous ammonia can produce chemical and freeze burns requiring prompt medical attention.

9. After the ammonia release has been controlled and ammonia vapors have dissipated, the Incident Commander shall meet with the Responders to determine that no threat to health or safety exists and then give the all clear signal.

10. After the incident is terminated, the Incident Commander will document response actions and conduct a debriefing/critique of the Anhydrous Ammonia Release ERP.

PERSONNEL SPECIFIC DUTIES

Control Room

- Incident Commander until relieved.
- Serve as communications coordinator, log all communications.
- Notify the First Responders.
- Notify additional resources as directed by the Incident Commander.

First Responders

- Respond to all real and potential emergencies as directed by the CONTROL ROOM and/or Incident Commander.
- Provide security.
- Provide traffic and crowd control. Direct response vehicles.
- Coordinate/assist with other Responders.
- Assist with evacuation.
- Provide medical assistance.
- Assist with closing windows and doors and shutting down the building ventilation system if it is safe to do so.
- Assist in keeping people away from the affected area until the all clear signal is given by the Incident Commander.
- Perform hazard evaluation.
- Report to the location of the emergency as reported by the CONTROL ROOM and/or Incident Commander.
- Perform hazard evaluation.
- Coordinate with/assist other responders.
- Direct response vehicles.
- Assist with evacuation.
- Assist with closing windows and doors and shutting down the building ventilation system if it is safe to do so.
- Assist in keeping people away from the affected area until the all clear signal is given by the Incident Commander.
- Coordinate with/assist other Responders.
- Serve as Incident Commander, if necessary.
- Request CONTROL ROOM to notify EHS Responders, on-site hazardous waste contractor, Newington Fire, and Emergency Coordinator, if necessary.
- Assist with closing windows and doors and shutting down the building ventilation system if it is safe to do so.
- Provide assistance with utility shut off and control.
- Assign personnel to proceed to gate to direct Responders to scene.
- Assist in keeping people away from the affected area until the all clear signal is given by the Incident Commander.

Maintenance Personnel

- Perform any necessary immediate process or ammonia flow shut downs, check for leaks, make minor repairs (e.g., tighten valves, fittings, etc.) if qualified and it is safe to do so.
- Provide assistance with utility shut off and control.
- Assist with closing windows and doors and shutting down the building ventilation system if it is safe to do so.
- Assist in keeping people away from the affected area until the all clear signal is given by the GE Incident Commander.

Environmental Health and Safety

- EHS Responder and other EHS personnel patrol the area at a safe distance to identify additional safety and environmental hazards.
- Serve as Incident Commander, if necessary.
- Evaluate the need for regulatory reporting and make regulatory notifications as directed by Emergency Coordinator.
- Assist with evacuation.
- Assist in keeping people away from the affected area until the all clear signal is given by the GE Incident Commander.

Emergency Coordinator

- Coordinate with other Responder(s).
- Serve as Incident Commander, if necessary.
- Direct regulatory notifications.
- Coordinate with regulatory agencies if evacuation is necessary.

Incident Commander

- Coordinate Responders.
- Request CONTROL ROOM to make notifications for additional resources.
- Notify Emergency Coordinator of any property damage, injuries, or hospitalization.
- Coordinate with Newington Fire.
- Provide the all clear signal once the incident is resolved.
- Document response actions and conduct debriefing/critique of ERP.

OFF-site Hazardous Waste Contractor

- Contain or control the ammonia release using appropriate measures (water deluge spray and/or cover with tarp) wearing appropriate PPE (level B or A).
- Take defensive measures to prevent any water used for defensive measures from reaching storm drains.
- Assist with closing windows and doors and shutting down the building ventilation system if requested by the Incident Commander if Level B or A PPE is required to perform the tasks.

Newington Fire Department

- Provide a water deluge spray, if required, to control an ammonia vapor release.
- Provide medical assistance.
- Conduct search and rescue operations.

ERP-09 ***Anhydrous Ammonia Release Emergency Procedure***
1. If a release is <u>controllable</u> (i.e., flow can be shut off or contained without employee exposure or safety risk), notify appropriate plant personnel who are trained to shut down the system. Call the Control Room and request the CONTROL ROOM to dispatch First Responders if evacuation of the immediate area and/or other preventative measures may be required.
2. If a release is <u>uncontrollable</u> (i.e., attempts to shut off or contain the flow would place a person at a health or safety risk), evacuate the immediate area by moving upwind or laterally from the area. Inform the CONTROL ROOM of the location of the release and direction which the ammonia vapors appear to be moving.
3. If incident presents an immediate danger (i.e., threat of explosion, fire, vapor hazard), CONTROL ROOM dispatches first responders and calls external 911 (Newington 911) and/or the off-site hazardous waste contractor to control the release. Responders will approach the area from an upwind or lateral direction.
4. CONTROL ROOM notifies EHS Responder and Emergency Coordinator if off-site resources notified and /or other potential safety or environmental hazards exist.
5. Responder(s) determine if hazards affect evacuation routes, identify rally points and evaluate evacuation of downwind plant areas and off-site areas. Refer to the City of Newington Community Evacuation Plan for off-site evacuation procedures.
5. Employees evacuate the building with assistance from First Responders and report to the designated rally points. Proceed to alternate or secondary rally point if pathway is obstructed.
6. Incident Commander evaluates need for personnel searches and/or rescues, and notifies Responder(s) if necessary. Newington Fire conducts searches and/or rescues, if necessary
7. Responders coordinate with maintenance personnel to shut off any ventilation systems and close windows and doors in the area (if safe to do so).
8. Responders evaluate incident for other potential safety or environmental hazards. EHS Responder will determine if regulatory reporting criteria are met. Emergency Coordinate will make or direct any regulatory notifications.
9. Responder(s) determine if incident is resolved and emergency secured. GE Incident Commander makes “all-clear” announcement, who in turn notify Rally Point leaders.
10. Incident Commander conducts a debriefing/critique of the Anhydrous Ammonia Release ERP.

ERP-010 – CIVIL STRIFE AND SABOTAGE/TERRORISM THREAT PROCEDURE
1. GE management and/or Incident Commander will monitor information on severe weather from all available sources.
2. Main gate shall be closed with fence line and site monitored using installed cameras.
2a. All personnel shall be identified prior to opening gate.
3. In the event threats to personnel or property or bomb threats are received via telephone, follow the bomb threat checklist in ERP-06. Call 911 to notify the police and request their assistance.
4. In the event of acts of sabotage or terrorism, in addition to notifying the local police via 911, the Boston FBI office will be contacted at (617) 742-5533.
5. If the event takes place during off normal duty hours, members of the management team shall be notified and at least one member of the management team shall travel to the site and remain until the incident is over.
6. If the incident requires, the Fire Department shall be notified by calling 911.
7. No employee of this facility shall engage in verbal or physical confrontation with any person or persons taking part in any type of demonstration or other actions that may be considered to be civil strife, sabotage, or terrorism.
8. Notify PSNH ESCC per normal Dispatch contact numbers.
9. Notify ISO-NE via the Ring Down line, or telephone contact provided for dispatch.
10. Notify the Plant Owner's Asset Manager.
11. When feasible, an incident report (ERP-01) shall be completed per GECS Procedures by the Facility Manager.

ERP-010 – CIVIL STRIFE AND SABOTAGE/TERRORISM THREAT PROCEDURE

The objective of this Emergency Response Procedure (ERP) is to identify the appropriate actions to take during periods of civil strife or suspected acts of sabotage or terrorism.

1. Upon notification or identification of suspected acts of sabotage, terrorism or civil strife that involve or could potentially involve the facility, the main gate shall be closed and all personnel shall be identified prior to opening the gate.

2. The facilities' fence line and on-site areas shall be monitored using cameras installed at the around the facility.

3. Should telephoned threats be directed to personnel, property or identified as bomb threats, the procedures of ERP-06 and the bomb threat checklist should be followed.

   3.a Notify the police via 911 and request assistance.

4. For acts and threats of sabotage and terrorism the following notifications shall occur;

   4.a. Notify local police via 911 and request assistance.

   4.b. Notify the Boston FBI office at 617-742-5533.

5. If the event takes place during off normal duty hours, members of the management team shall be notified and at least one member of the management team shall travel to the site and remain until the incident is over.

6. If the incident requires, the Fire Department shall be notified by calling 911.

7. No employee of this facility shall engage in verbal or physical confrontation with any person or persons taking part in any type of demonstration or other actions that may be considered to be civil strife, sabotage, or terrorism.

8. Notify PSNH ESCC per normal Dispatch contact numbers.

9. Notify ISO-NE via the Ring Down line, or telephone contact provided for dispatch.

10. When feasible, an incident report (ERP-01) shall be completed per GECS Procedures by the Facility Manager.

Appendix B

Reporting & Notification Table

Reporting and Notification Requirements
Verbal and Written Notifications
Newington Energy, Newington, NH

V= Verbal Notification, W=Written Notification

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	Fire or Explosion +OHM	Fire or Explosion not associated with a release of oil or hazardous materials	Newington Fire Dept	9-1-1	SAF-C-6000	ASAP
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**
	St. Fire Marshall	Completed by Newington Fire Dept	NHFIRS 1	N/A	SAF-C6007.01	

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	HazWaste Emergency Fire, Explosion or release With off-site consequences	Imminent or actual hazardous waste emergency (fire, explosion, or release which could threaten public health, safety or welfare of the environment) RQ	Newington Fire NHDES – HazMat NHDES OIL Spill Response NHDES Off-Hour (NH St. Police HazMat) LEPC SERC	9-1-1 603-271-3899 603-271-3644 800-346-4009 9-1-1 9-1-1	SAF-C-6000 Env-Wm 513.01 Env-Wm 513.01 40CFR355.40(b)(1)	ASAP ASAP ASAP ASAP ASAP ASAP
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**
	Newington Fire NHDES – HazMat NHDES OIL Spill Response	Completed by Newington Fire Dept	NHFIRS 4 Spill Report Clean-up Report	N/A 603-271-3899	SAF-C6007.01	< 15 days

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	Spill into the River	Any spill into a navigable waterway, or spill of oil that could reach a surface body of water (via storm drains) that meets one or more of the following criteria: • Causes a film/sheen on the water; • Exceeds 1,000 gallon in a single spill event; • Discharged more than 42 gallons in each of two discharges within any 12-month period that may be harmful to public health, welfare or the environment	Newington Fire National Response Center NH DES Water Supplies NHDES Waste Water Treatment Plant Ops.	9-1-1 800-424-8802 603-271-0655 603-271-2001	SAF-C-6000 40CFR110.6 RSA RSA	ASAP As soon as knowledge of spill is obtained W/in 24 Hrs W/In 24 Hrs
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**
	Newington Fire NHDES – HazMat NHDES OIL Spill Response	Completed by Newington Fire Dept	NNFIRS 4 Spill Report Clean-up Report	N/A 603-271-3899	SAF-C6007.01	< 15 days

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	RQ Spill of Oil not to River	Any sudden, continuos or intermittent release to the environment (except surface water) of OIL if: • >25 gallons • Not contained ASAP • Not completely cleaned up in 24 hours • Impact to surface/ground water	NHDES Oil Spill Response NHDES Off-Hour (NH St. Police HazMat)	603-271-3644 800-346-4009	RSA146A-WS 412	
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**
	Newington Fire NHDES – HazMat NHDES OIL Spill Response EPA	Completed by Newington Fire Dept EPA - To comply with SPCC	NNFIRS 4 Spill Report Clean-up Report Spill Report	N/A 603-271-3899	SAF-C6007.01	< 15 days

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	CERCLA/EHS RQ Spill With off-site consequences	If the quantity of the release also equals or exceeds the CERCLA reportable quantity (appendix ___) or is an extremely hazardous substance (EHS) and any area outside the facility is likely to be affected.	Newington Fire National Response Center LEPC SERC	9-1-1 800-424-8802 9-1-1 9-1-1	SAF-C-6000 40CFR355.40(b)(1) SAF-C—6000-7.01	ASAP As soon as knowledge of spill is obtained
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**
	Newington Fire NHDES – HazMat NHDES OIL Spill Response	Completed by Newington Fire Dept	NNFIRS 4 Spill Report Clean-up Report	N/A 603-271-3899	SAF-C6007.01	< 15 days

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	Fuel/Oil Tank/Pipe Leak	Leak of flammable or combustible material from and aboveground or underground tank or piping.	Newington Fire	9-1-1	SAF-C-6000	ASAP
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**
	Newington Fire NHDES – HazMat NHDES OIL Spill Response	Completed by Newington Fire Dept	NNFIRS 4 Spill Report Clean-up Report	N/A 603-271-3899	SAF-C6007.01	< 15 days

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	PCB's	Do we need to report if we don't have any?				
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	Spill/Discharge to storm drain Less than permit.	A discharge of a material to a storm drain not included or known to be in exceedance of the NPDES Permit	USEPA Reg 1 Newington Water Treatment Plant	617-918-1261 603-431-4111	40CFR122.41(l)(6) Sewer Permit Part 3(A)	W/I 24 hrs ASAP
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	Spill/Discharge to storm drain greater than permit.	A discharge of a material to a storm drain in exceedance of the NPDES Permit	Newington Water Treatment Plant NH DES Water Supplies NHDES Waste Water Treatment Plant Ops	603-431-4111 603-271-0655 603-271-2001	Sewer Permit Part 3(A)	ASAP
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	Air Permit Exceedance	Any exceedance of air permit limits	NHDES Air Resources Div.	271-1370 271-5749 271-1381-Fax	Permit Part XVII Malfunction	W/in 8 Hrs
W	**To Whom**	**Notes**	**Form**	**Phone #**	**Citation**	**When**
	USEPA/NHDES	**Excess Emissions Report**	**Letter**			

	Quick Reference	Criterion	To Whom	Phone #	Citation	When
V	OSHA fatality or 3 to hospital	Any injury resluting in a fatality of one or people or the hospitalization of three or more people	OSHA	800-320-OSHA	29CFR1904.8	W/I 8 hrs

Appendix C

Sensitive Area Response Planning, Vulnerability Analysis, and ESI Maps

SENSITIVE AREA RESPONSE PLANNING
AND VULNERABILITY ANALYSIS
NEL Facility
Newington, NH

Sensitive Area Response Planning

The following sources of information were used to compile documentation on the economically important and environmentally sensitive areas found in a 15-mile response planning area associated with the NEL facility:

- Personnel at Newington Energy, Newington, NH
- Coastal Zone Management (CZM) Office, Concord, NH
- New Hampshire Coastal Program - Web site and associated links
- NHDES - Web site and associated links
- National Oceanic and Atmospheric Administration (NOAA) - Environmental Sensitive Information (ESI) maps

These sources of information are considered by government agencies as credible and reliable sources of information that may be used in this sensitive area assessment. The Area Contingency Plan (ACP) was also reviewed to verify the general accuracy of this information.

Mapping of Sensitive Areas

Sensitive areas identified via the sources described above were mapped on current USGS topographic maps for the site-specific response planning area. Those ESI maps have been included with this text document as Appendix C. Specifically, ESI maps have been included for the following USGS topographic maps:

- Southern Maine and New Hampshire Coastal Resource Maps - ESI Map #4 (Portsmouth, N.H.-M.E.)
- Southern Maine and New Hampshire Coastal Resource Maps - ESI Map #5 (Kittery, M.E.- N.H.)

Newington Energy is located on ESI Map #4, however ESI #5 has been obtained and included since a release to the Piscataqua River could potentially impact sensitive areas in the downstream region to the southeast.

Summary Description of Sensitive Areas

A narrative summary of identified sensitive areas for the NEL response planning area(s) is provided below. This narrative should be reviewed in conjunction with the Sensitive Area Maps and information on Response Priority Ranking and Recommended Response Actions provided below.

ONE-MILE

This response planning area extends to the Newington and Kittery Maine

NEWINGTON
Natural Communities - Terrestrial
** CNE Dry Transitional Forest on Acidic Bedrock or Till - - 1 9
* CNE Mesic Transitional Forest on Acidic Bedrock or Till - - 1 22
** SNE Coastal Rocky Headland Community - - 1 1
*** SNE Mesic Central Hardwood Forest on Acidic Bedrock or Till - - 1 5

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Natural Communities - Palustrine
** SNE Acidic Seepage Swamp - - 2 19
*** SNE Calcareous Seepage Swamp - - 1 3

Response: Contain spill at the source, use floating boom and sorbent materials and floating skimmer

Natural Communities - Estuarine
- Gulf of Maine Salt Marsh - - 1 38
-

Response: Contain spill at the source, use floating boom and sorbent materials and floating skimmer

Plants
*** Bulbous Bitter-Cress (Cardamine bulbosa) - E 1 5
*** Exserted Knotweed (Polygonum exsertum) - T 1 14
*** Hairy Hudsonia (Hudsonia tomentosa) - T 1 19
** Large Bur-Reed (Sparganium eurycarpum) - T 1 15
*** Northern Blazing Star (Liatris borealis) - E 1 14
*** Stout Bulrush (Scirpus robustus) - T 1 16

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Vertebrates - Birds
** Bald Eagle (Haliaeetus leucocephalus) T E 1 11
** Common Tern (Sterna hirundo) - E 1 8
** Grasshopper Sparrow (Ammodramus savannarum) - T 1 3
Henslow's Sparrow (Ammodramus henslowii) - W 1 1
** Upland Sandpiper (Bartramia longicauda)

Response: Contain spill at the source, use floating sea boom and sorbent materials and floating skimmer.

FIVE-MILE

In addition to the above, this zone includes Newington Harbor, Broad Sound, Nahant Harbor, and coastal portions of Newington, Portsmouth, Dover, Durham, Elliot ME, Kittery ME,

Dover
Natural Communities - Terrestrial
** SNE Stream Bottom Forest - - 2 8

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Natural Communities - Estuarine
** Gulf of Maine Brackish Tidal Marsh - - 2 12
** Gulf of Maine Fresh/Brackish Intertidal Flat Community - - 3 11

Response: Contain spill at the source, use floating sea boom and sorbent materials and floating skimmer.

Plants
** Eastern Lilaeopsis (Lilaeopsis chinensis) - T 2 6
Engelmann's Quillwort (Isoetes engelmannii) - - Historical 17
** Exserted Knotweed (Polygonum exsertum) - T 1 14
** False Water Pimpernell (Samolus parviflorus) - T 2 6
*** Fringed Gentian (Gentiana crinita) - T 3 28
* Hairy Hudsonia (Hudsonia tomentosa) - T 1 19
Knotty Pondweed (Potamogeton nodosus) - - Historical 18
* Large Bur-Reed (Sparganium eurycarpum) - T 1 15
** Large Salt Marsh Aster (Aster tenuifolius) - E 1 4
*** Northern Blazing Star (Liatris borealis) - E 1 14
** Pale Green Orchis (Platanthera flava var herbiola) - T 3 8
Prolific Knotweed (Polygonum prolificum) - T Historical 9
Salt-Marsh Gerardia (Agalinis maritima) - T Historical 9
** Small Spike-Rush (Eleocharis parvula) - T 3 19
*** Stout Bulrush (Scirpus robustus) - T 1 16
Trailing Bush-Clover (Lespedeza procumbens) - E Historical 2

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Vertebrates - Birds
** Golden-Winged Warbler (Vermivora chrysoptera) - W 1 2
** Upland Sandpiper (Bartramia longicauda) - E 1 5

Response: Contain spill at the source, use floating sea boom and sorbent materials and floating skimmer.

Invertebrates - Insects
A Noctuid Moth (Chaetaglaea cerata) - - Historical 5
A Noctuid Moth (Idia diminuendis) - - Historical 4
Pink Sallow (Psectraglaea carnosa)

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

DURHAM
Natural Communities - Terrestrial
** CNE Mesic Transitional Forest on Acidic Bedrock or Till - - 1 22

** Rich Appalachian Oak-Hickory Talus Forest/Woodland - - 1 2
* SNE Circumneutral Talus Forest/Woodland - - 1 11
SNE Rich Mesic Forest - - Historical 12
- SNE Stream Bottom Forest - - 1 8

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Natural Communities - Palustrine
** SNE Acidic Seepage Swamp - - 1 19
** SNE Basin Swamp - - 1 11
** SNE Level Bog - - 1 19
** SNE Seepage Marsh

Response: Contain spill at the source, use floating sea boom and sorbent materials and floating skimmer.

Natural Communities - Estuarine
** Gulf of Maine Brackish Tidal Marsh - - 2 12
** Gulf of Maine Salt Marsh - - 3 38

Response: Contain spill at the source, use floating sea boom and sorbent materials and floating skimmer.

Plants
American Plum (Prunus americana) - T Historical 7
** Black Maple (Acer nigrum) - T 2 10
Blunt Sphenopholis (Sphenopholis obtusata) - E Historical 1
** Blunt-Lobe Woodsia (Woodsia obtusa) - T 1 8
Downy False-Foxglove (Aureolaria virginica) - T Historical 11
Dwarf Glasswort (Salicornia bigelovii) - T Historical 7
Eaton's Quillwort (Isoetes eatonii) - - Historical 8
Engelmann's Quillwort (Isoetes engelmannii) - - Historical 17
*** Exserted Knotweed (Polygonum exsertum) - T 3 14
Flat-Leaved Rush (Juncus platyphyllus) - - Historical 1
Fringed Gentian (Gentiana crinita) - T Historical 28
Giant Rhododendron (Rhododendron maximum) - - Historical 15
Hairy Brome-Grass (Bromus pubescens) - T Historical 4
** Knotty Pondweed (Potamogeton nodosus) - - 1 18
** Large Bur-Reed (Sparganium eurycarpum) - T 3 15
Large-Spored Quillwort (Isoetes macrospora) - T Historical 5
Lined Bulrush (Scirpus pendulus) - T Historical 5
Many Leaved Bulrush (Scirpus polyphyllus) - E Historical 3
* Marsh Elder (Iva frutescens ssp oraria) - T 1 9
Marsh Horsetail (Equisetum palustre) - T Historical 12
Missouri Rock-Cress (Arabis missouriensis) - T Historical 11
Netted Chain-Fern (Woodwardia areolata) - E Historical 3
Northern Blazing Star (Liatris borealis) - E Historical 14
Pale Early Violet (Viola affinis) - E Historical 4
Philadelphia Panic-Grass (Panicum philadelphicum) - E Historical 8
Prolific Knotweed (Polygonum prolificum) - T Historical 9
Purple Milkweed (Asclepias purpurascens) - - Historical 4
** Robust Knotweed (Polygonum robustius) - T 1 6
** Salt-Marsh Gerardia (Agalinis maritima) - T 1 9
Sharp Flowered Manna-Grass (Glyceria acutiflora) - E Historical 9
** Small Crested Sedge (Carex cristatella) - - 2 12
Smooth Rock-Cress (Arabis laevigata) - - Historical 5
** Star-Duckweed (Lemna trisulca) - - 1 5

** Stout Bulrush (Scirpus robustus) - T 2
Three-Seeded Mercury (Acalypha virginica) - T Historical 5
* Turk's-Cap Lily (Lilium superbum) - E 1 1
* Variegated Horsetail (Equisetum variegatum) - - 1 23
** Water Marigold (Megalodonta beckii) - - 2 12
- Water-Plantain (Ranunculus ambigens) - E 1 3

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Vertebrates - Birds
** Common Tern (Sterna hirundo) - E 1 8
** Fish Crow (Corvus ossifragus) - - 1 3
** Golden-Winged Warbler (Vermivora chrysoptera) - W 1 2
** Great Blue Heron (rookery) (Ardea herodias) - - 1 37
** Osprey (Pandion haliaetus) - T 1 34

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Vertebrates - Reptiles
** Blanding's Turtle (Emydoidea blandingii) - - 3 58
Eastern Hognose Snake (Heterodon platirhinos) - T Historical 15
** Spotted Turtle (Clemmys guttata) - - 4 36

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Invertebrates - Insects
A Noctuid Moth (Chaetaglaea cerata) - - Historical 5
A Noctuid Moth (Chytonix sensilis) - - Historical 3
A Noctuid Moth (Trichosilia manifesta) - - Historical 2
*** Banded Bog Skimmer Dragonfly (Williamsonia lintneri) - E 2 5
Bog Elfin (Callophrys lanoraieensis) - - Historical 1
** Columbine Duskywing (Erynnis lucilius) - - 1 4
Frosted Elfin (Callophrys irus) - E Historical 7

Response: Contain spill at source, use sorbents to remove surface contamination, remove contaminated soil for disposal

Invertebrates - Mollusks
**** Brook Floater (Alasmidonta varicosa)

Response: Contain spill at the source, use floating sea boom and sorbent materials and floating skimmer.

15-Mile

This area may extend to North towards and into Great Bay, the Salmon Falls and Cocheco Rivers, Areas in Maine that border the Piscataqua River, Coastal Maine and New Hampshire and may include such areas as:

Newmarket
Newfields
Stratham
Greenland
NewCastle,
Rye
North and South Berwick Maine
York Maine,
Kittery Maine

The above-listed areas, and any others that may be affected by a worst-case discharge, should be evaluated on an as-needed basis for the presence of vulnerable areas, as identified in Section 1.4.2 of Appendix F to 40 CFR 112, to determine protective measures. The Sensitive Area Maps should be referenced when doing so.

Vulnerability Analysis

Oil spills at the Newington Energy facility have the potential to impact human health, property, or the environment, depending on the amount of product spilled, the location of the spill, and the amount of time the spilled oil is uncontrolled. The facility is located approximately 1000-feet southwest of the Piscataqua River. Potentially vulnerable receptors resulting from an oil spill at the facility principally include the Piscataqua River, Portsmouth Harbor, and associated environmental resources. Due to the location of the facility, there are vulnerable areas in the immediate vicinity of the facility including wetland areas, fish and wildlife and other businesses located along the waterfront.

Response actions are planned in order to protect these areas as much as possible. In the event of a spill, detailed response and spill management procedures are outlined in Section II of this Plan. The Sensitive Areas information presented above in this Appendix outlines appropriate response actions to protect vulnerable resources.

The section below provides information regarding other specific areas of concern.

Schools: No schools are located within a one (1) mile of the facility. It is expected that a spill at the facility would have no impact to these facilities. A community evacuation would be directed by the local Fire Department.

Medical Facilities: There are no medical facilities located in the immediate vicinity of the facility which would potentially be impacted by a spill at the facility. The medical facility to be contacted in an emergency is Portsmouth Regional Hospital in Portsmouth. Directions to and phone numbers for the facility are located in the facility's Emergency Plan.

Residential Areas: The areas surrounding the facility is partially residential. Community evacuation would be directed by the local Fire Department.

Lakes and Streams: The facility is located on the Piscataqua River in the Portsmouth Harbor. There are no other nearby rivers/streams or lakes that would be impacted by a potential spill at the facility.

Transportation: Pease International Airport is located approximately three (3) miles southwest from the facility. The nearest major highway routes to the facility include Route 4 (located approximately 1/2 mile southwest of the facility) and Interstate 95 (located approximately 3 miles southeast of the facility).

Businesses and Utilities/Intakes: Newington Energy is an electrical power generating station. The facility operates one (1) cooling water intake for the purposes of cooling oil, generators and various heat exchangers. Details are presented in Section III. 1.c. of this ICP. Other nearby facilities with water intakes include the following:

- Shaftmaster Fish Co. (Fish/Lobster) - Circulating Water
- PSNH Newington and Schhiller Stations (Electric Utility) - Cooling Water
- Portsmouth, Naval Shipyard (Electric Utility) - Cooling Water
- Portsmouth Fisherman's Co-Op (Fish/Lobster) - Circulating Water
- Newicks (Fish/Lobster) - Circulating Water
- Badger's Island (Fish/Lobster) - Circulating Water

Recreational Areas: There are a variety of recreational areas in the vicinity of the facility. The Portsmouth Harbor consist of numerous yacht clubs and marinas. It is expected that a spill at the facility would have minimal to no impacts to these facilities. A large or worst case spill could potentially impact nearby waterfront areas. Newington Energy employs appropriate response procedures, equipment and contracts in order to minimize the potential for a spill to travel beyond the facility limits. A community evacuation would be directed by the local Fire Department, if necessary.

Environmental Sensitive Information (ESI) Maps

ESI maps have been included for the following USGS topographic maps:

- Southern Maine and New Hampshire Coastal Resource Maps - ESI Map #4 (Portsmouth, N.H.-M.E.)
- Southern Maine and New Hampshire Coastal Resource Maps - ESI Map #5 (Kittery, M.E.- N.H.)

Newington Energy is located on ESI Map #4, however ESI #5 has been obtained and included since a release to the Piscataqua River could potentially impact sensitive areas in the downstream region to the southeast. An Index to Southern Maine and New Hampshire Coastal Resource Map has also been included. The index can be used to identify the following resources on the above reference maps:

- Wetlands or other sensitive environments;
- Fish and Wildlife;
- Lakes and Streams; and
- Endangered Flora and Fauna.

Shoreline types are color coded in a ranked order to indicate increasing oil spill damage and long-term persistence. Response measures should primarily protect environments ESI-8, 9, and 10. The following is a description of shoreline types that may be affected by an oil release within the vicinity of Newington Energy as well as the predicted impact of an oil release on those areas:

5 a. Mixed Sand and Gravel Beaches

- Comments
  - Very common throughout the study site
  - Present in both sheltered and exposed areas
  - Common as a narrow beach or stringer on top of bedrock platforms
  - Composed of coarse-grained sand, gravels of varying sizes and possibly shell fragments
  - In active beaches, organisms are scarce due to the harshness of the environment
  - In stable habitats, algae may be attached to the larger fravel or boulder composnents
  - The larger rocks may also provide habitat for mussels, crabs, and snails
- Predicted Oil Impact
  - Oil will be deposited primarily along the high-tide swash zone
  - Under very heavy accumlations, oil may spread across the entire beach face
  - Oil percolation into the beach may be up to 60 cm in well-sorted material
  - Burial may be very deep along the berm
  - Biota present may be killed by the oil, either by smothering or by lethal concentrations in the water column
- Recommended Response Activity
  - Remove oil primarily form the upper swash lines
  - Removal of sediment should be limited
  - Mechanical reworking of the sediment into the wave zone, and/or high pressure water spraying can effectively remove the oil; sorbent boom may be necessary to capture oil outflow

6. Gravel Beaches

- Comments
  - Common along the exposed, Atlantic Ocean portion of the study site
  - Composed of gravels and cobbles of varying sizes
  - Shell fragments and woody debris are also common beach components
  - Biomass is generally very low in high-wave areas; at calmer sites, the population of fauna and attached algae may be fairly great; crabs, snails, mussels, barnacles, and attached algae are most common

- Predicted Oil Impact
  - Under light to moderate concentrations, oil will be deposited primarily along the last high-tide swash zone.
  - With heavy oil quantities, the entire beach face may be covered
  - Oil may percolate rapidly and deeply (up to 1 m) into the beach face
  - If oil is left to harden, an asphalt/gravel pavement may result
  - Resident fauna and flora may be killed by the oil

- Recommended Response Activity
  - Removal of sediment should be restricted
  - Pushing gravel into the active surf zone and use of high-pressure water spraying is effective at removing oil while is still fresh.
  - Sorbent booms should be used to capture oil outflowing during the above cleansing process.

7. Exposed Tidal Flats (Mod. To High Biomass)

- Comments
  - Common in Casco Bay
  - Visable only at low tide
  - Exposed to low to moderate wave energy and/or tidal currents
  - Composition is most commonly sand or mixed sand and gravel
  - Species density and diversity may be high; soft-shelled clams and worms are most important

- Predicted Oil Impact
  - Most oil will be pushed across the flat as the tide rises
  - Deposition of oil on the flat may occur on a falling tide if oil concentrations are heavy
  - Biological damage may be severe

- Recommended Response Activity
  - Cleanup is very difficult (and possible only during low tides)
  - The use of heavy machinery should be restricted to prevent mixing oil into the sediments
  - On sand flats, oil will be removed naturally from the flat and deposited on the adjacent beaches where cleanup is more feasible. In gravelly areas, oil may bind with the sediment; high-pressure water spraying may be necessary

8. Sheltered Rocky Shores

- Comments
  - Composed of bedrock outcrops, ledges, or boulders
  - Located in calm, interior environments
  - Particularly common with the interior portion of Casco Bay
  - Species density and diversity vary greatly, but barnacles, mussels, crabs, snails, and rockweed are often very abundant

- Predicted Oil Impact
  - Oil will persist for several years especially between rocks
  - Upper intertidal biota and algae will be most severely affected
  - Algae present in the lower intertidal zone are most resistant to damage

- Recommended Response Activity
  - These areas needing Priority protection using deflection booms, sorbent booms, and offshore skimmers
  - High and low-pressure water spraying is effective while oil is still fresh.
  - Cutting of oiled algae is generally not recommended.

9. Sheltered Tidal Flats

- Comments
  - Very common in the estuaries of the study site and the upper portions of Casco Bay
  - Present in calm-water habitats, sheltered from major wave activity
  - Composed of muds
  - Usually contain large population of clams, worms, and snails; many of these flats are commercially harvested
  - Bird life is seasonally abundant

- Predicted Oil Impact
  - Oil may persist for many years
  - Long term oil incorporation into tidal flat sediments is common
  - Oil deposition will commonly occur along the upper fringes of the flat
  - Very heavy oil accumulations will cover much of the flat surface
  - Biological damage may be severe

- Recommended Response Activity
  - This is a high-priority area necessitating the use of spill protection devices to prevent or limit oil spill impact; open water, deflection, and sorbent booms and open-water skimmers should be used
  - Cleanup of the flat surface after oiling is very difficult because of the soft substrate
  - Manual operations from shallow-draft boats may be helpful

10. Marshes

- Comments
  - Common as narrow, fringing marshes or as broad areas within estuaries
  - Very sheltered from waves and tidal activity
  - Composed primarily of *Spartina* grasses on an organic-rich mud base
  - Crabs are particularly common
  - Bird life is particularly abundant
  - Marshes provide a nursery ground for numerous fish species

- Predicted Oil Impact
  - Oil in heavy accumulations may persist for decades
  - Small quantities of oil will be deposited primarily along the outer marsh fringe or along the upper wrack (debris) swash line
  - Resident biota, including bird life, are likely to be oiled and possibly killed

- Recommended Response Activity
  - Under light oiling, the best practice is to let marsh recover naturally
  - During winter months, surface ice commonly offers shoreline protection
  - Cutting of oiled grasses and low-pressure water spraying are effective, especially during the early of the spring growing season
  - Heavy oil accumulations on the marsh should be removed manually; access across the marsh should be greatly restricted
  - Cleanup activities should be carefully supervised to avoid excessive damage to the marsh

Manmade structures

- Comments
  - Common in developed area and backing recreational beaches
  - Composed of rip-rap, concrete and stone, wooden or metal bulheads, and wooden pilings
  - Concrete and stone are most common along the outer coast (behind the beach) and along the sheltered residential areas
  - Organisms and algae may be common in rip-rap structures and on pilings
  - Biota on concrete structures along the upper intertidal or supratidal zones is sparse

- Predicted Oil Impact
  - Oil would percolate easily between the gravel and boulders of rip rap structures
  - Oil would coat the intertidal areas of solid structures
  - Biota would be damaged or killed under heavy accumulations

- Recommended Cleanup Activity
  - May require high-pressure spraying:
    - To remove oil
    - To prepare substrate for recolonization of barnacle and oyster communities
    - For aesthetic reasons
  - Since rip-rap is often associated with developed, recreational beaches, cleanup would be advisable to minimize chronic leaching of oil trapped in the rocks.

INDEX TO SOUTHERN MAINE AND NEW HAMPSHIRE COASTAL RESOURCE MAP

SHORELINE TYPES

Shoreline types are color coded in a ranked order to indicate increasing oil spill damage and long-term persistance. Response measures should primarily protect environments ESI-8, 9, and 10.

Sensitivity

1. Exposed rocky shores.
2. Exposed rocky ledges.
3. Fine-grained sand beaches.
4. Coarse-grained sand beaches.
5A. Exposed low-tide terraces (low biomass).
5B. Mixed sand & gravel beaches.
6. Gravel beaches.
7. Exposed tidal flats (mod.-to-high biomass)
8. Sheltered rocky shores.
9. Sheltered tidal flats.
10. Marshes

(unranked) Man-made structures (seawalls, piers, etc.)

BIOLOGICAL FEATURES

RESIDENT MARINE MAMMALS

- Seals — Haulout grounds or pupping areas

MARINE BIRDS

- Wading Birds — Heron, egret, rail and related bird nesting and feeding areas
- Diving Birds — Loon, grebe, cormorant and related bird nesting and feeding areas
- Pelagic Birds — Shearwater, fulmar, petrel, alcid and other offshore bird nesting and feeding areas
- Waterfowl — Migratory waterfowl overwintering areas
- Shorebirds — Most common feeding areas
- Gulls or Terns — Rookeries or feeding area
- Raptors — Hawks and eagles found in coastal areas

SHELLFISH

- Lobsters — General lobster areas
- Clams — Clam, scallop or mussel areas
- Oysters — Oyster beds

FINFISH

- Fish — Anadromous Fish concentrations (nearshore and riverine)

SEA GRASSES

- Eelgrass — Eelgrass (*Zostera*) beds (in Maine only)

WORM BEDS

- Worm — Major intertidal worm beds (in Casco Bay only)

SOCIOECONOMIC FEATURES

- Marinas and yacht clubs
- Parks
- Boat ramps
- Lobster holding facilities (maps 14-25 only)
- Picnicking sites
- Recreational beaches
- Industrial intakes (maps 14-25 only)
- Aquaculture facilities (maps 14-25 only)
- Power plants
- Wildlife preserves (maps 14-25 only)
- Field survey sites

SPECIES KEY

MAMMALS

2. Harbour Seal *(Phoca vitulina)*
14. Gray seal *(Halichoerus grypus)*

SHELLFISH

19. Blue mussel *(Mytilus edulis)*
25. Soft shell clam *(Mya arenaria)*
34. Atlantic bay scallop *(Argopecten irradians)*
43. American oyster (eastern) *(Crassostrea virginica)*
45. American lobster *(Homarus americanus)*

BIRDS

C. Various waterfowl
E. Various wading birds
8. Double-crested cormorant *(Phalacrocorax auritus)*
12. Canada goose *(Branta canadensis)*
22. Greater scaup *(Aythya marila)*
38. Herring gull *(Larus argentatus)*
45. Common tern *(Sterna hirundo)*
54. Great blue heron *(Ardea herodias)*
77. Osprey *(Pandion haliaetus)*
86. Least tern *(Sterna albifrons)*
87. Little blue heron *(Egretta caerulea)*
89. Snowy egret *(Egretta thula)*
90. Black-crowned night heron *(Nycticorax nycticorax)*
91. Glossy ibis *(Plegadis falcinellus)*
92. Great black-backed gull *(Larus marinus)*
93. Cattle egret *(Bubulcus ibis)*
94. Louisiana heron *(Egretta tricolor)*
95. Roseate tern *(Sterna dougallii)*
103. Common eider *(Somateteria mollissima)*
112. Black guillemot *(Cepphus grylle)*
153. Piping plover *(Charadrius melodus)*
186. Black duck *(Anas rubripes)*

FISH

84. Rainbow smelt *(Osmerus mordax)*
85. Alewife *(Alosa pseudoharengus)*
86. Blueback herring *(Alosa aestivalis)*
87. American shad *(Alosa sapidissima)*
99. Atlantic tomcod *(Microgadus tomcod)*
101. Shortnose sturgeon *(Acipenser brevirostrum)*
102. Atlantic sturgeon *(Acipenser sturio)*
104. Striped bass *(Morone saxatilis)*
144. Atlantic salmon *(Salmo salar)*
145. White perch *(Morone americana)*

ENDANGERED

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SPILL—RESPONSE DATA

- Open-water boom (large, durable, and able to handle rough seas).
- Harbor boom for calmer or interior environments.
- Open-water skimmer with paravanes for use in channels and embayments.
- Inlet closure for small inlets which have interior marshes and/or tidal flats.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

PORTSMOUTH QUADRANGLE
NEW HAMPSHIRE—MAINE
7.5 MINUTE SERIES (TOPOGRAPHIC)
SE/4 DOVER 15' QUADRANGLE

DISTRIBUTED THROUGHOUT THESE WATERS

102 86 85 87
144 104 84 99

DISTRIBUTED THROUGHOUT THESE WATERS

DISTRIBUTED THROUGHOUT THESE WATERS

DISTRIBUTED THROUGHOUT THESE WATERS

SPAWNING MIGRATION THROUGHOUT AREA

DISTRIBUTED THROUGHOUT THESE WATERS

U S MILITARY RESERVATION
PEASE AIR FORCE BASE

SOUTHERN MAINE AND NEW HAMPSHIRE

SHORELINE TYPES

SENSITIVITY

1. EXPOSED ROCKY SHORES.
2. EXPOSED ROCKY LEDGES.
3. FINE-GRAINED SAND BEACHES.
4. COARSE-GRAINED SAND BEACHES.
5A. EXPOSED LOW-TIDE TERRACES (LOW BIOMASS).
5B. MIXED SAND & GRAVEL BEACHES.
6. GRAVEL BEACHES.
7. EXPOSED TIDAL FLATS (MOD.-TO-HIGH BIOMASS)
8. SHELTERED ROCKY SHORES.
9. SHELTERED TIDAL FLATS.
10. MARSHES

MAN-MADE STRUCTURES (SEAWALLS, PIERS, ETC.)

BIOLOGICAL FEATURES

SHELLFISH
- LOBSTERS
- OYSTER BEDS
- CLAM OR MUSSEL BEDS

FISH
- ANADROMOUS FISH

MAMMALS
- SEALS

BIRDS
- GULLS AND TERNS
- WADING BIRDS
- SHOREBIRDS
- WATERFOWL
- RAPTORS
- DIVING BIRDS
- PELAGIC BIRDS

OTHER
- EELGRASS
- WORM FLATS

SUMMER (JJA) · FALL (SON) · WINTER (DJF) · SPRING (MAM)

SOCIOECONOMIC FEATURES

- MARINAS AND YACHT CLUBS
- PARKS
- BOAT RAMPS
- LOBSTER HOLDING FACILITIES (MAPS 14-25 ONLY)
- PICNICKING SITES
- RECREATIONAL BEACHES
- INDUSTRIAL INTAKES (MAPS 14-25 ONLY)
- AQUACULTURE FACILITIES (MAPS 14-25 ONLY)
- POWER PLANTS
- WILDLIFE PRESERVES (MAPS 14-25 ONLY)
- FIELD SURVEY SITES

SPILL RESPONSE FEATURES

- OPEN-WATER BOOMS
- INLET CLOSURE
- HARBOR BOOMS
- OPEN-WATER SKIMMERS

Mapped by the Defense Mapping Agency
Edited and published by the Geological Survey
Control by USGS and NOS/NOAA
Culture and drainage in part compiled from aerial photographs taken 1943. Topography by planetable surveys 1944

SCALE 1:24000

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET-DATUM IS MEAN LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 7 FEET

UTM GRID AND 1981 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Revisions shown in purple and woodland compiled by the Geological Survey from aerial photographs taken 1979 and other sources

1956
PHOTOREVISED 1981

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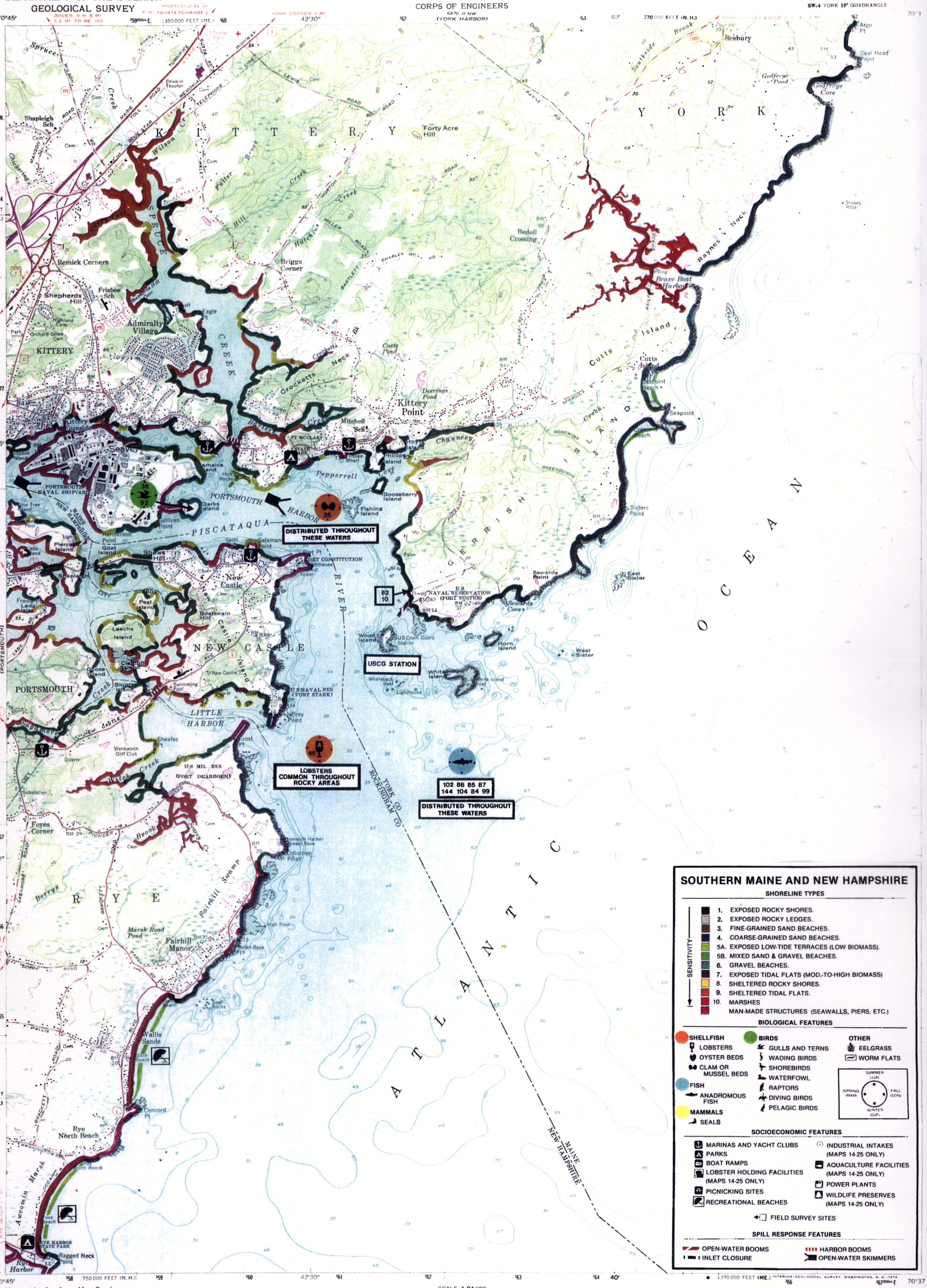
ESI MAP # 4

PORTSMOUTH, N. H.—ME.
SE/4 DOVER 15' QUADRANGLE
N4300—W7045/7 5

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

KITTERY QUADRANGLE
MAINE--NEW HAMPSHIRE
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW/4 YORK 15' QUADRANGLE



KITTERY
YORK
Seabury
Spruce Creek
Kittery Point
Brave Boat Harbor
Gerrish Island
Cutts Island
PORTSMOUTH HARBOR
PISCATAQUA RIVER
PORTSMOUTH NAVAL SHIPYARD
Seavey
New Castle
NEW CASTLE
PORTSMOUTH
LITTLE HARBOR
RYE
Rye North Beach
Rye Harbor
ATLANTIC OCEAN
DISTRIBUTED THROUGHOUT THESE WATERS
LOBSTERS COMMON THROUGHOUT ROCKY AREAS
USCG STATION
102 86 85 87
144 104 84 99
DISTRIBUTED THROUGHOUT THESE WATERS
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SHORELINE TYPES
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2. EXPOSED ROCKY LEDGES.
3. FINE-GRAINED SAND BEACHES.
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6. GRAVEL BEACHES.
7. EXPOSED TIDAL FLATS (MOD.-TO-HIGH BIOMASS)
8. SHELTERED ROCKY SHORES.
9. SHELTERED TIDAL FLATS.
10. MARSHES
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LOBSTERS
OYSTER BEDS
CLAM OR MUSSEL BEDS
FISH
ANADROMOUS FISH
MAMMALS
SEALS
BIRDS
GULLS AND TERNS
WADING BIRDS
SHOREBIRDS
WATERFOWL
RAPTORS
DIVING BIRDS
PELAGIC BIRDS
OTHER
EELGRASS
WORM FLATS
SUMMER (JJA)
SPRING (MAM)
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BOAT RAMPS
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PICNICKING SITES
RECREATIONAL BEACHES
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POWER PLANTS
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SPILL RESPONSE FEATURES
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(803) 256-7322

UTM GRID AND 1973 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 8.7 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

Revisions shown in purple compiled from aerial photographs taken 1973. This information not field checked

ESI MAP # 5

KITTERY, ME.—N.H.
SW/4 YORK 15' QUADRANGLE
N4300—W7037.5/7.5

1956
PHOTOREVISED 1973
AMS 6870 II SW—SERIES V811

Appendix D

AST Inventory Table
(Information Provided by GECS)

Newington Energy, LLC

Petroleum Aboveground Storage Tanks (ASTs)

Item Number	1	2	3	4	5	6	7	8	9
Description	**Unit 1 False Start Drains Tank**	**Unit 2 False Start Drains Tank**	**Emergency Generator Fuel Tank**	**Diesel Fire Pump Tank**	**Unit 1 Lube Oil Tank**	**Unit 2 Lube Oil Tank**	**Steam Turbine Lube Oil Tank**	**Steam Turbine Hydraulic Power Unit**	**Station Service Transformer A**
I. Tank Information									
A. Tanks									
Tank Equipment No.	1-FO-TK-1001	1-FO-TK-2001	1DG-DG-0001	1FP-P-0002	1GT-TRB-1001	1GT-TRB-2001	1ST-TRB-0001	1ST-TRB-1001, HPU	1EM-TF-A
A. Capacity in Gallons (net working/nominal)	250 / 236	250 / 236	425 / 425	350 /350	6200 / 6200	6200 / 6200	4300 / 4300	135/135	2215 / 2215
B. Horizontal or Vertical Tank?	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Vertical
C. Shop-fabricated or Field-erected?	Shop	Shop	Shop	Shop	Shop	Shop	Shop	Shop	Shop
D. Tank diameter	30"	30"	NA	36"	NA	NA	NA	NA	NA
E. Tank height/length	90" length	90" length	56"W x 132"L x 18"H	6'-0"	126"W x 264"L x 60"H	126"W x 264"L x 60"H	126"W x 264"L x 60"H	32"W x 53"L x 26"H	61.5"W x 100"L x 115"H
F. Product to be stored	No. 2 Fuel Oil	No. 2 Fuel Oil	No. 2 Fuel Oil	No. 2 Fuel Oil	Lube Oil	Lube Oil	Lube Oil	Hydraulic Oil	Transformer Oil
G. Tank Manufacturer	Allied	Allied	Klein	Sterling	General Electric	General Electric	General Electric	General Electric	Asea Brown Broveri
H. Foundation Type	Mat	Mat	Structural Steel	Structural Steel	Structural Steel	Structural Steel	Structural Steel	Structural Steel	Mat
I. Is proposed tank double walled?	No	No	Yes	No	No	No	No	No	No
J. Is proposed tank fire protected iaw UL 2085?	No	No	No	No	No	No	No	No	No
K. Is proposed tank in contact with the soil?	No	No	No	No	No	No	No	No	No
L. Will proposed tank be installed in an underground vault?	Yes	Yes	No	No	No	No	No	No	No
II. Secondary Containment									
A. Type of Secondary Containment (e.g. dike, berm, dike tank, double-walled tank, remote impoundment, etc)	Concrete Sump	Concrete Sump	Double Wall Tank	Reservoir	Dike	Dike	Concrete Sump	Concrete Sump	Concrete
B. Will tank be located inside a building?	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No
C. What is the volume of secondary containment? (In gallons)	3434	3434	435	350	6200	6200	17,200	17,200	22,500
D. Is secondary containment protected from rain/snowfall? No or Yes. If so, how?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
E. How will accumulated stormwater be handled?	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Routine Inspection and Drainage
III. Overfill Protection									
A. What kind of gauge(s) will be installed on the tank system(s)?	Level Transmitter	Level Transmitter	Level Guage and Low Level Alarm	Local Level Indicator and Low Alarm	Level Switch	Level Switch	Level Switch	Level Switch	Magnetic Liquid Level Guage. DWG HB086601
B. What kind of high level alarm system(s) will be installed on the tank(s)?	DCS Will Provide High Alarm	DCS Will Provide High Alarm	DCS Will Provide High Alarm	Not Applicable	Alarm Will Be In Mark V. GE Console I	Alarm Will Be In Mark V. GE Console I	Alarm Will Be In Mark V. GE Console I	Not Applicable	Magnetic Liquid Level Alarm. DWG HB086601
C. Where will the light and audible alarm be located?	CCR	CCR	CCR	Local Panel	CCR	CCR	CCR	Not Applicable	Not Applicable
D. At what height from the bottom of the tank will the high level alarm be activated?	Per Design	Per Design	Per Design	Per Design	See Device List	See Device List	See Device List	Per Design	Per Design
IV. Small, Medium, and Worst Case Discharge Scenarios									
A. Type of Failure	Human Error (overfill) during Truck Off-loading, Rupture, Joint or Hose Leakage	Human Error (overfill) during Truck Off-loading, Rupture, Joint or Hose Leakage	Human Error (overfill) during Truck Off-loading, Rupture, Joint or Hose Leakage	Human Error (overfill) during Truck Off-loading, Rupture, Joint or Hose Leakage	Human Error (overfill) during Truck Off-loading, Rupture, Joint or Hose Leakage	Human Error (overfill) during Truck Off-loading, Rupture, Joint or Hose Leakage	Human Error (overfill) during Truck Off-loading, Rupture, Joint or Hose Leakage	Human Error (overfill) Rupture, Joint Failure	Oil reservoir Failure, Flange Leak
B. Rate of Flow	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture
C. Containment of Release/ Flow Direction [1]	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)
D. Discharge Scenario	Small Discharge	Small Discharge	Small Discharge	Small Discharge	Medium Discharge	Medium Discharge	Medium Discharge	Small Discharge	Medium Discharge
V. Miscellaneous									
A. What year was the tank Constructed?	2001	2001	2001	2001	2001	2001	2001	2001	2001
B. What type of tank (and associated roof)?	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
C. Refabricated tank? (if yes, year in parenthesis)	No ( )	No ( )	No ( )	No ( )	No ( )	No ( )	No ( )	No ( )	No ( )
D. Failure/ Cause	None	None	None	None	None	None	None	None	None

[1] In the event that secondary containment (including dikes, station walls, curbing or floor drainage to the concrete sump preceeding the oil/water separator) is breached, damaged, or otherwise rendered ineffective, potential small, medium, and worst case discharges would either travel in a southerly direction towards the Piscatuqua River, enter the yard drainage system which discharges to the wetlands or be contained by adjacent structures and/or the general contour of the ground surface. Inferred flow directions are described in Section III 1.c.

Newington Energy, LLC

Petroleum Aboveground Storage Tanks (ASTs)

Item Number	10	11	12	13	14	15	16	17	18
Description	**Station Service Transformer B**	**Auxiliary Transformer C**	**Auxiliary Transformer D**	**Auxiliary Transformer E**	**Auxiliary Transformer F**	**Auxiliary Transformer (east of Tank 14)**	**Unit 1 Generator Step-up Transformer**	**Unit 2 Generator Step-up Transformer**	**Steam Turbine Generator Step-up Transformer**
I. Tank Information									
A. Tanks									
Tank Equipment No.	1EM-TF-B	1EM-TF-C	1EM-TF-D	1EM-TF-E	1EM-TF-F	1EM-TF-G	1EY-TF-A	1EY-TF-B	1EY-TF-C
A. Capacity in Gallons (net working/nominal)	2215 / 2215	603 / 603	603 / 603	603 / 603	603 / 603	570/570	15,852 / 15,852	15,852 / 15,852	17,120 / 17,120
B. Horizontal or Vertical Tank?	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical
C. Shop-fabricated or Field-erected?	Shop	Shop	Shop	Shop	Shop	Shop	Shop	Shop	Shop
D. Tank diameter	NA	NA	NA	NA	NA	NA	NA	NA	NA
E. Tank height/length	61.5"W x 100"L x 115"H	34"W x 67"L x 84"H	34"W x 67"L x 84"H	34"W x 67"L x 84"H	34"W x 67"L x 84"H	33"W x 69"L x 81"H	133"W x 267"L x 183"H	133"W x 267"L x 183"H	136"W x 270"L x 179"H
F. Product to be stored	Transformer Oil	Transformer Oil	Transformer Oil	Transformer Oil	Transformer Oil	Transformer Oil	Transformer Oil	Transformer Oil	Transformer Oil
G. Tank Manufacturer	Asea Brown Broveri	Cooper	Cooper	Cooper	Cooper	Cooper	Hyundai	Hyundai	Hyundai
H. Foundation Type	Mat	Mat	Mat	Mat	Mat	Mat	Mat	Mat	Mat
I. Is proposed tank double walled?	No	No	No	No	No	No	No	No	No
J. Is proposed tank fire protected iaw UL 2085?	No	No	No	No	No	No	No	No	No
K. Is proposed tank in contact with the soil?	No	No	No	No	No	No	No	No	No
L. Will proposed tank be installed in an underground vault?	No	No	No	No	No	No	No	No	No
II. Secondary Containment									
A. Type of Secondary Containment (e.g. dike, berm, dike tank, double-walled tank, remote impoundment, etc)	Concrete	Concrete	Concrete	Concrete	Concrete	Concrete	Concrete	Concrete	Concrete
B. Will tank be located inside a building?	No	No	No	No	No	No	No	No	No
C. What is the volume of secondary containment? (In gallons)	11,700	1,150	1,150	1,150	1,150	1,150	35,000	35,000	49,000
D. Is secondary containment protected from rain/snowfall? No or Yes. If so, how?	No	No	No	No	No	No	No	No	No
E. How will accumulated stormwater be handled?	Routine Inspection and Drainage	Routine Inspection and Drainage	Routine Inspection and Drainage	Routine Inspection and Drainage	Routine Inspection and Drainage	Routine Inspection and Drainage	Routine Inspection and Drainage	Routine Inspection and Drainage	Routine Inspection and Drainage
III. Overfill Protection									
A. What kind of gauge(s) will be installed on the tank system(s)?	Magnetic Liquid Level Guage. DWG HB086601	Magnetic Liquid Level Indication per DWG 4241200B0894	Magnetic Liquid Level Indication per DWG 4241200B0894	Magnetic Liquid Level Indication per DWG 4241200B0894	Magnetic Liquid Level Indication per DWG 4241200B0894	Magnetic Liquid Level Indication per DWG 4241200B0894	Oil Level Indicator Per TL0739-AO1	Oil Level Indicator Per TL0739-AO1	Oil Level Indicator Per TL0740-AO1
B. What kind of high level alarm system(s) will be installed on the tank(s)?	Magnetic Liquid Level Alarm. DWG HB086601	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
C. Where will the light and audible alarm be located?	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
D. At what height from the bottom of the tank will the high level alarm be activated?	Per Design	Per Design	Per Design	Per Design	Per Design	Per Design	Per Design	Per Design	Per Design
IV. Small, Medium, and Worst Case Discharge Scenarios									
A. Type of Failure	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak
B. Rate of Flow	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture
C. Containment of Release/ Flow Direction [1]	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)	See containment (above)
D. Discharge Scenario	Medium Discharge	Small Discharge	Small Discharge	Small Discharge	Small Discharge	Small Discharge	Medium Discharge	Medium Discharge	Medium Discharge
V. Miscellaneous									
A. What year was the tank Constructed?	2001	2001	2001	2001	2001	2001	2001	2001	2001
B. What type of tank (and associated roof)?	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
C. Refabricated tank? (if yes, year in parenthesis)	No ( )	No ( )	No ( )	No ( )	No ( )	No ( )	No ( )	No ( )	No ( )
D. Failure/ Cause	None	None	None	None	None	None	None	None	None

Newington Energy, LLC

Petroleum Aboveground Storage Tanks (ASTs)

Item Number	19	20	21	22
Description	**Isolation Transformer**	**Isolation Transformer SPARE**	**LSD Fuel Oil Tank**	**River Intake Transfer**
I. Tank Information				
A. Tanks				
Tank Equipment No.	1GT-TRB-1001	NO Tag		
A. Capacity in Gallons (net working/nominal)	925	925	939,451/1,015,162	295
B. Horizontal or Vertical Tank?	Vertical	Vertical	Vertical	Vertical
C. Shop-fabricated or Field-erected?	Shop	Shop	Field	Shop
D. Tank diameter	NA	NA	ID 66'.0"	
E. Tank height/length	35"W x 75"L x 90"H	35"W x 75"L x 90"H	66'.0" W x 39'.8"H	
F. Product to be stored	Transformer Oil	Transformer Oil	Low Sulfur Diesel Fuel	Transformer Oil
G. Tank Manufacturer	Fortune Electric	Fortune Electric	Matrix	Cooper
H. Foundation Type	Structural Steel	Structural Steel	Ringwall	Mat
I. Is proposed tank double walled?	No	No	Yes	No
J. Is proposed tank fire protected iaw UL 2085?	No	No	Yes	No
K. Is proposed tank in contact with the soil?	No	No	Yes	No
L. Will proposed tank be installed in an underground vault?	No	No	No	No
II. Secondary Containment				
A. Type of Secondary Containment (e.g. dike, berm, dike tank, double-walled tank, remote impoundment, etc)	Concrete	Concrete	Dike Tank	Concrete
B. Will tank be located inside a building?	No	No	No	No
C. What is the volume of secondary containment? (In gallons)	22,500	22,500	1,118,912	TBD
D. Is secondary containment protected from rain/snowfall? No or Yes. If so, how?	No	No	No	No
E. How will accumulated stormwater be handled?	Routine Inspection and Drainage	Routine Inspection and Drainage	Collection sump with manual drain to Stormwater system or oily water seperator.	Routine Inspection and Drainage
III. Overfill Protection				
A. What kind of gauge(s) will be installed on the tank system(s)?	Oil Level Guage Per 13-8727	Oil Level Guage Per 13-8727	See ICP Section III 1.c.	
B. What kind of high level alarm system(s) will be installed on the tank(s)?	Not Applicable	Not Applicable	See ICP Section III 1.c.	
C. Where will the light and audible alarm be located?	Not Applicable	Not Applicable	Power plant operator control booth	
D. At what height from the bottom of the tank will the high level alarm be activated?	Per Design	Per Design	See Drawing 3 in ICP	
IV. Small, Medium, and Worst Case Discharge Scenarios				
A. Type of Failure	Oil reservoir Failure, Flange Leak	Oil reservoir Failure, Flange Leak	Human Error (overfill) during pipeline delivery, truck off-loading, Rupture, Joint or Hose Leakage	
B. Rate of Flow	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture	Varies from minor leaks to Instantaneous rupture
C. Containment of Release/ Flow Direction [1]	See containment (above)	See containment (above)	See containment (above)	See containment (above)
D. Discharge Scenario	Small Discharge	Small Discharge	Worst Case Discharge	Small Discharge
V. Miscellaneous				
A. What year was the tank Constructed?	2001	2001	2001	2001
B. What type of tank (and associated roof)?	Horizontal	Horizontal	Fixed w/ Floating Suction	Horizontal
C. Refabricated tank? (if yes, year in parenthesis)	No ( )	No ( )	No ( )	No ( )
D. Failure/ Cause	None	None	None	None

Appendix E

Hazardous Chemical Delivery Procedures

Operating Procedure

Hazardous Chemical Deliveries and Transfers

Prepared By: *Operations Manager*	**Name: Chad Harrison**	Date: 10-31-07
Reviewed By: *EHS Manager*	**Name: David Argyros**	Date: 10-31-07
Approved By: *Facility Manager*	**Name: Thomas Fallon**	Date: 10-31-07

1.0 - PURPOSE

This Operating Procedure describes the steps and associated information required to safely perform Hazardous Chemical Unloading under normal conditions.

2.0 - SYSTEM DESCRIPTION

2.1 - General

This procedure interacts with many systems.

93% Sulfuric Acid and 50% Sodium Hydroxide are stored in 6000 gallon bulk tanks in the demineralizer building. Acid and Caustic are used during Demineralizer regenerations. Acid is also used for pH control in the cooling tower.

15% Sodium Hypochlorite (Bleach) is used for Bio-Control in the Cooling Tower. It is delivered in bulk by tank truck to our 5000-gallon bulk tank. It is necessary to receive partial deliveries of Sodium Hypochlorite because the product degrades over time.

Anhydrous Ammonia is used in the HRSG's Selective Catalytic Reduction System. The site typically uses "Met Grade" or Metallurgical Grade Anhydrous Ammonia. Following a full tank clean out the site will refill with Commercial Grade Ammonia to ensure a protective layer of water is present. Consult with the Ops Manager if there are questions. There are two 2000-gallon (water volume) tanks; each is completely separate from the other. Ammonia deliveries are received in Bulk from a tank truck.

GE Betz provides BL5400 Scale Inhibitor "DeposiTrol" for use in the cooling tower. Totes are used with two 100% pumps for delivery. When a tote is low it gets topped off by bringing another tote to the area with the forklift and raising it in the air to allow the product to gravity flow into the tank being topped off.

GE Betz provides HP3100 Phosphate "OptiSperse" for use in the HRSG steam and water cycle. Totes are used with different pumps for delivery to either the HP or IP Drums. When a tote is low it gets topped off by bringing another tote to the area with the forklift, and raising it in the air to allow the product to gravity flow into the tank being topped off.

GE Betz provides CT5607 Oxygen Scavenger "CORTROL" for use in the HRSG steam and water cycle. Totes are used with two pumps for delivery to the condensate system. When a tote is low it gets topped off by bringing another tote to the area with the forklift; and raising it in the air to allow the product to gravity flow into the tank being topped off.

GE Betz provides NA1321 Aqua Ammonia "SteamMate" for use in the HRSG steam and water cycle. Totes are used with two pumps for delivery to the condensate system. When a tote is low it gets topped off by bringing another tote to the area with the forklift, and raising it in the air to allow the product to gravity flow into the tank being topped off.

GE Betz provides Sodium BiSulfite DT1404 “Spectrus” for use as a chlorine scavenger. It is injected into the raw water being fed to the demineralizer trains.

GE Betz provides Sulfite called CORTROL IS100 as an Oxygen Scavenger for the auxiliary boiler. It comes in a barrel as a powder and is mixed as needed in the auxiliary boiler chemical tank.

GE Betz provides Phosphate called Optiguard MCP600 for the auxiliary boiler. It comes in jugs as a liquid and is mixed as needed in the auxiliary boiler chemical tank.

GE Betz provides Corrshield MD4100 for use as a corrosion inhibitor in the closed cooling water system. The primary ingredients are Sodium Molybdate and Sodium Nitrite.

3.0 – REFERENCES

3.1 - Reference Documents

1.1.1	GE Global O&M Services Environment, Health and Safety Manual	
1.1.2	MSDS – 15% Sodium Hypochlorite	
1.1.3	MSDS – 93 % Sulfuric Acid	
1.1.4	MSDS – Metallurgical and Commercial Grade Anhydrous Ammonia	
1.1.5	MSDS –Scale Inhibitor GE Betz BL5400	
1.1.6	MSDS –HRSG Phosphate GE Betz HP3100	
1.1.7	MSDS –HRSG Oxygen Scavenger GE Betz OS5607	
1.1.8	MSDS – HRSG Aqua Ammonia GE Betz NA1321	
1.1.9	MSDS – 50% Sodium Hydroxide (Caustic)	
1.1.10	Foster Wheeler Selective Catalytic Reduction System	42702-24501-874-1
1.1.11	Wahlco Anhydrous Ammonia Storage System O&M Manual	42702-24707-28-1

3.2 - Reference Drawings

1.1.12	Chemical Injection System P&ID	1-PD-4-CI.0-1 to CI.2-2
1.1.13	Demineralized Water System	1-PD-4-DW.0-1

4.0 - SPECIAL TOOLS/EQUIPMENT

The following tools and equipment should be staged prior to performing this operating procedure:

- Personal Protective Equipment will be covered in detail in each chemical specific procedure.
- Copy of Operating Procedure
- Flashlight (if applicable)
- Radio

5.0 – GENERAL NOTES

Notice

Actions to be taken by the operator are printed as **CAPITALIZED AND BOLD**.

Automatic actions taken by the control system are printed as ***bold and italic***.

5.1 - Safety Symbol Legend

In the Operating Instructions the following standard format is used:

Warning

Commands attention to an operating procedure, practice, condition or statement, which, if not strictly observed, could result in personal injury or death.

Caution

Commands attention to an operating procedure, practice, condition or statement, which, if not strictly observed, could result in damage to, or destruction of equipment.

Notice

Commands attention to an essential operating or maintenance procedure, condition or statement that must be highlighted.

6.0 - GENERAL PRECAUTIONS

Definition

Bulk Delivery – A delivery of hazardous material in a container (including a transport vehicle or freight container) with an internal volume greater than119 gallons of liquid, greater than 882 pounds of solid, or a water capacity greater than 1000 pounds for gas.

Caution

Particular attention should be given to normal operating conditions of the system, its equipment, and components to detect variations from their normal conditions and function. **Abnormal conditions, alarms or malfunctions are to be investigated and corrected as soon as possible**.

Caution

All shipments of hazardous materials must be properly labeled in accordance with government rules. An MSDS and the appropriate shipping papers must accompany all shipments of hazardous materials.

Caution

Cell Phones shall not be used in delivery areas.

Caution

Verify the hazardous material has been approved for use at this facility via the site's material approval process.

Caution

Verify the content and quantity of the hazardous materials listed on the shipping paper match what is being delivered.

Caution

Verify the integrity of the vehicles transporting hazardous materials as leaking vehicles will not be permitted on site.

Warning

During tote transfer operations ensure that two people have verified the labels on both totes. The label on the tote used for topping off must match the label on the tote that is in place. No exceptions without Operations Manager's Approval.

DELIVERY PROCEDURES

7.1 –Sodium Hypochlorite (NaOCl Bleach) Bulk Delivery

Table 1 Sodium Hypochlorite Delivery Prerequisites

Initials		STEP
		REVIEW the Sodium Hypochlorite MSDS **Record Delivery Date**: _____
		Bulk Delivery Drivers must check in at the Control Room upon arrival at the facility. The facility escort shall verify that the tank has the necessary capacity to receive the shipment being delivered. If for any reason a clear determination of the tank level cannot be made, the shipment **MUST NOT** be accepted.
Initials #1	Initials #2	**REVIEW** the "**Bill of Lading**" and "**Certificate of Analysis**" to ensure the proper chemical is delivered. This requires two separate signatures for review. **The product transfer is not permitted to take place without two sets of initials.**
		Inspect use portion of system for: • Calibration column fill valves are closed. • Piping is secure/intact and not leaking. • Containment (if applicable) is clean and free of contaminants, water or debris. • Doors or exhaust fans are open to allow for proper ventilation.
		Inspect receiving tank for: • No water/debris in secondary containment • Tank/piping integrity - No visible leaks or signs of deterioration.
		VERIFY Proper operation of applicable safety showers/eyewash stations.
		VERIFY Spill kit is available and has applicable supplies: • Speedi-dry or similar • Lime or similar neutralizer • Squeegee • 5 gal bucket for hose breaking • Shovel • Sorbent materials

Table 2 Required PPE

Initials	STEP
	Acid Suit, PVC Gloves, Acid Resistant Boots, Face Shield with Safety Glasses and Hard Hat.

Table 3 Sodium Hypochlorite Delivery

Initials	STEP
	ESTABLISH communications with the control room
	DIRECT the tank truck to the unloading station and position for off-loading. The vehicle hand break must be set and the wheels chocked. The truck engine shall be turned off during the unloading unless the use of the engine is required to operate the transfer pump.
	VERIFY Proper PPE worn by driver and any other escorts as described in **table 2**.
	BARRICADE the delivery area. No work shall be performed near the unloading area during transfer.
	Inspect receiving tank for: • Capacity • No water/debris in secondary containment • Tank/piping integrity - No visible leaks or signs of deterioration.
	Before connecting the delivery lines to the unloading truck, **INSPECT** for kinks, cuts, abrasions, and general wear.
	INSPECT Delivery line fittings for wear and integrity of seal. Ensure that fittings are appropriate for the material to be pumped.
	DISCUSS with driver how to shutdown the unloading pump in the event of an emergency.
	Place a clean dry 5 gallon plastic bucket under the off-loading connection.
	Open unloading cap and instruct driver to connect the hose from the tanker to the fill line.
	After the delivery lines are connected and secured, **VERIFY** that all cam locks are tied down, all connections shall be inspected.
	Before the unloading pump is started, **OPEN** the delivery valves and check connections for leakage. Close valves and realign connections as necessary until there are no leaks.

	Step clear of the barricade and **INFORM** the control room that unloading is about to begin.
	INSTRUCT Driver to begin unloading. Monitor the actions of the driver and assist only in case of an emergency. Facility escort must be present at all times.
	During the unloading periodically: • Check the delivery vehicle for leaks • Check for leaks in the unloading hoses and connections, pumps • Check for leaks in the receiving tank/tote • Check for leaks in the use portion of the system by walking through the area and visually checking pumps, piping, valves, Cal columns, dikes etc.
	After the product has been transferred, **VERIFY** that the delivery valves are shut and the unloading hose is purged to remove all liquids.
	SHUT delivery valves, and record final level: _____
	INSTRUCT Driver to disconnect delivery hose; any drips or residual must be directed to containment or drip pans.
	When the driver is finished storing the hose, PPE may be removed.
	REMOVE Wheel chocks.
	NOTIFY the Control Room that the chemical delivery is complete.
	SIGN the shipping paperwork and release the truck.
	REMOVE and STORE barricade. Clean up any danger tape that was used.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced."
	Receiving paperwork will be delivered to the Ops Manager. This includes the original procedure with initials for each step. Any problems should be noted on the procedure, i.e. “no wheel chocks on site- new ones are needed”

7.2 – Sulfuric Acid (H_2SO_4) Bulk Delivery

Table 1 Sulfuric Acid Delivery Prerequisites

Initials		STEP
		REVIEW the Sulfuric Acid MSDS **Record Delivery Date**: _____
		Bulk Delivery Drivers must check in at the Control Room upon arrival at the facility. The facility escort shall verify that the tank has the necessary capacity to receive the shipment being delivered. If for any reason a clear determination of the tank level cannot be made, the shipment **MUST NOT** be accepted.
		Inspect use portion of system for: • Calibration column fill valves are closed. • Piping is secure/intact and not leaking. • Containment (if applicable) is clean and free of contaminants, water or debris. • Doors or exhaust fans are open to allow for proper ventilation.
		Inspect receiving tank for: • No water/debris in secondary containment • Tank/piping integrity - No visible leaks or signs of deterioration.
Initials #1	Initials #2	**REVIEW** the "**Bill of Lading**" and "**Certificate of Analysis**" to ensure the proper chemical is delivered. (**93% Sulfuric Acid**). This requires two separate signatures for review. **The product transfer is not permitted to take place without two sets of initials.**
		VERIFY Proper operation of applicable safety showers/eyewash stations. Show all personnel involved the location of said safety showers/eyewash stations. Keep overhead door closest to eye wash open and ensure path of travel is free from obstructions.
		VERIFY that (If using plant air to pressurize tank to off-load) you free blow airline for 30 seconds to remove any water or oil. Do not use plant air without consulting with the Operations Manager. If plant air does not use a proper regulator over-pressure of the truck could occur.
		Verify that the pump supplied by the vendor operates safely and is good repair and that the driver knows how to operate the pump. **Note:** The driver may not use a pump and might use pressurized air instead supplied from the Truck.
		VERIFY Spill kit is available and has applicable supplies: • Speedi-dry or similar

	• Lime or similar neutralizer • Squeegee • 5 gal bucket for hose breaking • Shovel • Sorbent materials

Table 2 Required PPE

Initials	STEP
	Acid Suit, PVC Gloves, Acid Resistant Boots, Face Shield with Safety Glasses and Hard Hat.

Table 3 Sulfuric Acid Delivery

Initials	STEP
	ESTABLISH communications with the control room
	DIRECT the tank truck to the unloading station and position for off-loading. The vehicle hand break must be set and the wheels chocked. The truck engine shall be turned off during the unloading unless the use of the engine is required to operate the transfer pump.
	VERIFY Proper PPE worn by driver and any other escorts as described in **Table 2**.
	BARRICADE the delivery area. No work shall be performed near the unloading area during transfer.
	Test high level tank alarm, red light will illuminate (this only tests the circuit, no audible alarm is heard) Check and record initial tank level: _____
	Before connecting the delivery lines to the unloading truck, **INSPECT** for kinks, cuts, abrasions, and general wear.
	INSPECT Delivery line fittings for wear and integrity of seal and compatibility with chemical to be received.
	DISCUSS with driver how to shutdown the unloading pump in the event of an emergency.
	Place a clean dry 5 gallon plastic bucket under the off-loading connection.
	Remove unloading cap and instruct driver to connect the hose from the tanker to the fill line.
	After the delivery lines are connected and secured, **VERIFY** that all cam locks are tied down, all connections shall be inspected.

	Before the unloading pump is started (or tanker is pressurized), **OPEN** the delivery valves and check connections for leakage. If a leak occurs, close valves and realign connections as necessary until there are no leaks. If leaks persists secure the operation until all leaks are controlled.
	Step clear of the barricade and **INFORM** the control room that unloading is about to begin.
CAUTION	This tank has an oil loop seal; if product is pumped too fast the oil will be pushed out of the loop and into the dike. Check the base of the gray PVC pipe for any leakage; oil leaking out is a sign of pumping too fast.
	INSTRUCT Driver to begin unloading. Monitor the actions of the driver and assist only in case of an emergency. Facility escort must be present at all times.
	During the unloading periodically: • Check the delivery vehicle for leaks • Check for leaks in the unloading hoses and connections, pumps • Check for leaks in the receiving tank/tote • Check for leaks in the use portion of the system by walking through the area and visually checking pumps, piping, valves, Cal columns, dikes etc.
	After the product has been transferred, **VERIFY** that the delivery valves are shut and the unloading hose is purged to remove all liquids.
	SHUT delivery valves, and record final level: _____
	INSTRUCT Driver to disconnect delivery hose, and re-install cap, any drips or residual must be directed to containment or collection device.
	When the driver is finished storing the hose, PPE may be removed.
	REMOVE Wheel chocks**. Re-verify** that all hoses are disconnected and that all valves are closed.
	NOTIFY the Control Room that the chemical delivery is complete and the quantity received.
	SIGN the shipping paperwork and release the truck.
	REMOVE and STORE barricade.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced."
	Receiving paperwork will be delivered to the Ops Manager. This includes the original procedure with initials for each step. Any problems should be noted on the procedure, i.e. “no wheel chocks on site- new ones are needed”

7.3 – Caustic (Sodium Hydroxide (NaOH)) Bulk Delivery

Table 1 Caustic Delivery Prerequisites

Initials		STEP
		REVIEW the 50% Caustic MSDS **Record Delivery Date**: _____
		Bulk Delivery Drivers must check in at the Control Room upon arrival at the facility. The facility escort shall verify that the tank has the necessary capacity to receive the shipment being delivered. If for any reason a clear determination of the tank level cannot be made, the shipment **MUST NOT** be accepted.
		Inspect use portion of system for: • Calibration column fill valves are closed. • Piping is secure/intact and not leaking. • Containment (if applicable) is clean and free of contaminants, water or debris. • Doors or exhaust fans are open to allow for proper ventilation.
		Inspect receiving tank for: • No water/debris in secondary containment • Tank/piping integrity - No visible leaks or signs of deterioration.
Initials #1	Initials #2	**REVIEW** the "**Bill of Lading**" and "**Certificate of Analysis**" to ensure the proper chemical is delivered. (**50% Membrane Sodium Hydroxide** a.k.a. Caustic). This requires two separate signatures for review. **The product transfer is not permitted to take place without two sets of initials.**
		VERIFY Proper operation of applicable safety showers/eyewash stations. Show all personnel involved the location of said safety showers/eyewash stations. Keep overhead door closest to eye wash open and ensure path of travel is free from obstructions.
		VERIFY that if using air to pressurize tank to off-load, free blow airline for 30 seconds to remove any water or oil.
		Verify that the pump supplied by the vendor operates safely and is good repair and that the driver knows how to operate the pump.
		VERIFY Spill kit is available and has applicable supplies: • Speedi-dry or similar • Squeegee • 5 gal bucket for hose breaking • Shovel • Sorbent materials

Table 2 Required PPE

Initials	STEP
	Acid Suit or yellow Tyvek, PVC Gloves, Chemical Resistant Boots, Face Shield with Safety Glasses and Hard Hat.

Table 3 Caustic Delivery

Initials	STEP
	ESTABLISH communications with the control room
	DIRECT the tank truck to the unloading station and position for off-loading. The vehicle hand break must be set and the wheels chocked. The truck engine shall be turned off during the unloading unless the use of the engine is required to operate the transfer pump.
	VERIFY Proper PPE worn by driver and any other escorts as described in **Table 2**.
	BARRICADE the delivery area. No work shall be performed near the unloading area during transfer.
	Test high level tank alarm, red light will illuminate (this only tests the circuit, no audible alarm is heard) Check and record initial tank level: _____
	Before connecting the delivery lines to the unloading truck, **INSPECT** for kinks, cuts, abrasions, and general wear.
	INSPECT Delivery line fittings for wear and integrity of seal and compatibility with chemical to be received.
	DISCUSS with driver how to shutdown the unloading pump in the event of an emergency.
	Place a clean dry 5 gallon plastic bucket under the off-loading connection.
	Remove unloading cap and instruct driver to connect the hose from the tanker to the fill line.
	After the delivery lines are connected and secured, **VERIFY** that all cam locks are tied down, all connections shall be inspected.
	Before the unloading pump is started, **OPEN** the delivery valves and check connections for leakage. If a leak occurs, close valves and realign connections as necessary until there are no leaks. If leaks persists secure the operation until all leaks are controlled.
	Step clear of the barricade and **INFORM** the control room that unloading is about to begin.

	INSTRUCT Driver to begin unloading. Monitor the actions of the driver and assist only in case of an emergency. Facility escort must be present at all times.
	During the unloading periodically: • Check the delivery vehicle for leaks • Check for leaks in the unloading hoses and connections, pumps • Check for leaks in the receiving tank/tote • Check for leaks in the use portion of the system by walking through the area and visually checking pumps, piping, valves, Cal columns, dikes etc.
	After the product has been transferred, **VERIFY** that the delivery valves are shut and the unloading hose is purged to remove all liquids.
	SHUT delivery valves, and record final level: _____
	INSTRUCT Driver to disconnect delivery hose, and re-install cap, any drips or residual must be directed to containment or collection device.
	When the driver is finished storing the hose, PPE may be removed.
	REMOVE Wheel chocks**. Re-verify** that all hoses are disconnected and that all valves are closed.
	NOTIFY the Control Room that the chemical delivery is complete and the quantity received.
	SIGN the shipping paperwork and release the truck.
	REMOVE and STORE barricade. Clean up and danger/caution tape that was used.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced."
	Receiving paperwork will be delivered to the Ops Manager. This includes the original procedure with initials for each step. Any problems should be noted on the procedure, i.e. “no wheel chocks on site- new ones are needed”

7.4 – Anhydrous Ammonia (NH3) Bulk Delivery

Table 1 Anhydrous Ammonia Delivery Prerequisites

Initials		STEP
		REVIEW the Anhydrous Ammonia **MSDS** **Record Delivery Date**: _____
Initials #1	Initials #2	**REVIEW** the **"Bill of Lading"** and "**Certificate of Analysis**" to ensure the proper chemical is delivered. **Metallurgical Grade Ammonia is the Standard Delivery**. If Commercial Grade is delivered make sure the Operations Manager is aware of this prior to unloading. This requires two separate signatures for review. **The product transfer is not permitted to take place without two sets of initials.**
		VERIFY Proper **operation** of applicable safety **showers/eyewash stations.**
		RECORD initial level of each tank prior to commencing transfer. **Tank #1**_____ **Tank #2** _____
		Locate and understand the use of the **manual deluge valve**. This deluge system is for tank cooling in the event of a fire and in selected instances may be used for vapor control.
		ENSURE that proper **PPE is worn** and/or stationed near and upwind of the loading station. PPE will include but not limited to the following: • **Hard hat and safety glasses/face shield** • **Tyvek suit, (overalls and jacket)** • **PVC gloves** • **SCBA located up wind (bottle must be charged and ready for use prior to commencing transfer)**

Table 2 Anhydrous Ammonia Delivery

Initials	STEP
	ESTABLISH communications with control room via site radios or by phone. Phone number to control room is (603)766-1880 ext. 123
	DIRECT the tank truck to the unloading station and position for off-loading. **ENSURE** that truck hand break and wheel-chocks are set prior to connecting any hoses.
	VERIFY driver is wearing proper PPE for the transfer.

	BARRICADE the delivery area.
	INSPECT delivery lines and fittings for kinks, cuts, abrasions, and general wear prior to connecting to the ammonia skid.
	ENSURE that you know how the emergency shut off works for the delivery truck and for the tanks. The tanks emergency shut off is in line with GT 1 train under the HRSG. Operate the air bleed valve to ensure acceptable operation.
	Open unloading cap and instruct driver to connect the hoses from the tanker to the fill line and vapor lines.
	VERIFY proper operation of the emergency shutoff valves on the ammonia skid
	OPEN the delivery valves and check connections for leakage. If there is leakage, secure lineup and correct problem.
	STATION one person at the fill station with the driver and the second person either up wind off the transfer station or by the trip station for the emergency cutoff valves.
	If necessary, secure ammonia vaporizer to allow flow from truck to tank. This is more noticeable in during cold ambient. Communicate status of heater to control room.
	INSTRUCT Driver to begin unloading. Monitor the actions of the driver and assist only in case of an emergency.
	INFORM control room once filling has begun.
	Locally **MONITOR** tank pressure during the unload. If pressure drops to 80 psi re-energize heater. If running on liquid fuel with high flow you may need to secure the filling operation to allow the tank pressure to recover. Keep the Lead Operator informed of local tank status.
	When tank is filled (80%) re-energize heater and ensure pressure begins to climb to normal tank pressure of 100 psi.
	After the product has been transferred, **VERIFY** that the delivery valves are shut and the unloading hose is purged to remove all liquids. Use the bleeder hose to vent the remaining NH3 into the barrel of water. Ensure that when venting is complete that the hose is not left in the barrel, it may suck water up into the tank if there is any valve leakage.
	SHUT delivery valves.
	INSTRUCT Driver to disconnect delivery hose; any drips or residual must be directed to containment or drip pans.
	REPEAT necessary steps as required to fill the second tank
	When the driver is finished storing the hose, PPE may be removed.
	NOTIFY the Control Room that the chemical delivery is complete.

	SIGN the shipping paperwork and release the truck.
	REMOVE and STORE barricade. Clean up any caution or danger tape that was used in barricading the area.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced."
	Receiving paperwork will be delivered to the Ops Manager. This includes the original procedure with initials for each step. Any problems should be noted on the procedure, i.e. “no wheel chocks on site- new ones are needed”

7.4B – Anhydrous Ammonia (NH_3) Tank to Tank Transfer

Table 1 Anhydrous Ammonia Transfer Prerequisites

Initials		STEP
		REVIEW the Anhydrous Ammonia **MSDS** **Record Transfer Date**: _____
Initials #1	Initials #2	There **MUST** be two persons involved with this operation to provide a second check and back-up support in case of emergency. Both individuals must initial in the space provided.
		VERIFY Proper **operation** of applicable safety **showers/eyewash stations.**
		RECORD initial level of each tank prior to commencing transfer. **Tank #1**_____ **Tank #2** _____
		Locate and understand the use of the **manual deluge valve**. This deluge system is for tank cooling in the event of a fire and in selected instances may be used for vapor control.

Table 2 Anhydrous Ammonia Transfer

Initials	STEP
	ESTABLISH communications with control room via site radios or by phone. Phone number to control room is (603)766-1880 ext. 123
	Secure ammonia vaporizer in tank you want to transfer into by pressing Red X on control panel and allow pressure to decrease such that receiving tank is 10 psig lower. Communicate status of heater to control room.
	When pressure is 10-15 psig lower in the tank you want to transfer into, position the excess flow valve on bottom of **BOTH** tanks in the latched **OPEN** state (push towards hydrogen trailers), check for leaks, then slowly open the manual isolation on the crossover pipe and verify flow of product via sound and level indication.
	INFORM control room once transfer has begun.
	Locally **MONITOR** tank pressure during the transfer. If pressure drops to 80 psi re-energize heater. If running on liquid fuel with high flow you may need to secure the transfer operation to allow the tank pressure to recover. Keep the Lead Operator informed of local tank status. Monitor levels and pressures in the respective tanks while being in communication with the CRO and stand-by to stop transfer when instructed by CRO.
	When tanks have reached the equalized or required levels, close the excess flow valve on the tank with the **higher** pressure first, close the manual isolation valve on the ammonia crossover pipe and finally the excess flow valve on the tank that was transferred into.

	Re-energize heater and ensure pressure begins to climb to normal tank pressure of 100 psig.
	After the product has been transferred, **VERIFY** that the excess valves are shut and manual isolation is closed.
	NOTIFY the Control Room that the chemical transfer is complete.
	All paperwork will be delivered to the Ops Manager. This includes the original procedure with initials for each step. Any problems should be noted on the procedure, i.e. "leak detected on threaded connection for pressure gauge"
	If any steps in this procedure need to be changed, please inform the Operations Manager, as soon as possible.

7.5 –Scale Inhibitor GE Betz BL5400 "DeposiTrol" Tote-to-Tote Transfer

Table 1 Scale Inhibitor GE Betz BL5400 Tote-to-Tote Prerequisites

(Using Double Diaphragm Air Powered Pump)

Initials	STEP
	REVIEW the Scale Inhibitor GE Betz Depositrol BL-5400 MSDS **Record Transfer Date**: _____
	VERIFY Proper operation of applicable safety showers/eyewash stations.
	VERIFY Spill kit is available

Table 2 Required PPE

Initials	STEP
	PVC Apron (Yellow), PVC gloves, face shield, Respirator not normally necessary.

Table 3 GE Betz Scale Inhibitor Tote-to-Tote Transfer

Initials		STEP
		ESTABLISH communications with the control room
Initial#1	Initial#2	Use the forklift to pick up a tote and bring it to the cooling tower chemical building. Once the tote is at the chemical building, get out and check the label of the tote on the forklift and make sure it is the same as the label on the tote you will be toping off. It should say Scale Inhibitor GE Betz BL5400 "DeposiTrol". After one person has confirmed the correct tote is in place on the forklift a second person needs to go to the cooling tower chemical building and verify that the tote on the forklift matches the tote that is in place ready to be topped off. Two sets of initials from different people are required in the left hand column. **The product transfer is not permitted to take place without two sets of initials.**
		BARRICADE the delivery area. No work shall be performed near the unloading area during transfer.
		Before filling Chemical Totes, **INSPECT** delivery lines for kinks, cuts, abrasions, and general wear.
		Inspect tank for room for delivery and record level_____
		Obtain and inspect air hose, checking for kinks, cuts, abrasions and that the ends are secure with gaskets that are in good condition. Attach Chicago fittings and use

	retaining clips.
	Raise and position the tote on the forklift so that it is higher than the intake of the pump (less than 1 foot). Set the brake on the forklift and exit.
	Connect transfer hoses. Verify that the hose you are using is labeled for Scale Inhibitor GE Betz Depositrol BL-5400. Tape the "ears" of the hoses (4 locations: 2 on the hose from the full tote to the pump; 2 on the hose from pump to receiving tote.
	Open a vent on the full delivery tote to allow product removal. Open the vent and unscrew the cover on the receiving tote to prevent a build up of pressure.
	Slowly crack the discharge valve from the tote that is raised on the forklift. You should see/feel the liquid fill the hose from the tote to the intake of the pump. Check for leaks. If there are no leaks progress to the next step.
	Next crack open the on/off air valve on the pump, slowly. Watch level in site glass to ensure that product is flowing from the pump to the tote. Check level gauge on the receiving tote is not overfilled.
	Pickup hose from pump to receiving tote when delivery tote is empty or transfer is complete and pump is still running – to empty this section of hose. Make an attempt to empty suction hose if supply tote is not empty by closing suction valve off tote to the pump and raise suction hose to pump.
	Secure from transfer by closing the on/off air valve on the pump after the pump has been allowed to run dry.
	After allowing the line to drain slowly break the cam lock connection on the tote that is on the forklift. Go slow to allow the line to break vacuum and fully drain into the tote that was topped off.
	After draining the hose disconnect it from the tote that was topped off. Stow the hose neatly.
	NOTIFY the Control Room that the chemical delivery is complete.
	REMOVE and STORE barricades. Clean up any caution/danger tape that was used.
	Take the empty (or partially empty) tote to the turbine hall for storage.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced.
	Deliver the Scale Inhibitor GE Betz BL5400 tote transfer procedure checklist to the Operations Manager.

7.6 –Phosphate GE Betz HP3100 "OptiSperse"Tote-to-Tote Transfers

Table 1 Phosphate GE Betz HP3100 Tote-to-Tote Prerequisites

(Using Double Diaphragm Air Powered Pump)

Initials	STEP
	REVIEW the Phosphate GE Betz HP3100 MSDS **Record Transfer Date**: _____ **Caution: this material contains ~5% caustic and is corrosive to skin and eyes**
	Verify that you have the proper totes, GE Betz HP3100 Phosphate.
	VERIFY Proper operation of applicable safety showers/eyewash stations.
	VERIFY Spill kit is available

Table 2 Required PPE

Initials	STEP
	Hard Hat, Acid or Yellow Tyvek Suit, PVC Gloves, face shield with safety glasses.

Table 3 Phosphate GE Betz HP3100 Delivery

Initials		STEP
		ESTABLISH communications with the control room
Initial#1	Initial#2	Use the forklift to pick up a tote and bring it to the phosphate injection chemical building. Once the tote is at the chemical building, get out and check the label of the tote on the forklift and make sure it is the same as the label on the tote you will be toping off. It should say GE Betz HP3100 "OptiSperse". After one person has confirmed the correct tote is in place on the forklift a second person needs to go to the Phosphate chemical building and verify that the tote on the forklift matches the tote that is in place ready to be topped off. Two sets of initials from different people are required in the left hand column. **The product transfer is not permitted to take place without two sets of initials.**
		BARRICADE the delivery area. No work shall be performed near the unloading area during transfer.
		Before filling Chemical Totes, **INSPECT** delivery lines for kinks, cuts, abrasions, and general wear.
		Inspect tank for room for delivery and record level_____

	Obtain and inspect air hose, checking for kinks, cuts, abrasions and that the ends are secure and gaskets are in good condition. Attach "Chicago fittings" and use retaining clips.
	Raise and position the tote on the forklift so that it is higher than the intake of the pump (less than 1 foot). Set the brake on the forklift and exit.
	Connect transfer hoses. Verify that the hose you are using is labeled for Phosphate GE Betz HP3100. Tape the "ears" of the hoses (4 locations – 2 on hose from full tote to pump; 2 on hose from pump to receiving tote. Stainless Steel fittings are to be used.
	Open a vent on the full delivery tote to allow product removal. Open the vent and unscrew the cover on the receiving tote to prevent a build up of pressure.
	Slowly crack the discharge valve from the tote that is raised on the forklift. You should see/feel the liquid fill the hose from the tote to the intake of the pump. Check for leaks. If there are no leaks progress to the next step.
	Next crack open the on/off valve on the pump, slowly. Watch level in site glass to ensure that product is flowing from the pump to the tote. Check level gauge on receiving tote to ensure that the tote is not overfilled.
	Pickup hose from pump to receiving tote when delivery tote is empty or transfer is complete and pump is still running – to empty this section of hose. Make an attempt to empty suction hose if supply tote is not empty by closing suction valve off tote to the pump and raise suction hose to pump.
	Secure from transfer by closing the discharge valve on the tote that is on the forklift.
	After allowing the line to drain slowly break the cam lock connection on the tote that is on the forklift. Go slow to allow line to break vacuum and fully drain into the tote that was topped off.
	After draining the hose disconnect it from the tote that was topped off. Stow the hose neatly.
	NOTIFY the Control Room that the chemical delivery is complete.
	REMOVE and STORE barricades. Clean up any caution/danger tape that was used.
	Take the empty (or partially empty) tote to the turbine hall for storage.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced.
	Deliver the Phosphate GE Betz HP3100 "OptiSperse" tote transfer procedure checklist to the Operations Manager.

7.7 –Oxygen Scavenger GE Betz OS5607 "CORTROL"

Table 1 Oxygen Scavenger GE Betz OS-5607 Tote-to-Tote Prerequisites

(Using Double Diaphragm Air Powered Pump)

Initials	STEP
	REVIEW the Oxygen Scavenger GE Betz "CORTROL" OS-5607 MSDS **Record Transfer Date**: _____
	Verify that you have the proper totes, Oxygen Scavenger GE Betz OS5607
	VERIFY Proper operation of applicable safety showers/eyewash stations.
	VERIFY Spill kit is available

Table 2 Required PPE

Initials	STEP
	Hard Hat, Acid or Yellow Tyvek Suit, PVC Gloves, face shield with safety glasses.

Table 3 Oxygen Scavenger GE Betz OS5607 "CORTROL" Tote-to-Tote transfer

Initials		STEP
		ESTABLISH communications with the control room
Initial#1	Initial#2	Use the forklift to pick up a tote and bring it to the cooling tower chemical building. Once the tote is at the chemical building, get out and check the label of the tote on the forklift and make sure it is the same as the label on the tote you will be toping off. It should say Oxygen Scavenger GE Betz OS5607 "CORTROL". After one person has confirmed the correct tote is in place on the forklift a second person needs to go to the turbine hall and verify that the tote on the forklift matches the tote that is in place ready to be topped off. Two sets of initials from different people are required in the left hand column. **The product transfer is not permitted to take place without two sets of initials.**
		BARRICADE the delivery area. No work shall be performed near the unloading area during transfer.
		Before filling Chemical Totes, **INSPECT** delivery lines for kinks, cuts, abrasions, and general wear.

	Inspect tank for room for delivery and record level_____
	Obtain and inspect air hose, checking for kinks, cuts, abrasions and that the ends are secure and gaskets are in good condition. Attach "Chicago fittings" and use retaining clips.
	Raise and position the tote on the forklift so that it is higher than the intake of the pump (less than 1 foot). Set the brake on the forklift and exit.
	Connect transfer hoses. Verify that the hose you are using is labeled for Cortrol GE Betz OS-5607. Tape the "ears" of the hoses (4 locations – 2 on hose from full tote to pump; 2 on hose from pump to receiving tote. Stainless Steel fittings are to be used.
	Open a vent on the full delivery tote to allow product removal. Open the vent and unscrew the cover on the receiving tote to prevent a build up of pressure.
	Slowly crack the discharge valve from the tote that is raised on the forklift. You should see/feel the liquid fill the hose from the tote to the intake of the pump. Check for leaks. If there are no leaks progress to the next step.
	Next crack open the on/off valve on the pump, slowly. Watch level in site glass to ensure that product is flowing from the pump to the tote. Check level gauge on receiving tote to ensure that the tote is not overfilled.
	Pickup hose from pump to receiving tote when delivery tote is empty or transfer is complete and pump is still running – to empty this section of hose. Make an attempt to empty suction hose if supply tote is not empty by closing suction valve off tote to the pump and raise suction hose to pump.
	Secure from transfer by closing the discharge valve on the tote that is on the forklift.
	After allowing the line to drain slowly break the cam lock connection on the tote that is on the forklift. Go slow to allow line to break vacuum and fully drain into the tote that was topped off.
	After draining the hose disconnect it from the tote that was topped off. Stow the hose neatly.
	NOTIFY the Control Room that the chemical delivery is complete.
	REMOVE and STORE barricades. Clean up any caution/danger tape that was used.
	Take the empty (or partially empty) tote to the turbine hall for storage.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced.
	Deliver the Oxygen Scavenger GE Betz OS5607 CORTROL tote transfer procedure checklist to the Operations Manager.

7.8 –Aqua Ammonia GE Betz NA1321 "SteamMate" Bulk Delivery

Table 1 Aqua Ammonia GE Betz NA1321 "SteamMate" Tote-to-Tote Prerequisites

(Using Double Diaphragm Air Powered Pump)

Initials	STEP
	REVIEW the Aqua Ammonia GE Betz NA1321 "SteamMate" MSDS **Record Transfer Date**: _____
	Verify that you have the proper totes, Aqua Ammonia GE Betz NA1321 "SteamMate"
	VERIFY Proper operation of applicable safety showers/eyewash stations.
	VERIFY Spill kit is available

Table 2 Required PPE

Initials	STEP
	Hard Hat, Acid or Yellow Tyvek Suit, PVC Gloves, face shield with safety glasses.

Table 3 Aqua Ammonia GE Betz NA1321 "SteamMate" Tote-to-Tote Transfer

Initials		STEP
		ESTABLISH communications with the control room
Initial#1	Initial#2	Use the forklift to pick up a tote and bring it to the Turbine Hall by the condensate pumps. Once the tote is at the condensate pumps, get out and check the label of the tote on the forklift and make sure it is the same as the label on the tote you will be toping off. It should say Aqua Ammonia GE Betz NA1321 "SteamMate"" After one person has confirmed the correct tote is in place on the forklift a second person needs to go to the turbine hall and verify that the tote on the forklift matches the tote that is in place ready to be topped off. Two sets of initials from different people are required in the left hand column. **The product transfer is not permitted to take place without two sets of initials.**
		BARRICADE the delivery area. No work shall be performed near the unloading area during transfer.
		Before filling Chemical Totes, **INSPECT** delivery lines for kinks, cuts, abrasions, and general wear.
		Inspect tank for room for delivery and record level_____.
		Obtain and inspect air hose, checking for kinks, cuts and abrasions, and that ends are secure and that gaskets are in good condition. Attach Chicago fittings and use retaining clips.

	Raise and position the tote on the forklift so that it is higher than the intake of the pump (less than 1 foot). Set the brake on the forklift and exit.
	Connect transfer hoses. Verify that the hose you are using is labeled for Aqua Ammonia GE Betz NA1321 "SteamMate". Tape the "Ears" of the hoses (4 locations – 2 on hose from delivery tote to pump, 2 on hose from pump to receiving tote. **No Aluminum fittings can be used**.
	Open a bung on the delivery tote to allow product removal. Open the vent and unscrew the cover on the receiving tote to prevent a build up of pressure.
	Slowly crack the discharge valve from the tote that is raised on the forklift. You should see/feel the liquid fill the hose from the tote to the intake of the pump. Check for leaks. If there are no leaks progress to the next step.
	Next crack open the on/off valve on the pump, slowly. Watch level in site glass to ensure that product is flowing from the pump to the tote. Check level gauge on receiving tote is not overfilled.
	Pickup hose from pump to receiving tote when delivery tote is empty and pump is still running – to empty this section of hose.
	Secure transfer by closing the on/off valve on the pump after the pump has been allowed to run dry.
	After allowing the line to drain slowly break the cam lock connection on the tote that is on the forklift. Go slow to allow line to break vacuum and fully drain into the tote that was topped off.
	After draining the hose disconnect it from the tote that was topped off. Stow the hose neatly.
	NOTIFY the Control Room that the chemical delivery is complete.
	REMOVE and STORE barricades. Clean up any caution/danger tape that was used.
	Take the empty (or partially empty) tote to the turbine hall for storage.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced.
	Deliver the Aqua Ammonia GE Betz NA1321 "SteamMate" tote transfer procedure checklist to the Operations Manager.

7.9 – Sodium Bisulfite GE Betz DT1404 "Spectrus"

Table 1 Sodium Bisulfite Transfer Prerequisites

Initials	Step
	REVIEW the Sodium Bisulfite GE Betz DT1404 "Spectrus"MSDS **Record Transfer Date**: _____
	VERIFY Proper operation of applicable safety showers/eyewash stations.
	VERIFY Spill kit is available and has applicable supplies: Speedi-dry or similar Squeegee Shovel Sorbent materials **WARNING:** **If spilled dilute with water, note that it will generate Sulfur Dioxide fumes when water is applied.**

Table 2 Required PPE

Initials	Step
	Apron, PVC/Nitrile Gloves, Full Face Respirator with Combo Cartridges and Hard Hat.

Table 3 Sodium Bisulfite Dispensing

Initials		Step
		ESTABLISH communications with the control room
Initial #1	Initial #2	Bring the drum you are transferring from to the area next to the mixing tank. **Verify the label says Sodium Bisulfite GE Betz DT1404 "Spectrus".** After you have done this have a second person double-check the label. Two sets of initials are required to continue with the transfer.
		Don your PPE and examine the tank for leaks or obvious problems. Turn the mix off. If possible open the doors and turn on fans for added ventilation.

	If the tank is empty, then add water to the mark on the right hand scale that says “E”(w). This stands for empty-water. If the tank is Partially full, and is sitting at the low cutoff switch, then water is added by the left hand scale, and should be filled to the mark that says “PF-W”. This stands for partially full-water.
	If using a new barrel you will need to drop the transfer pump into the new barrel. Ensure the gland is tight to prevent excess fumes from escaping.
	Place the pump discharge hose into the tank. Keep the cover closed as much as possible to prevent excess fumes from escaping.
	Ensure the pump is off, and then plug it in.
	Transfer product into the tank and fill to either the mark on the left “PF-S” if the tank level was at the low cutoff prior top adding water, or to the right hand scale marked “E-S”if the tank was empty when you added water. These stand for Partially Full-Sodium Bisulfate or Empty-Sodium Bilsulfite.
	When finished transferring you can leave the barrel in place with the hose neatly coiled on top. Turn on the mixer for a while to mix the tank.
	NOTIFY the Control Room that the chemical delivery is complete.
	PPE may be removed when the hose and pump are stowed.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced."
	The Sodium Bisulfite GE Betz DT1404 “Spectrus” transfer checklist will be delivered to the Operations Manager.

7.10 –GE Betz Optiguard MCP600 (Phosphate) and CORTROL IS100 (Sulfite for Oxygen Scavenging)

Table 1 GE Betz Optiguard MCP600 and CORTROL IS100 Transfer Prerequisites

Initials	Step
	REVIEW the Optiguard MCP600 MSDS if transferring Optiguard MCP600 **Record Transfer Date**: _____
	REVIEW the CORTROL IS100 MSDS if transferring CORTROL IS100
	VERIFY Proper level in the portable eyewash station.
	Be Aware that if you have a spill in the auxiliary boiler it will drain to the blowdown sump.

Table 2 Required PPE

Initials	Step
	Apron, PVC/Nitrile Gloves, Full Face Respirator with Combo Cartridges and Hard Hat are required for transferring the powered Oxygen Scavenger CORTROL IS100. The respirator is not required for transferring phosphate as Optiguard MCP600, however a face-shield is.

Table 3 GE Betz Optiguard MCP600 dispensing

Initials		Step
		ESTABLISH communications with the control room
Initial #1	Initial #2	Verify that you have a jug of Optiguard MCP600 in the area immediately adjacent to the mixing tank. When you have verified the label, initial in the column to the left. Then have a second person verify the label, and have them sign to the left also.

	Don your PPE and examine the tank for leaks or obvious problems. If possible open the doors and turn on fans for added ventilation.
	Add the required amount of Optiguard MCP600 by either pouring the jug directly into the auxiliary boiler chemical tank, or use the labeled measuring container.
	NOTIFY the Control Room that the chemical delivery is complete.
	PPE may be removed when the Chemical containers are closed and stowed.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced."
	The Optiguard MCP600 transfer checklist will be delivered to the Operations Manager.

Table 4 GE Betz CORTROL IS100 dispensing

Initials		Step
		ESTABLISH communications with the control room
Initial #1	Initial #2	Verify that you have a barrel of the powdered Sulfite Oxygen Scavenger CORTROL IS100 in the auxiliary boiler building. When you have verified the label, initial in the column to the left. Then have a second person verify the label, and have them sign to the left also.
		Don your PPE and examine the tank for leaks or obvious problems. If possible open the doors and turn on fans for added ventilation.
		Add the required amount of CORTROL IS100 by using the labeled measuring cup to add the powdered chemical from the barrel to the auxiliary boiler chemical tank.
		NOTIFY the Control Room that the chemical delivery is complete.
		PPE may be removed when the Chemical containers are closed and stowed.
		PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced."
		The CORTROL IS100 transfer checklist will be delivered to the Operations Manager.

7.11 –Anti Foam GE Betz AF3551 "FOAMTROL" Tote-to-Tote Transfer

Table 1 Anti Foam GE Betz AF3551 Tote-to-Tote Prerequisites

Initials	STEP
	REVIEW the Anti Foam AF3551 "FOAMTROL" MSDS **Record Transfer Date**: _____
	VERIFY Proper operation of applicable safety showers/eyewash stations.
	VERIFY Spill kit is available

Table 2 Required PPE

Initials	STEP
	PVC Apron (Yellow), PVC gloves, face shield, Respirator not normally necessary.

Table 3 GE Betz Anti Foam Tote-to-Tote Transfer

Initials		STEP
		ESTABLISH communications with the control room
Initial#1	Initial#2	Use the forklift to pick up a tote and bring it to the cooling tower chemical building. Once the tote is at the chemical building, get out and check the label of the tote on the forklift and make sure it is the same as the label on the tote you will be toping off. It should say GE Betz AF3551 "FOAMTROL". After one person has confirmed the correct tote is in place on the forklift a second person needs to go to the cooling tower chemical building and verify that the tote on the forklift matches the tote that is in place ready to be topped off. Two sets of initials from different people are required in the left hand column. **The product transfer is not permitted to take place without two sets of initials.**
		BARRICADE the delivery area. No work shall be performed near the unloading area during transfer.
		Before filling Chemical Totes, **INSPECT** delivery lines for kinks, cuts, abrasions, and general wear.
		Inspect tank for room for delivery and record level_____
		Ensure that the vent is open on the tote that is on the forklift.

	Raise and position the tote on the forklift so that it is higher than the tote to be filled. Set the brake on the forklift and exit.
	Connect transfer hoses. Verify that the hose you are using is labeled for FoamTrol.
	Slowly crack the discharge valve from the tote that is raised on the forklift. Check for leaks. If there are no leaks progress to the next step.
	Next crack open the fill valve on the tote that is to be filled. Watch level in site glass and ensure that the tote is not overfilled.
	Secure from transfer by closing the discharge valve on the tote that is on the forklift.
	After allowing the line to drain slowly break the cam lock connection on the tote that is on the forklift. Go slow to allow the line to break vacuum and fully drain into the tote that was topped off.
	After draining the hose disconnect it from the tote that was topped off. Stow the hose neatly.
	NOTIFY the Control Room that the chemical delivery is complete.
	REMOVE and STORE barricades. Clean up any caution/danger tape that was used.
	Take the empty (or partially empty) tote to the turbine hall for storage.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced.
	Deliver the Anti Foam GE Betz AF3551 tote transfer procedure checklist to the Operations Manager.

7.12 – GT False Start Drain Tank Transfer to Drum Procedure

Table 1 Low Sulfur Diesel Fuel Transfer to Drum Prerequisites

Initials	Step
	REVIEW the Low Sulfur Diesel Fuel (B-950) MSDS **Record Transfer Date**: _____
	VERIFY proper level in the portable eyewash station on the cart.

Table 2 Required PPE

Initials	Step
	Apron, PVC/Nitrile Gloves, Goggles, and Hard Hat are required for transferring the Low Sulfur Diesel Fuel Oil.
	Have on hand a stack of absorber pads (PIGS) to clean up any possible residual fuel oil.

Table 3 Low Sulfur Diesel Fuel Transferring

Initials	Step
	Ensure there are enough steel 55 gallon **sealed top** drums in the Conex box. **Approx. 25% level in tank = one 55 gallon drum.** Examine the drums for obvious problems.
	Using the drum dolly or forklift with drum-lift attachment, station drums at False Start Drain Tank area on the floor.
	Wheel over the designated False Start Drain Tank double diaphragm pump on the cart to the drain tank location. Ensure you have the suction/discharge hoses, a bung wrench, wrenches, grounding strap, and appropriate labels for the drums.
	Before transferring to drums, **INSPECT** delivery and suction lines for kinks, cuts, abrasions, and general wear.
	Using the grounding strap, attach one end to the drum and the other end to the nearby grounding cable on the floor. **Do not proceed to the next step until the drum has been properly grounded.**
	ESTABLISH communications with the control room

	Remove the sump cover.
	Ensure local air inlet ball valve is closed. Hook up nearby air hose to double-diaphragm pump air inlet fitting. Ensure a pin connection with retainer has been established. Crack open-air supply valve.
	After lining up the suction/discharge hoses, start the pump by cracking open the local air valve at the pump inlet. Verify pumping operation by monitoring the drum content level rise. If there are no leaks progress to the next step.
	Close the pumps inlet air ball valve when drum is full. Ensure all residual in lines are clear before removing. **If it is the last drum, lift up the suction line, start pump again to clear out residual in the suction/discharge lines and pump casing.**
	After residual has been cleared, close the air supply valve at the service air header connection.
	Start pump again to relief pressure in the air hose.
	Close the local air inlet ball valve at the pump.
	NOTIFY the Control Room that the fuel oil transfer is complete.
	Disconnect air hose from pump and store hose.
	Store equipment back on the cart.
	Replace sump cover and secure bolts. *Having the cover in place is to ensure that if a fire occurs in the tank, the vent line flame arrestor is used.*
	Tighten caps on the drums. **Do not proceed until all caps are secure and tight.**
	Using the forklift with drum-lift attachment, place all drums in the Hazmat building. **Label all drums accordingly and record drums in the Hazmat building Log.**
	PPE may be removed when the 55-gallon drums are closed and stowed.
	PPE will be inspected prior to rinsing to determine if it is still in safe/useable condition. If it is safe and useable it will be washed and hung to dry. If it is not safe/useable it will be disposed of properly and replaced.
	Deliver the False Start Drain Tank transfer procedure checklist to the Operations Manager.

8.0 – ALARMS AND EMERGENCY CONDITIONS

8.1 - Alarms

At the DCS, several Chemical System indications and alarms can be monitored. In general at an alarm, the operator has to **REVIEW** the system parameters concerned and **CHECK** possible other system alarms to establish the cause for the alarm. Table 3 lists the alarms and actions to be taken concerning the various Chemical Systems. For the actual settings of the alarm and trip points refer to the following documents;

- Field Instruments and Material List
- The Unit Control Sequence Program
- The Unit Control Specifications

Table 28 Chemical Unloading Alarms and Actions to Be Taken

ALARM DESCRIPTION	ACTIONS	SETPOINT
1CI-LAH-0500 Sodium Hypochlorite Tank High Level **Alarm**	• **Secure** Chemical Unloading	90%
1DW-LAH-0152 Bulk Acid Storage Tank High Level **Alarm**	• **Secure** Chemical Unloading	90%
1DW-LAH-0153 Bulk Caustic Storage Tank High Level **Alarm**	• **Secure** Chemical Unloading	90%
1CI-LAH-1570 & 2570 Anhydrous Ammonia Storage Tank High Level **Alarms**	• **Secure** Chemical Unloading	82%

Filename:	NEL Operating Procedures Haz Chem SystemRev11.doc
Directory:	P:\OPERATIONS MNGR FILES\Ops Documents - Latest Revs
Template:	C:\Documents and Settings\harrisch\Application Data\Microsoft\Templates\Normal.dot
Title:	NEL Operating Procedures
Subject:	Haz. Chem. Delivery
Author:	Procedure Team
Keywords:	
Comments:	
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Appendix F

Worst Case Discharge Planning Volume

Facility: Newington Energy, LLC

Appendix D to Part 112- Determine of a Worst Case Discharge Planning Volume

PART A: WORST CASE DISCHARGE Calculation for Onshore Storage Facilities [1]

Part A of this worksheet is to be completed by the owner or operator of an SPCC-regulated facility (excluding oil production facilities) if the facility meets the criteria as presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm to the environment. If you are the owner or operator of a production facility, please proceed to Part B of this worksheet.

A.1 SINGLE-TANK FACILITIES

For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the oil storage tank. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the oil storage tank, multiply the capacity of the tank by 0.8.

1) FINAL WORST CASE VOLUME:_____GAL (BBLS)
2) Do not proceed further.

A.2 SECONDARY CONTAINMENT – MULTIPLE -TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment? [2]

N (Y/N)

A.2.1 If the answer if yes, the final worst case discharge planning volume equals the *total aboveground oil storage capacity at the facility*.

1) FINAL WORST CASE VOLUME:_____GAL (BBLS)
2) Do not proceed further.

A.2.2 If the answer if no, calculate the total above oil storage capacity of tanks without adequate secondary containment. If *all* above oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER "0" (zero).

0

A.2.3 Calculate the capacity of the largest single aboveground oil storage tanks within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifold together, whichever is greater, PLUS THE VOLUME FROM QUESTION a2(b).

1,118,894 GAL (26,640 BBLS)

FINAL WORST CASE VOLUME: 1,118,894 GAL (26,640 BBLS)

[1] "Storage facilities" represent all facilities subject to this part, excluding oil production facilities

[2] Secondary containment is defined in 40 CFR 112 7 (2) (2) Acceptable methods and structures for containment are also give in 40 CFR 112 7 (c) 1.

[3] All complexes that are jointly regulated by EPA and the USCG must also calculate worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever is greater.

ATTACHMENT E-1
WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES
FOR WORST CASE DISCHARGE

Part 1 Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D): 26,640 (A)

Step (B) Oil Group [1] (Table 2 and section 1.2 of this appendix): 1

Step (C) Operating Area (choose one)…….. [ ] Nearshore/Inland Great Lakes [X] or Rivers and Canals

Step (D) Percentages of Oil (Table 2 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
80	10	10
(D1)	(D2)	(D3)

Step (E1) On-Water Oil Recovery: $\frac{\text{Step (D2) x Step (A)}}{100}$ = 2,664 (E1)

Step (E2) Shoreline Recovery: $\frac{\text{Step (D3) x Step (A)}}{100}$ = 2,664 (E2)

Step (F) Emulsification Factor (Table 3 of this appendix)…….. 1.0 (F)

Step (G) On-Water Oil Recovery Resources Mobilization Factor (Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
0.3	0.4	0.6
(G1)	(G2)	(G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that consume 10 percent or less by volume of the total oil storage capacity of the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

ATTACHMENT E-1 (CONTINUED)
WORKSHEET TO PLAN VOLUME RESPONSE RESOURCES
FOR WORST CASE DISCHARGE

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
799	1,066	1,598
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels)……. 2,664

Step (E2) x Step (F)

Part IV On-Water Response Capacity by Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
1,875	3,750	7,500
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
0	0	0
Part II Tier I - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrels.

Appendix G

Small, Medium, Worst Case Discharge

Required Response Resources for Small, Medium and Worst Case Discharges

NEL Facility
Newington, NH

Small Volume Spill	
Containment Boom	1,000 feet
Means of Deploying and Anchoring from Time of Detection of Spill	1 to 2 hours
Oil Recovery Device Capacity	50 barrels per day (2,100 gallons per day)
Arrive On-Site from Time of Detection of Spill	2 hours
Oil Storage Capacity	100 barrels per day (4,200 gallons per day
Medium Volume Spill	
Containment Boom	4,000 feet
Means of Deploying and Anchoring from time of Detection of Spill	1 to 2 hours
Oil Recovery Device Capacity	429 barrels per day (18,000 gallons per day)
Arrive On-Site from Time of Detection of Spill	6 hours
Oil Storage Capacity	857 barrels per day (36,000 gallons per day)
Worst Case Discharge	
General Requirements	
Portion of Recovery Devices to Operate in Close-to-Shore- in Shallow Water (<6 feet)	20%
On-Shore Oil Storage Volume	850 barrels per day
Sensitive Area Protection Containment Boom	As required
Tier 1	
Containment/Protective Boom	*
OSRO On-Scene with Equipment	6 hours
Response Equipment Should be Mobilized and Enroute to Facility	2 hours
Oil Recovery Device Capacity	255 barrels per day
Oil Storage Capacity	510 barrels per day
Tier 2	
Containment/Protective Boom	*
OSRO On-Scene with Equipment	30 hours
Oil Recovery Device Capacity	425 barrels per day
Oil Storage Capacity	850 barrels per day
Tier 3	
Containment/Protective Boom	*
OSRO On-Scene with Equipment	54 hours
Oil Recovery Device Capability	680 barrels per day
Oil Storage Capacity	1,360 barrels per day

* Containment and protective boom will be made available through the OSRO in sufficient quantities to respond to the worst case discharge tiers.

Appendix H

Emergency Response Equipment

Emergency Response Equipment
Newington Energy

On-site response equipment, including speedi-dry, spill pads, absorbent booms, etc., will be inspected quarterly. The on-site equipment is primarily for one time use. As such, it will not be specifically tested or deployed. Response equipment to be provided by United Oil or Clean Harbors (e.g. skimmers, sea booms, boats) are maintained and tested by those contractors. Contractor response equipment is routinely deployed during normal business activities. As such, a formalized deployment schedule is not available from the referenced response contractors.

Table 1
EPA FRP Required Response Equipment

Equipment	Responsible Entity	Inspection Frequency/Testing	ICP Cross Reference
Skimmers/Pumps			
- Operations Status	OSRO	On-going	3.3.f.3, App. J
- Type, Model, and Year	OSRO	On-going	3.3.f.3, App. J
- Number	OSRO	On-going	3.3.f.3, App. J
- Capacity	OSRO	On-going	3.3.f.3, App. J
- Daily Effective Recovery Rate	OSRO	On-going	3.3.f.3, App. J
- Storage Location	OSRO	On-going	3.3.f.3, App. J
- Date Fuel Last Changed	OSRO	On-going	3.3.f.3, App. J
Boom			
- Operational Status	OSRO	On-going	3.3.f.3, App. J
- Type, Model, and year	OSRO	On-going	3.3.f.3, App. J
- Linear Feet	OSRO	On-going	3.3.f.3, App. J
- Size (Skirt Height)	OSRO	On-going	3.3.f.3, App. J
- Deployment Discussion	OSRO	On-going	3.3.f.3, App. J
- Storage Location	OSRO	On-going	3.3.f.3, App. J
Chemical Countermeasure Agents Stored			
- Date Authorized	NA	NA	NA
- Type of Agent	OSRO/ Newington Energy	On-going/ quarterly	Table 2
- Deployment Equipment Available	OSRO/ Newington Energy	On-going/ quarterly	Table 2
- Volume on-scene	OSRO/ Newington Energy	On-going/ quarterly	Table 2
- Storage Location	OSRO/ Newington Energy	On-going/ quarterly	Table 2
- Mobilization Time	OSRO/ Newington Energy	On-going/ quarterly	Table 2
Sorbents			
- Types of sorbent	Newington Energy	Quarterly	Table 2
- Amount	Newington Energy	Quarterly	Table 2
- Theoretical Sorption Capacity	Newington Energy	Quarterly	Table 2
- Storage Location	Newington Energy	Quarterly	Table 2
Hand Tools			
- Type	OSRO/ Newington Energy	On-going/ quarterly	Table 2
- Purpose	OSRO/ Newington Energy	On-going/ quarterly	Table 2
- Quantity	OSRO/ Newington Energy	On-going/ quarterly	Table 2
- Storage Location	OSRO/ Newington Energy	On-going/ quarterly	Table 2
Communication Equipment			
- Operating frequency	Newington Energy	Daily	3.3.b.2
- Type	Newington Energy	Daily	3.3.b.2
- Operational Status	Newington Energy	Daily	3.3.b.2
- Quantity	Newington Energy	Daily	3.3.b.2
- Storage Location	Newington Energy	Daily	3.3.b.2

Fire Fighting and PPE			
- Type of fire fighting system	Newington Energy	NA	3.3.e.6
- Amount of Foam (stationary)	Newington Energy	Daily	3.3.e.6, Drawing 5
- Amount of Foam (portable)	NA	NA	NA
- Foam to loading racks	Newington Energy	Daily	3.3.e.6, Drawing 5
- Foam to tanks	Newington Energy	Daily	3.3.e.6, Drawing 5
- Number of Fire Hydrants	Newington Energy	NA	3.3.e.6
- Static Pressure	Newington Energy	NA	3.3.e.6
- Wheeled Fire extinguishers	NA	NA	3.3.e.6
- Number of hand fire extinguishers	Newington Energy	Monthly	3.3.e.6, App. H
- SCBAs (number and time)	Newington Energy	Monthly	App. I
- Other fire fighting equipment	Newington Energy	Monthly	3.3.e.6
Boats and Motors			
- Quantity of boats	OSRO	On-going	3.3.f.3, App. J
- Size of boats	OSRO	On-going	3.3.f.3, App. J
- Size/type of motor	OSRO	On-going	3.3.f.3, App. J
- Storage Location	OSRO	On-going	3.3.f.3, App. J
Other			
- Type of Equipment	OSRO	On-going	3.3.f.3, App. J
- Size of Equipment	OSRO	On-going	3.3.f.3, App. J
- Quantity	OSRO	On-going	3.3.f.3, App. J
- Storage Location	OSRO	On-going	3.3.f.3, App. J

Table 2
Spill Supplies onsite at NEL for NEL 1st responders

Location	Type	Quantity	Capacity	Hazards	Inspections
Demin Bldg	Chemical sorbents (Y)	1 bail of 50	25 gal	Sulfuric Acid, Sodium Hydroxide, Sodium Bisilfite	
	Pads on roll (Y)= Yellow	100	50 gal	Sulfuric Acid, Sodium Hydroxide, Sodium Bisilfite	
	Speedi-dri	2 bags		Sulfuric Acid, Sodium Hydroxide, Sodium Bisilfite	
	Squeegee			Sulfuric Acid, Sodium Hydroxide, Sodium Bisilfite	
	Plastic shovel			Sulfuric Acid, Sodium Hydroxide, Sodium Bisilfite	
	Lime (for acid Neut)	1 40 pound bag	n/a	Sulfuric Acid, Sodium Hydroxide, Sodium Bisilfite	
	Vinegar (acetic acid) for Caustic spill	1 gal	n/a	Sulfuric Acid, Sodium Hydroxide, Sodium Bisilfite	
Truck Unloading rack at Fuel Oil	Oil sorbent pads (W or G) White or Gray)	1 bail of 50	25 gal	#2 Oil	
	Sorbent boom	1 pkg of 4	12 gal	#2 Oil	
	Speedi-dri	2 bags	n/a	#2 Oil	
	Squeege			#2 Oil	
Circ Water Chemical Bldg	Chemical sorbents (Y)	1 bail of 50	25 gal	Bleach, Actibrom	
	Pads on roll (Y)= Yellow	100	50 gal	Bleach, Actibrom	
	Speedi-dri	2 bags		Bleach, Actibrom	
	Squeege			Bleach, Actibrom	
	Plastic shovel			Bleach, Actibrom	
Inside door between GT 2 and ST (back side) For Oil	Oil sorbent pads (W or G) White or Gray)	1 bail of 50	25 gal	Fuel Oil, Lube Oil	
	Sorbent boom	1 pkg of 4	12 gal	Fuel Oil, Lube Oil	
	Speedi-dri	2 bags	n/a	Fuel Oil, Lube Oil	
	Squeege			Fuel Oil, Lube Oil	
Inside door between GT 2 and ST (back side) For Chemicals	Chemical sorbents (Y)	1 bail of 50	25 gal	BT3000 Amine Solution, Elimin-Ox (O2 scavenger)	
	Pads on roll (Y)= Yellow	100	50 gal	BT3000 Amine Solution, Elimin-Ox (O2 scavenger)	
	Speedi-dri	2 bags		BT3000 Amine Solution, Elimin-Ox (O2 scavenger)	
	Squeege			BT3000 Amine Solution, Elimin-Ox (O2 scavenger)	
	Plastic shovel			BT3000 Amine Solution, Elimin-Ox (O2 scavenger)	

Lube Oil Skid Area	Oil sorbent pads (W or G) White or Gray)	1 bail of 50	25 gal	Lube Oil	
	Sorbent boom	1 pkg of 4	12 gal	Lube Oil	
	Speedi-dri	2 bags	n/a	Lube Oil	
	Squeege			Lube Oil	
Between GT 1 and 2 Generator End	Oil sorbent pads (W or G) White or Gray)	1 bail of 50	25 gal	Lube Oil and Fuel Oil	
	Sorbent boom	1 pkg of 4	12 gal	Lube Oil and Fuel Oil	
	Speedi-dri	2 bags	n/a	Lube Oil and Fuel Oil	
	Squeege			Lube Oil and Fuel Oil	
Inside door between GT 1 and GT 2 (back side) For Chemicals	Chemical sorbents (Y)	1 bail of 50	25 gal	BT3000 Amine Solution in courtyard	
	Pads on roll (Y)= Yellow	100	50 gal	BT3000 Amine Solution in courtyard	
	Speedi-dri	2 bags		BT3000 Amine Solution in courtyard	
	Squeege			BT3000 Amine Solution in courtyard	
	Plastic shovel			BT3000 Amine Solution in courtyard	
Inside door between GT 1 and GT 2 (back side) For Oil	Oil sorbent pads (W or G) White or Gray)	1 bail of 50	25 gal	Lube Oil and Fuel Oil	
	Sorbent boom	1 pkg of 4	12 gal	Lube Oil and Fuel Oil	
	Speedi-dri	2 bags	n/a	Lube Oil and Fuel Oil	
	Squeege			Lube Oil and Fuel Oil	
River	Oil sorbent pads (W or G) White or Gray)	1 bail of 50	25 gal	Lube Oil and Fuel Oil	
	Sorbent boom	1 pkg of 4	12 gal	Lube Oil and Fuel Oil	
	Speedi-dri	2 bags	n/a	Lube Oil and Fuel Oil	
	Squeege			Lube Oil and Fuel Oil	
	Roll of rope			Lube Oil and Fuel Oil	
	Knife			Lube Oil and Fuel Oil	
	Cinder blocks for anchors			Lube Oil and Fuel Oil	
Warehouse	Additional equipment, surplus and spares				

Appendix I

Personal Protective Equipment

Group	Type
Coveralls	Poly Coated Tyveks
	PVC Acid Suit
Respiratory	60 Min PP SCBA (Total of six (four w/ two backup))
	Full Face w/ Combo Cartridges
	10 Min Scat-Paks - For Escape
Gloves	PVC
	Neoprene
	Nitrile
	Nitrile - Surgical
	Kevlar
	Leather
	Welding
	High Temp
Eye	Safety Glasses
	Chemical Goggles
	Face Shield
Foot	Yellow Disposable Latex HazMat Boots (aka Nuke Boots)
	PVC Over Boots
	Steel toed safety shoes
Ear	Ear Plugs
	Ear Muffs
Electrical	Switch pullers Coat, Coverall and Hood
	00 gloves w/leathers
	Fire Resistant coveralls
Water	Life Jackets
Fall Protection	Full Body Harness
	Retractable Lanyards
	Decelaration Lanyards

Appendix J

OSRO Documentation

42 Longwater Drive
Norwell, MA 02061-9149
781-792-5119
781-792-5938 (facsimile)

INVOICE

REMIT TO: P.O. Box 3442, Boston MA 02241-3442

Sold To: Mr. David Argyros
General Electric Services
Newington Energy
200 Shadduck Way
Newington NH 03801

Job Site: Same

Job Description: Administrative Fees for OPA-90, E/R, Primary, Facility, Inland, River/Canal, OSRO Coverage for the period 7/15/07 to 7/14/08.

Customer: GE0874 Job # NH1576765 **Purchase Order: tba Argyros**

Salesman: Brady

Terms: Net 15 Days Invoice Date: 08/16/07 Invoice # NH0732146

Quantity	Item I.D.	Description	Price	U/M	Amount
1	OPAFEE2	Equipment Deployment PREP Fee	$300	EA	$300
1	OPAFEE6	Annual Federal Response Plan Primary OSRO Facility Listing For Inland, River/Canal OSRO Coverage	$900	EA	$900

Invoice Total $1200

Terms: Net 15 Days from Invoice Date

Bow, NH Service Center — 24 Hr. # (603) 224-6626
#20 Dunklee Road — 24 Hr. # (800) 645-8265
Bow, NH 03304 — Fax # (603) 224-6778

1-800-OIL-TANK (645-8265) 24 Hour Nationwide Emergency Number

Steve Brown, General Manager — EPA / Federal ID #: N/A

Personnel Authorized to release equipment / materials / manpower, etc:

Steve Brown
Joe MacDonald

40-Hour OSHA Trained Personnel:

Supervisor	2
Foreman	5
Field Technician I	3
Equipment Operator	4

Equipment List Item Description	Location	Capacity / Size / Model	# of Units
(1) Marine Support Equipment			
Workboat	Bow	14FT Lund-15HP Honda O/B	1
(2) Motor Vehicles			
Pickup Truck	Bow	F350	4
Pickup Truck	Bow	Chevy	1
Cusco	Bow	Cusco-498	1
Vacuum Truck (Straight)	Bow	447	1
Rack Truck	Bow	w/ Liftgate	1
(3) Pumps and Pressure Equipment			
Double Diaphragm Pump		2” DD	3
Double Diaphragm Pump		3” DD	2
(4) Oil Spill Containment Booms			
Boom	Bow	18” Boom	200’
(5) Environmental Monitoring Equipment			
Explosion meter	Bow	Minigard II	2
HNU	Bow	PI101	2
Passport Exp Meter	Bow	Passport	2
(6) Recovery Equipment			
Portable Storage Tank	Bow	2000 gal. poly	1
(7) Beach or Earth Cleaning and Excavating Equipment			
Bobcat Loader	Bow	753	1
(8) Generators / Compressors / Light Towers			
Light Tower	Bow		2
Generator	Bow	Honda	1

Equipment List Cont. Item Description	Location	Capacity / Size / Model	# of Units
(9) Health and Safety Equipment			
30 Minute Airline	Bow	30 Minute	1
Hip Air Breathing Apparatus	Bow	5 Min. Escape	3
Air Work Mask 30 Min.	Bow	MSA	3
(10) Communications			
2-Way Radio	Bow	Nextel	8
(11) Miscellaneous			
2" Chemical Hose	Bow	Camlock Fittings = 400' plastic, 400' ss	800'
2" Oil	Bow		800
3" Chemical Hose	Bow	Camlock Fittings (stainless)	600'
2" Oil	Bow	Camlock Fittings	600'
4" Oil	Bow	Camlock Fittings (aluminum)	900'

Emergency Response Subcontractors

Cab Services	**Contact:**	**Services Provided:**
Dover, NH		Vacuum Equipment

People and Technology Creating a Better Environment

Bringing Technical and Site Services to North America.

Clean Harbors
ENVIRONMENTAL SERVICES®

Who We

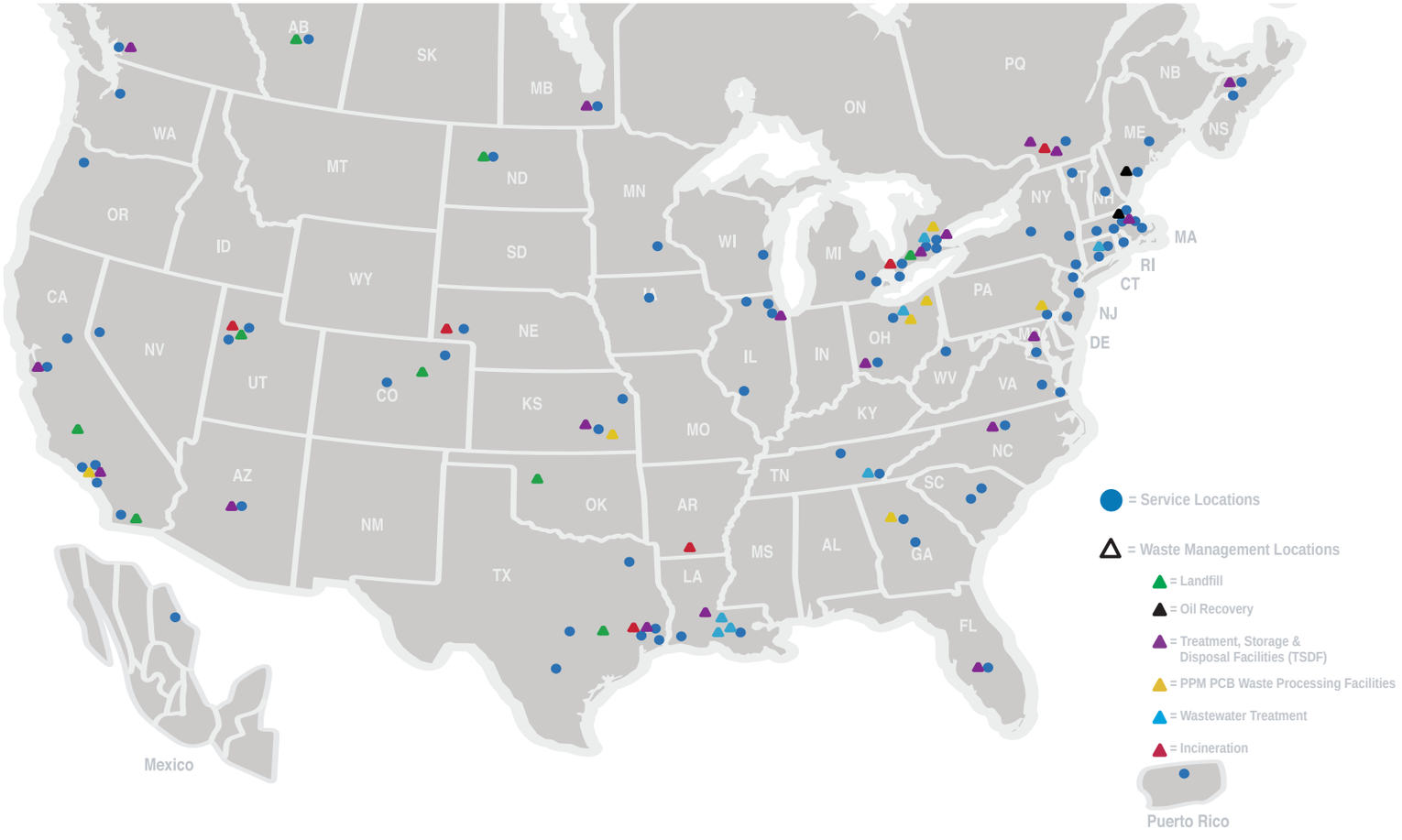
The Confidence of Working with a Leader

Since 1980, Clean Harbors Environmental Services, Inc. has grown to be North America's largest and most trusted provider of environmental services. Offering a wide range of Technical Services, such as transportation and disposal as well as lab chemical packing, along with Site Services, including emergency response and industrial cleaning services, Clean Harbors is an innovative leader, committed to preserving our natural environment and adhering to strict government regulations.

Our clients include a majority of the Fortune 500 companies; numerous utilities, oil, pharmaceutical and chemical companies; the high-tech and biotech industries; and numerous local, state and federal government agencies. While our customers come from different backgrounds and industries, they all share one thing in common: the confidence knowing that their environmental or waste-disposal needs are being managed with the utmost care, timeliness and efficiency.

We invite you to learn more about Clean Harbors. You'll discover a company with the Vision, Services, Responsiveness and Reliability to make a difference in environmental management.

Clean Harbors Has You Covered



Complete Confidence from Beginning to End

Technical Services

Technical Services

Complete Confidence from Beginning to End. At Your Disposal.

Rely on Clean Harbors for the most comprehensive hazardous and non-hazardous waste-disposal services. With over 50 company-owned and operated waste-management facilities in the U.S. and Canada that cover a broad range of disposal technologies, Clean Harbors is your single source for the safe, efficient handling of all waste streams.

Since 1980, Clean Harbors has taken the lead in identifying the most cost-effective, environmentally sound options for waste management. Our numerous recycling, incineration, landfill and treatment facilities bring a complete range of alternatives to our customers.

Our Technical Services product line has been developed specifically for the collection and transporting of all containerized and bulk waste (Transportation and Disposal), as well as the categorization, packaging and removal of laboratory chemicals for disposal (CleanPack®). Through a network of Technical Service Centers, we dispatch our trucks to pick up customers' waste either on a pre-determined schedule or on demand, and then deliver it to one of our nearby Treatment, Storage and Disposal Facilities (TSDF). From these same Technical Service Centers, we can dispatch chemists directly to a customer location for the safe collection of chemical waste for disposal.

Choose Clean Harbors for the best in flexibility, efficiency and rapid service.

Complete Transportation and Disposal Services

Clean Harbors offers a tremendous number of waste stream disposal options. Whether you have an exotic water-reactive waste or simply a paint or oil waste, our established network provides fast, expert service that's unmatched in the industry.

- Incineration
- Landfill
- Fuels Blending
- Lab Chemical Disposal
- Explosives Management
- Wastewater Treatment
- PCB Disposal
- Recycling and Reuse
- Used Oil and Oil Products Recycling

Complete Laboratory Chemical Management Services — CleanPack®

Our CleanPack chemists collect, label and package all quantities of chemicals and hazardous waste for transportation and disposal.

- Laboratory Chemical Packing
- Reactive Material Services
- Laboratory Moves
- On-site Program Management
- Household Hazardous Waste
- CustomPack® Services
- Facility Closures
- Cylinder and Compressed Gas Management

A Proven Record of Reliability

Site Services

Site Services

A Proven Record of Reliability. At Your Service.

Clean Harbors' Site Services is designed to provide customers with highly skilled experts utilizing specialty equipment and resources to perform an array of services at their site or another location. Under the Site Services umbrella, Clean Harbors' Field Services ensures that crews and equipment are dispatched on a scheduled or emergency basis to perform everything from site decontamination and large remediation projects to selective demolition, emergency response, spill cleanup and vacuum services.

Also as part of Clean Harbors' Site Services, our Industrial Services features crews focused on those industrial cleaning and maintenance projects that typically require fast turnaround and may include hydroblasting, liquid/dry vacuuming, sodium bicarbonate blasting, chemical cleaning, dewatering and pressing, and steam cleaning of equipment and systems.

Leaders in the Field — Field Services

Clean Harbors' Field Services supports a wide range of industrial facilities from grain mills to microprocessor chip plants. The core capabilities we bring to customer sites include:

- PCB Management and Disposal
- Site Decontamination
- Product Recovery and Transfer
- Marine Services
- Remediation and Environmental Construction
- Emergency Response
- Vacuum Services
- Tank Cleaning
- Demolition Services

Environmental Quality, Industrial Strength — Industrial Services

The fast turnaround of industrial cleaning and maintenance projects requires the right technologies, experience and care. That's why more and more companies turn to Clean Harbors and our wide range of Industrial Services including:

- Sodium Bicarbonate Blasting
- Chemical Cleaning
- Hydroblasting
- Steam Cleaning
- Dewatering and Pressing
- Vacuum Services
- Material Processing Services
- Container Management

Customizing a Program Right for You

Apollo Onsite Services

Apollo Onsite Services

Customizing an Environmental Program Right for You.

Bringing our expertise and resources right to the customer, Clean Harbors' Apollo Program is the premier on-site solution that serves the dual purpose of not only improving your waste-stream management, but making your entire environmental program safer, more cost-effective and self-sufficient.

Clean Harbors' skilled technicians work on site in tandem with customers to deliver proper waste transportation and disposal, lab chemical packing (CleanPack), industrial cleaning and maintenance, and more. Whether you require a single field technician or a 20-person team of diversified talent, Clean Harbors can design the right program to satisfy your specific needs.

We utilize a hand-in-hand, team approach that leverages our extensive resources and infrastructure, including our Web-enhanced technology and online services.

Apollo Service Offerings

Clean Harbors' exclusive Apollo Program brings the most extensive range of environmental services to your site:

- Trained on-site management and specialty labor resources such as lab pack chemists, environmental technicians, wastewater-treatment operators and incinerator operators
- Waste profiling, coordination, tracking (on-site/off-site), and beneficial reuse analysis, inventory and off-site shipping management
- Efficient waste treatment and processing capabilities to Clean Harbors-owned and operated facilities
- Full-time on-site services including product recovery and transfer; tank cleaning, including confined-space entry; vacuum services; emergency response for oil/chemical spills; hydroblasting and chemical cleaning
- Apollo Teams use Clean Harbors' proprietary software to quickly produce inventory lists, manifests, LDR forms and labels that comply with all local, state, provincial and federal regulations
- Web-enabled systems utilize electronic profiling for multiple vendors and ultimately provide a menu of available reports

Clean Harbors' Vision —

To be the premier provider of environmental services and solutions.

Why Clean Harbors

Always in Compliance. EPA, DOT and Ministry of the Environment regulations are complex, and even a minor infraction can cost you time and money. Clean Harbors provides the expert service and advice to ensure your waste-management program is always up to code, while still keeping an eye on your bottom line.

Reducing Liabilities. All of our disposal facilities uphold rigorous quality assurance programs to meet the highest standards of both internal and external audits. We maintain constant vigilance over all facilities to identify and minimize long-term liabilities. The result: Your exposure to risk is minimized.

Controlling Costs. Short-term disposal savings often impact long-term cleanup costs. At Clean Harbors, we respond to short-term cost pressures while maintaining the integrity of ultimate compliance efficiencies.

All-in-One Service. Regardless of the waste type your company generates, Clean Harbors provides the convenience of single sourcing. From solid wastes and wastewater to simple oils and paints to PCBs and cyanides, we handle it all. And since our operations are completely networked, the entire process is easier, safer and more cost-effective.

Leveraging Technology. Our Internet-based online services provide customers with instant access to key records related to transactions and help us better track shipments from pickup to disposal. You can monitor every aspect of your waste stream and maintain complete process control.

Fast Turnaround. Each week, Clean Harbors crews from service centers across North America perform hundreds of planned jobs ranging from routine confined-space entry for storage tank cleaning, to elaborate cleaning during a plant turnaround. Clean Harbors has the capabilities and resources to complete any size job, quickly and efficiently.

Reduced Risk. We understand that hiring a contractor to work on your site can mean liability exposure. Clean Harbors' training protocols and health and safety procedures are unsurpassed. Our Experience Modification Rates (EMRs), TRIR, and our training programs and overall approach to business keep your plant in compliance with OSHA, while limiting your liability exposure.

Rapid Emergency Response. When time is critical, Clean Harbors is ready to respond swiftly and effectively to any emergency, including spills of all sizes on land or water, chemical, oil, and biohazards, including bloodborne pathogens.

Equipment and Extensive Resources. Whether it's manpower, equipment, supplies, specialized equipment or technology, we will provide a complete solution to your situation with our vast array of resources.

Manpower, Experience and Sound Management. Clean Harbors attracts and employs the finest, most talented people in the industry. Our training standards are second to none, and each job is performed using strict protocols and health and safety procedures. You're always in good hands.

For Technical Services

(Transportation and Disposal Services or CleanPack), call 800.444.4244

For Site Services

(Field Services or Industrial Services), call 800.645.8265

Or visit the Web at

www.cleanharbors.com

Corporate Headquarters
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
781.792.5000
800.282.0058

Clean Harbors ENVIRONMENTAL SERVICES®

Clean Harbors

Setting new standards in environmental and waste management. Now and always.

When it comes to experience, efficiency and innovation in environmental management, one name clearly stands out — Clean Harbors. As North America's premier environmental services company, Clean Harbors is committed to preserving our natural environment while providing our customers with the most efficient and technologically advanced solutions — specifically engineered for the way they do business.

We invite you to learn more about Clean Harbors and our full range of products and services that together help us reduce costs, quicken response times and dramatically improve our overall service to you.

Call Clean Harbors toll-free at 800.282.0058 or visit us on the Web at www.cleanharbors.com.

Complete Environmental Services

Look to Clean Harbors to handle every aspect of your environmental management program:

Technical Services

Transportation and Disposal

- Incineration
- Landfill
- Fuels Blending
- Lab Chemical Disposal
- Used Oil and Oil Products Recycling
- Wastewater Treatment
- PCB Disposal
- Recycling and Reuse
- Explosives Management

CleanPack® Laboratory Chemical Packing

- Laboratory Chemical Packing
- Reactive Material Services
- Laboratory Moves
- Cylinder and Compressed Gas Management
- Household Hazardous Waste
- CustomPack® Services
- Facility Closures

Site Services

Field Services

- Emergency Response
- Product Recovery and Transfer
- Tank Cleaning
- Demolition Services
- Remediation and Environmental Construction
- Site Decontamination
- Marine Services
- Vacuum Services
- PCB Management and Disposal

Industrial Services

- Hydroblasting
- Sodium Bicarbonate Blasting
- Dewatering and Pressing
- Container Management
- Vacuum Services
- Steam Cleaning
- Material Processing Services
- Chemical Cleaning

Site Services - Northeast Region
OPA Labor Rates
All rates Hourly unless otherwise specified

Field Personnel	Price
Field Technician	$52.00
Senior Technician	$57.00
Foreman	$68.00
Equipment Operator	$63.00
Supervisor	$88.00
Project Manager	$114.00
Chemist	$82.00
Lead Chemist	$105.00
Site Safety Officer	$122.00
Technical Personnel	
Associate Engineer	$86.00
Designer	$90.00
Drafter	$82.00
Electrician	$86.00
Field Engineer/Scientist/Geologist	$97.00
Field Inspector	$74.00
Licensed Plumber	$86.00
Mechanic	$86.00
Professional Engineer/LSP	$137.00
Senior Engineer/Scientist/Geologist	$108.00
Senior Mechanical Technician	$79.00
Sr. Mechanic	$92.00
Sr. Welder	$92.00
Wastewater Treatment Operator	$92.00
Welder	$86.00
Administrative/Managerial Personnel	
Commercial Trainer	$92.00
Coordinator	$114.00
General Manager	$146.00
On Site Administration/Accounting Clerk	$59.00
Major Event "Strike Team"	
Administration/Coordinator	$119.00
Logistics/Procurement	$86.00
Strike Team Leader	$166.00
Zone/Operations Manager	$124.00
Per Diem (per person per day)	$176.00

Site Services - Northeast Region
Equipment Rates
Units of Measure specified in UoM column

	UoM	Price
Earth Moving Equipment		
Backhoe Loader - 1 Yard Bucket	DAY	$470.00
Backhoe Loader - 1 Yard Bucket	HR	$75.00
Bobcat Backhoe Attachment	DAY	$135.00
Bobcat Forklift Attachment	DAY	$55.00
Bobcat Hydraulic Shears Attachment	DAY	$150.00
Bobcat Loader	DAY	$420.00
Bobcat Loader	HR	$70.00
Bobcat Sweeper Attachment	DAY	$135.00
Bulldozer 6-13 ton	DAY	$650.00
Excavator - Track	DAY	$775.00
Excavator - Track	HR	$95.00
Excavator- Link Belt with Mixer Attachment	DAY	$1,360.00
Loader - 3 Yard Bucket	DAY	$984.00
Loader - 3 Yard Bucket	HR	$73.00
Electric Power Tools		
1/2" Drill	DAY	$41.00
3/8" Drill	DAY	$33.00
60# Jackhammer	DAY	$87.00
Circular Saw	DAY	$57.00
Mercury Vacuum	DAY	$197.00
Reciprocating Saw	DAY	$75.00
Rivet Buster	DAY	$164.00
Shop (Wet) Vac	DAY	$41.00
Field Analytical		
4 Gas Meter	DAY	$170.00
Bailer & Sampling Equipment	DAY	$57.00
Conductivity Meter	DAY	$120.00
Draeger Air Monitor Pump	DAY	$75.00
Explosion/Oxygen Meter	DAY	$120.00
Geiger Counter	DAY	$150.00
Geoprobe	DAY	$218.00
Hydrogen Cyanide Meter	DAY	$124.00
Hydrogen Sulfide (H2S) Meter	DAY	$52.00
Hydrostatic Tester	DAY	$110.00
Interface Probe	DAY	$120.00
Lumex RA915+ Mercury Vapor Analyzer	DAY	$490.00
Mercury Vapor Analyzer	DAY	$250.00
Noise Dosimeter	DAY	$52.00
Organic Vapor Analyzer (OVA)	DAY	$155.00

	UoM	Price
Particulate Meter, Mini Ram or Equivalent	DAY	$120.00
Personal Air Pump	DAY	$57.00
pH Meter	DAY	$57.00
PID Meter	DAY	$120.00
Ultrasound Meter	DAY	$275.00
Unknown Testing Kit	DAY	$165.00
Well purging/Sampling Pump	DAY	$57.00
Gas Powered Tools		
Air Mover Flex Hose 4" (100ft Roll)	ROL	$88.00
Air Mover Flex Hose 6" (100ft Roll)	ROL	$171.00
Brush Cutter	DAY	$116.00
Chain Saw	DAY	$116.00
Cutoff Saw	DAY	$125.00
High Velocity Leaf Blower	DAY	$62.00
Heavy Duty Trucks		
Box Truck (10 Wheel)	HR	$60.00
Box Truck (6 Wheel)	HR	$60.00
Heavy Duty Liftgate Truck	DAY	$354.00
Heavy Duty Liftgate Truck	HR	$59.00
Dump Truck, 10 Wheel	DAY	$450.00
Dump Truck, 10 Wheel	HR	$75.00
Tractor - No Trailer	HR	$45.00
Tractor W/Box Van	HR	$56.00
Tractor W/Flatbed/Lowbed	HR	$57.00
Tractor W/Bulk Hopper	HR	$57.00
Tractor W/Dump Trailer	HR	$60.00
Tractor W/Roll-Off Trailer	HR	$57.00
Trailer Mounted High Powered Vac Unit	DAY	$777.00
Air Mover/Vactor	HR	$85.00
High Power Vacuum Truck/Cusco	HR	$93.00
High Power Vacuum Truck/Cusco W/Liquid Ring	HR	$105.00
Skid Mount Vacuum System	HR	$49.00
Tractor W/Liquid Transporter	HR	$59.00
Vactor W/Cyclone	HR	$100.00
Vactor W/HEPA	HR	$93.00
Vactor W/High Rail	HR	$125.00
Vacuum Tractor Trailer	HR	$56.00
Vacuum Truck Straight	HR	$56.00
Vactor Flex Hose 4" (100ft Roll)	ROL	$88.00
Vactor Flex Hose 6" (100ft Roll)	ROL	$171.00

*** Decontamination of Vacuum Trucks, Vactors, Cuscos, Trailers, etc. not included.
Some may require personnel entry, some may be deconned at a local truck wash.

	UoM	Price
Hoses/Pipe		
2" Cross Link Poly-Chem Hose (25')	DAY	$35.00
2" Lay Flat Hose (25')	DAY	$26.00
2" Oil Suction Hose (25')	DAY	$29.00
3" Cross Link Poly Chem Hose (25')	DAY	$48.00
3" Oil Suction Hose (25')	DAY	$40.00
3" Lay Flat Hose (25')	DAY	$39.00
3/4" Air compressor hose/foot	FT	$1.50
4" Lay Flat Hose (25')	DAY	$57.00
4" Cross Link Poly Chem Hose (25')	DAY	$64.00
4" Oil Suction Hose (25')	DAY	$57.00
4" HDPE Pipe w/ Quick Disconnects (40ft)	DAY	$22.00
6" Lay Flat Hose (25')	DAY	$75.00
6" Oil Suction Hose (25')	DAY	$83.00
6" HDPE Pipe w/ Quick Disconnects (40ft)	DAY	$24.00
Wash Hose (50')	DAY	$16.00
Light Duty Truck/Response Equipment		
2 1/2 Ton Utility Vehicle	DAY	$181.00
Emergency Response Van	HR	$75.00
Pickup/Van/Car/Crew Cab	DAY	$155.00
Spill Trailer	DAY	$186.00
Stake Body/Utility Truck	DAY	$186.00
Utility/Boom Trailer	DAY	$186.00
Welding Van	HR	$19.00
Marine Response Equipment		
10" Containment Boom	FT	$1.70
18" Containment Boom	FT	$1.90
24" Containment Boom	FT	$2.45
36" Containment Boom	FT	$2.75
48" Containment Boom	FT	$6.25
Boom Anchor System	DAY	$26.00
Boom Light	DAY	$26.00
Containment Boom Tow Bridle	DAY	$26.00
Global Positioning System	DAY	$60.00
Hydraulic Power Pack	DAY	$210.00
Inflatable Buoy	DAY	$33.00
Oil Corralling Spray Bar	DAY	$26.00
PFD Deck Suit	DAY	$75.00
PFD Life Vest	DAY	$24.00
Air Boat	DAY	CALL
Jon Boat	DAY	$135.00
20' Fast Response Vessel w/o use of Storage	DAY	$570.00
20' Fast Response Vessel with use of Storage (30 bbl)	DAY	$829.00
Marco Harbor 28' Fast Response Recovery Vessel	DAY	$5,235.00

	UoM	Price
Power Workboat (12' - 14')	DAY	$285.00
Power Workboat (15'-17')	DAY	$340.00
Power Workboat (18'-22')	DAY	$570.00
Power Boat (23'-30')	DAY	$625.00
Power Boat (23'-30') Twin Engine	DAY	$820.00
Power Barge Boat (26'-30') Twin Engine	DAY	$885.00
Power Boat (>30')	DAY	CALL
1" Belt Skimmer	MO	$544.00
Drum Skimmer Unit	DAY	$780.00
Duck Bill Skimmer	DAY	$26.00
Marco Skimmer Belt Drive	EA	$1,245.00
Marco Skimmer belt-light oil pads (Set of 4)	EA	$725.00
Skim Pack	DAY	$155.00
Weir Disc Skimmer Unit	DAY	$165.00
Rigid Hull Inflatable (RIB) (18ft-22ft)	DAY	$750.00
Landing Craft (LCM) (26in-28in) Twin Engine	DAY	$800.00
Underwater ROV	DAY	$1,200.00
Drum Skimmer (24in-36in)	DAY	$600.00

* Cost of Decontamination of Marine Response Equipment not included.
* Replacement Skimming Belts will be priced on request as needed.

Materials Processing Equipment

Centrifuge	DAY	$1,036.00
Floating Dredge (10' depth)	DAY	$466.00
Floating Dredge (20' depth)	DAY	$725.00
Mobile Belt filter press	DAY	$518.00
Mobile Plate and Frame filter press	DAY	$622.00
Robotic Manway Cannon	DAY	$622.00
Vapor Recovery Unit (Double Column)	DAY	$518.00

Pneumatic Power Tools

1/2" Drive Drill	DAY	$60.00
3/4" Rotary Hammer Drill	DAY	$87.00
3/8" Drive Drill	DAY	$36.00
Jackhammer 40 Lb.	DAY	$62.00
Jackhammer 60 Lb.	DAY	$78.00
Jackhammer 90 Lb.	DAY	$93.00
Pallet Jack	DAY	$11.00
Pneumatic Chipping Gun	DAY	$100.00
Reciprocating Saw	DAY	$98.00
Scraping Gun, Air Driven	DAY	$75.00
Steel Nibbler	DAY	$125.00

	UoM	Price
Pressure Washing Equipment		
1000 PSI Pressure Washer	DAY	$95.00
2000 PSI Pressure Washer	DAY	$104.00
2500 PSI Hot Pressure Washer	DAY	$326.00
2500 PSI Pressure Washer	DAY	$112.00
3000 PSI Hot Pressure Washer	DAY	$359.00
3500 PSI Hot Pressure Washer	DAY	$363.00
3D/ Automated Nozzle for Water Blaster	HR	$77.00
Water Blaster, 10,000 PSI	HR	$67.00
Water Blaster, 20,000 PSI	HR	$130.00
Water Blaster, 40,000 PSI	HR	$157.00
Pumping/Transferring Pumps		
1" Double Diaphragm Pump	DAY	$92.00
2" Centrifical Pump	DAY	$105.00
2" Chemical Diaphragm Pump	DAY	$174.00
2" Double Diaphragm Pump	DAY	$131.00
2" Electric Submersible Pump	DAY	$82.00
2" Hale Pump/Trash Pump	DAY	$104.00
2" Parastolic Pump	DAY	$363.00
3" Centrifical Pump	DAY	$120.00
3" Chemical Diaphragm Pump	DAY	$192.00
3" Diesel Lister Pump	DAY	$147.00
3" Double Diaphragm Pump	DAY	$147.00
3" Electric Submersible Pump	DAY	$104.00
3" Hale Pump/Trash Pump	DAY	$120.00
4" Centrifical Pump	DAY	$147.00
4" Double Diaphragm Pump	DAY	$202.00
4" Electric Submersible Pump	DAY	$152.00
4" Hale Pump/Trash Pump	DAY	$272.00
4" Hydraulic Transfer Pump	HR	$33.00
6" Hydraulic Sludge Pump with Power Pack	DAY	$518.00
6" Hydraulic Transfer Pump	HR	$250.00
8" Hydraulic Transfer Pump	HR	$300.00
Drum Loader	DAY	$164.00
Electric Drum Pump	DAY	$104.00
Hand Pump	DAY	$33.00
Pneumatic Drum Vac - Venturi	DAY	$175.00
Respiratory Protection		
2 Man Breathing System	DAY	$275.00
4 Man Breathing System	DAY	$350.00
6 Man Breathing System	DAY	$375.00
Breathing Air Hose/100 FT	DAY	$100.00
Negative Air Machine	DAY	$250.00
Negative Air Machine	WK	$653.00
Respirator, Full Face	DAY	$30.00
Self Contained Breathing App.	DAY	$250.00

Site Services - Northeast Region
Equipment Rates
Units of Measure specified in UoM column

	UoM	Price
Site Support		
150,000 BTU Portable Heater	DAY	$260.00
2,000 Gal Poly Storage Tank	DAY	$75.00
20,000 Gal. Double walled Frac Tank	DAY	$185.00
20,000 Gal. Frac Tank	DAY	$155.00
3,000 Gal Steel Storage Tank	DAY	$25.00
3,000 Gal Steel Storage Tank	WK	$125.00
300 - 500 gal Poly Storage Tank	DAY	$40.00
300 - 500 gal Poly Storage Tank	WK	$280.00
300 - 500 gal Poly Storage Tank	MO	$1,200.00
4,000 Gal Poly Storage Tank	DAY	$91.00
4000 Watt Generator	DAY	$133.00
Air Compressor 8/10 CFM	DAY	$115.00
Air Compressor 175 CFM	DAY	$250.00
Air Compressor 375 CFM	DAY	$350.00
ATV 4x4 or 4x6	DAY	$350.00
Carbon Filter - Vapor Phase, Small	WK	$544.00
Carbon Filter - Skid Mounted, Liquid Phase, 10GPM	DAY	$65.00
Carbon Filter - Skid Mounted, Liquid Phase, 10GPM	WK	$325.00
Carbon Filter - Skid Mounted, Liquid Phase, 10GPM	MO	$1,365.00
Carbon Filter - Trailer Mounted, Liquid Phase 100/200GPM	DAY	$653.00
Carbon Filter - Trailer Mounted, Liquid Phase 100/200GPM	WK	$3,918.00
Carbon Filter - Trailer Mounted, Liquid Phase 100/200GPM	MO	$13,713.00
Carbon Filter - Trailer Mounted, Liquid Phase 300GPM	DAY	$1,035.00
Carbon Filter - Trailer Mounted, Liquid Phase 300GPM	WK	$6,210.00
Carbon Filter - Trailer Mounted, Liquid Phase 300GPM	MO	$21,735.00
Carbon Filter - Trailer Mounted, Liquid Phase 50-85GPM	DAY	$325.00
Carbon Filter - Trailer Mounted, Liquid Phase 50-85GPM	WK	$1,950.00
Carbon Filter - Trailer Mounted, Liquid Phase 50-85GPM	MO	$6,825.00
Carbon Filter - Van mounted, Liquid Phase, 150GPM	DAY	$924.00
Carbon Filter - Van mounted, Liquid Phase, 150GPM	WK	$5,544.00
Carbon Filter - Van mounted, Liquid Phase, 150GPM	MO	$19,404.00
Carbon Filter - Van Mounted, Low Profile Air Stripper 100GPM, 1200CFM	DAY	$925.00
Carbon Filter - Van Mounted, Low Profile Air Stripper 100GPM, 1200CFM	WK	$5,550.00
Carbon Filter - Van Mounted, Low Profile Air Stripper 100GPM, 1200CFM	MO	$19,425.00
Carbon Filter System - 55gal	DAY	$238.00
Carnaflex Bags, SeaSlugs - 100 barrel	DAY	CALL
Carnaflex Bags, SeaSlugs - 200-500 gal	DAY	CALL
Chains & Binders	DAY	$40.00
Construction Debris Box, Non Haz Only	DAY	$50.00
Decon Pool 10' x 10'	DAY	$150.00
Decon Pool 20' x 100'	DAY	$500.00
Decon Pool 25' x 50'	DAY	$250.00
Decontamination Trailer	DAY	$175.00
Dewatering box	DAY	$164.00
Drum Scale (Portable)	DAY	$55.00
Dump Trailer, No Tractor (For on-site Storage Only)	DAY	$70.00
Eyewash Station	DAY	$50.00

	UoM	Price
Generator (5K)	DAY	$150.00
Generator (8K)	DAY	$175.00
Generator (12K)	DAY	$155.00
15 Gal HEPA Filter	DAY	$164.00
Hand tool package	DAY	$30.00
Incident Command Unit	DAY	$1,500.00
Intermodel Container	DAY	$30.00
Intrinsically Safe Drop Light	DAY	$100.00
Intrinsically Safe Tool Kit	DAY	$26.00
Light Stand	DAY	$100.00
Light Tower w/Generator	DAY	$500.00
Office Trailer	DAY	$110.00
Personnel Staging Tent 20' x 30'	DAY	$155.00
Portable Boiler Unit	DAY	$870.00
Portable Boiler Unit	WK	$4,350.00
Roll-Off Container	DAY	$19.00
Secondary Containment	DAY	$39.00
Spotlight, Halogen	DAY	$100.00
Tank Trailer, No Tractor (For On-site Storage Only)	DAY	$435.00
Truck Scale (Portable)	DAY	$290.00
Vacuum Box with Filtration Unit, Watertight	DAY	$275.00
Vacuum Box, Watertight	DAY	$104.00
Van Trailer, No Tractor (For On-site Storage Only)	DAY	$192.00
Wheel Barrow	DAY	$21.00

** Spotting fee, Liners, Cleaning of Unit not included.

Specialty Equipment

Acetylene Cutting Torch	DAY	$114.00
Auger - Electric	DAY	$70.00
Auger - Heated	MO	$1,903.00
Auger - Manual	DAY	$62.00
Belt Press	DAY	$518.00
Chemical Cleaning Unit	HR	$110.00
Compactor	DAY	$62.00
Concrete Saw - Walk Behind	DAY	$218.00
Concrete Saw - Walk Behind	WK	$1,090.00
Concrete Saw - Walk Behind	MO	$4,578.00
Confined Space Entry Gear	DAY	$348.00
DBI/Rogliss Tripod	DAY	$62.00
Digital Camera	DAY	$82.00
Drum Crusher - Portable	HR	$55.00
Drum Crusher - Portable	DAY	$435.00
Drum Dolly	DAY	$21.00
Drum Grabber, Mechanical	DAY	$27.00
Drum Tilter, Mechanical	DAY	$164.00
Electric Blower	DAY	$83.00
Fiber Optic Camera	HR	$55.00
Fiber Optic Camera	DAY	$165.00
Fiber Optic Camera Truck	HR	$142.00

Site Services - Northeast Region
Equipment Rates
Units of Measure specified in UoM column

	UoM	Price
Forklift W/Drum Grabber	DAY	$425.00
Forklift W/Drum Tilter	DAY	$425.00
Forklift (2000 Lb. Capacity)	DAY	$400.00
Hydraulic Shears	DAY	$777.00
Jet Air Blower	DAY	$62.00
Plasma Cutting Torch	DAY	$226.00
Pneumatic Fan Blower	DAY	$83.00
Pneumatic Remote Drum Opener (penetration)	DAY	$1,140.00
Sandblaster & Hose	DAY	$164.00
Soil Vent Blower	DAY	$164.00
Traffic Cones/Barricade	DAY	$1.10
Traffic Sign - Arrow Board	DAY	$38.00
Traffic Sign - Other	DAY	$1.10
Transit Set	DAY	$119.00
Well Development Rig	HR	$38.00

	UoM	Price
Personal Protective Equipment (Per person per change out)		
Level A Intrinsically Safe, Hands Free Communications Package	DAY	$140.00
Level A with RESPONDER Plus Suit	EA	$596.00
Level A with RESPONDER Suit	EA	$285.00
Level B with CPF 2 or Poly Tyvek	EA	$171.00
Level B with CPF 3 or Saranex Suit	EA	$181.00
Level B with CPF 4 or Barricade Suit	EA	$207.00
Level C with CPF 1, CPF 2, or Poly Tyvek Suit	EA	$52.00
Level C with CPF 4 or Barricade	EA	$98.00
Level C with CPF3 or Saranex	EA	$67.00
Level D with Tyvek, Boots, Gloves	DAY	$26.00
Chemical Protective Garments		
Kappler CPF1 Apron	EA	$15.00
Kappler CPF1 Suit (Blue)	EA	$30.00
Kappler CPF2 Suit (Grey)	EA	$50.00
Kappler CPF2 Suit w/Strapped Seams (Grey)	EA	$85.00
Kappler CPF3 Suit w/Hood & Boots (Tan)	EA	$115.00
Kappler CPF3 Suit w/Hood & Strapped Seams (Tan)	EA	$100.00
Kappler CPF4 Suit w/Hood & Boots (Green)	EA	$120.00
Kappler CPF5 Responder Level A Suit (Blue)	EA	$1,245.00
Kappler CPF5 Responder Plus Level A Suit (Orange)	EA	$1,500.00
Barricade Suit	EA	$70.00
Chemrel Suit, Level B	EA	$105.00
Chemrel Suit, Level C	EA	$70.00
Chemtuff Suit, Level B	EA	$40.00
Chemtuff Suit, Level C	EA	$35.00
Polycoated Rain Gear, 22mil	EA	$16.00
Tyvek, Polycoat HD/BT	EA	$16.00
Tyvek, Saranex	EA	$30.00
Tyvek, White	EA	$20.00
Hand Protection		
12in PVC Gloves	PAIR	$10.00
14in Neoprene Gloves	PAIR	$11.00
14in Nitrile Gloves	PAIR	$11.00
18in PVC Gloves	PAIR	$11.00
Cotton Winter Glove Liners	PAIR	$5.25
Cut Resistant Gloves	PAIR	$25.00
Latex Gloves	BOX	$11.00
Leather Gloves	PAIR	$5.75
Puncture Resistant Gloves	PAIR	$30.00
Silver Shield Gloves	PAIR	$30.00

	UoM	Price
Respiratory Protection		
Acid Cartridges	PAIR	$23.00
Ammonia Cartridges	PAIR	$30.00
Asbestos Cartridges	PAIR	$26.00
Chlorine Cartridges	PAIR	$25.00
Mercury Cartridges	PAIR	$44.00
MSA Chemical Cartridge	EA	$26.00
Organic Vapor Cartridges (No Dust)	PAIR	$25.00
Organic Vapor/Dust Combination Cartridges	PAIR	$45.00
Pesticide Cartridges	PAIR	$30.00
Foot Protection		
17in Over/Slush Boots - Rental	PAIR	$21.00
Disposable Boot Covers (Chicken Boots)	PAIR	$11.50
Non Steel Toe Chest Waders - Purchased	PAIR	$205.00
Steel Toe Knee Boots - Rental	PAIR	$30.00
Head / Facial Protection		
16oz Eyewash	EA	$20.00
Chemical Resistant Hoods	EA	$35.00
Cold Weather Hard Hat Liners	EA	$7.25
Earplugs	PAIR	$1.75
Face/Splash Shield	EA	$20.00
First Aid Kit, 25 Person	EA	$75.00
DOT Shipping Containers		
1 Cubic Yard Flexbin 11G/Y/2022/1122	EA	$140.00
1 Cubic Yard Supersac 13H2/Y/06	EA	$65.00
10 Gal / 40 Litre Fiber Drum	EA	$20.00
110 Gal Steel Drum, New 1A2/Y400S	EA	$365.00
110 Gal Steel Drum, Reconditioned 1A2/Y400S	EA	$345.00
15 Gal / 60 Litre Poly Drum 1H1/Y1.8/100	EA	$55.00
16 Gal / 70 L Closed Poly Drum	EA	$55.00
16 Gal / 70 L Poly Drum 1H2/Y56/S	EA	$55.00
16 Gal Fiber Drum	EA	$25.00
18x18x24in Nonhazardous Pathological Waste Box	EA	$9.00
20 Gal / 80 Litre Fiber Drum	EA	$30.00
20 Gal / 80 Litre Poly Drum (1H2/Y56/S)	EA	$75.00
30 Gal / 120 Litre Closed Poly Drum 1H1/Y1.8/100	EA	$70.00
30 Gal / 120 Litre Closed Steel Drum, New 1A2/Y1.6/200	EA	$85.00
30 Gal / 120 Litre Closed Steel Drum, Reconditioned 1A1/Y1.4/100	EA	$75.00
30 Gal / 120 Litre Fiber Drum 1G/X56/S	EA	$45.00
30 Gal / 120 Litre Poly Drum 1H2/Y142/S	EA	$70.00
30 Gal / 120 Litre Steel Drum, New 1A2/Y1.4/100	EA	$100.00
30 Gal / 120 Litre Steel Drum, Reconditioned 1A2/Y1.2/100	EA	$60.00
4ft Fluorescent Tube Box 4G/Y275	EA	$13.00

	UoM	Price
5 Gal / 20 Litre Closed Poly Drum 1H1/Y1.8/170	EA	$25.00
5 Gal / 20 Litre Closed Steel Drum 1A1/Y1.8/300	EA	$30.00
5 Gal / 20 Litre Poly Drum 1H2/Y1.5/60	EA	$20.00
5 Gal / 20 Litre Steel Drum 1A2/Y1.8/100	EA	$30.00
5.5 Gal / 20 L Steel Drum 1A2/Y23/S	EA	$20.00
55 G / 205 L Closed Steel Drum, Recon 1A1/Y1.4/100 (17-E)	EA	$40.00
55 G / 205 L Steel Drum, Reconditioned 1A2/Y1.2/100 (17-H)	EA	$60.00
55 Gal / 205 L Stainless Steel Drum, Reconditioned	EA	$230.00
55 Gal / 205 Litre Closed Poly Drum 1H1/Y1.8/150	EA	$80.00
55 Gal / 205 Litre Closed Poly Drum 1H1/Y1.8/150, Recycled	EA	$78.00
55 Gal / 205 Litre Closed Steel Drum, New 1A1/Y1.8/300	EA	$88.00
55 Gal / 205 Litre Fiber Drum 1G/Y190/S	EA	$50.00
55 Gal / 205 Litre Poly Drum 1H2/Y237/S	EA	$135.00
55 Gal / 205 Litre Steel Drum Heavy Gauge 1A2/1.5/100 (17-C)	EA	$125.00
55 Gal / 205 Litre Steel Drum, New 1A2/Y1.5/100	EA	$100.00
55 Gal/205 Litre Steel Drum Poly Line 6HA1/X1.5/280 (6D/37M)	EA	$170.00
85 Gal / 320 Litre Steel Drum, New 1A2/X400/S	EA	$210.00
85 Gal / 320 Litre Steel Drum, Recycled 1A2/X400/S	EA	$165.00
8ft Fluorescent Tube Box 4G/Y275	EA	$20.00
95 Gal Poly Drum 1H2/Y318/S (Overpack)	EA	$245.00
Asbestos Bag	EA	$1.45
Cubic Yard Box for Non-Haz Waste	EA	$90.00
Drum Liners	EA	$20.00
Drum Rings/Bolts/Gaskets	EA	$25.00
Dump Trailer Poly Liner	EA	$87.00
Filter/Liner for Filter Box	EA	$325.00
Flexbin/Cubic Yard Box Liner	EA	$25.00
Fluorescent Bulb Tubes, 8ft 100 bulb capacity	EA	$70.00
Fluorescent Bulb Tubes, 8ft 125 bulb capacity	EA	$70.00
Pathological Waste Bag	EA	$5.50
Poly Sheet, 6mil 20ft x 100ft	EA	$100.00
Rolloff Poly Liner	EA	$70.00
Oversized heavy duty biohaz bag	EA	$40.00
Poly Bags, 6mil, per Roll	EA	$130.00
Waste Wrangler	EA	$170.00
Absorbent Materials		
Absorbent Boom, 3in x 4ft	EA	$5.50
Absorbent Boom, 5in x 10ft x 4/Bale	BALE	$140.00
Absorbent Boom, 8in x 10ft x 4/Bale	BALE	$225.00
Absorbent Pad (101 Grade) 100/bale	BALE	$115.00
Absorbent Pillow, 14in x 25in	EA	$27.00
Absorbent Pillow, 14in x 25in x 10/Bale	BALE	$175.00
Absorbent Roll, 38in x 144ft	EA	$165.00
Absorbent Rug, 36in x 300ft	EA	$230.00
Absorbent Sweep, 17in x 100ft	BALE	$145.00

	UoM	Price
Activated Carbon for Water treatment systems	LBS	$2.75
Corn Cob Absorbent	PAL	$500.00
Corn Cob Absorbent 40lb / 18 kg bag	BAG	$15.00
HGX Absorbent (Mercury absorbent)	LBS	$18.00
HGX Absorbent (Mercury Absorbent), 5 lbs container	EA	CALL
Oil Snare, Loose in Bag	BOX	$60.00
Oil Snare, on a Line, 50ft	EA	$88.00
Poly Absorbent, 20 lb / 23 kg	BAG	$95.00
Rags, 50 lb / 23 kg	BOX	$55.00
Saw Dust, 20 lb / 9 kg	BAG	$8.30
Speedi Dry	BAG	$10.50
SPI Solidification Particulate (Oil Bond)	LBS	$17.00
SPI Waterbond	LBS	$14.00
Vermiculite 4 cuft / 3 cubic meter	BAG	$23.00
Degreasers & Neutralizing Agents		
142 Solvent	GAL	$9.25
Antifreeze, Concentrate	GAL	$5.25
Capsur	GAL	$155.00
Citric Acid Solution, 15%	GAL	$6.25
Citrus Cleaner Degreaser	GAL	$55.00
Diesel Fuel Used a Cleaner	GAL	CALL
Hydrated Lime, 50 lb / 23 kg	BAG	$7.25
Hydrochloric Acid	LBS	$3.25
Liquid Alive	GAL	$76.00
No Flash	GAL	$25.00
Penetone Degreaser	GAL	$29.00
PES 51 Cleaner	GAL	$70.00
Pink Stuff Degreaser	GAL	$20.00
Sanimate Degreaser	GAL	$20.00
Sea Clean Degreaser, 5 Gal / 20 Litre	EA	$75.00
Simple Green Degreaser	GAL	$30.00
Soda Ash, 100 lb / 45 kg	BAG	$46.00
Sodium Bisulfate 50 lb / 23 kg	BAG	$110.00
Sodium Hypochlorite, 15% (Bleach)	GAL	$6.25
Spray Gel	GAL	$26.00
Trichloroethane	GAL	$7.25
Sampling And Lab Supplies		
8oz Sample Jars	EA	$12.00
12oz Sample Jar w/Cover	EA	$3.25
16oz Sample Jar w/Cover	EA	$4.25
32oz Sample Jar w/Cover	EA	$5.25
CHLOR-D-TECT 4000 Test Kit (Halogens)	EA	$25.00

	UoM	Price
CHLOR-N-OIL Test Kit 0-50ppm PCB	EA	$25.00
CHLOR-N-OIL Test Kit 50-500ppm (PCB)	EA	$20.00
Draeger Tube	EA	$25.00
Hanby Soil Reagent/Sample	EA	$50.00
pH Paper, 1-14/Roll	EA	$15.00
Sample Tube	EA	$15.00
Buna/Velluminoid Materials		
2in Flange/Ring Gasket	EA	$5.25
3in Flange/Ring Gasket	EA	$6.25
4in Flange/Ring Gasket	EA	$8.50
6in Flange/Ring Gasket	EA	$13.00
8in Flange/Ring Gasket	EA	$14.00
10in Flange/Ring Gasket	EA	$17.00
12in Flange/Ring Gasket	EA	$18.00
14in Flange/Ring Gasket	EA	$20.00
16in Flange/Ring Gasket	EA	$21.00
24 - 36in Manhole Gasket	EA	$75.00
Marine Equipment		
1/2in Galvanized Shackle/Screwpin	EA	$15.00
1/2in Galvanized Swivel/Eye&Eye	EA	$35.00
10in Inflatable Buoy	EA	$42.00
13in Inflatable Buoy	EA	$65.00
19in Inflatable Buoy	EA	$90.00
24in Safety Throw Ring	EA	$115.00
6in Pick up Buoy	EA	$35.00
3/8in Unguarded Galvanized Chain	FT	$6.25
Anchor, 18Lb	EA	$125.00
Anchor, 22Lb	EA	$150.00
Anchor, 25Lb	EA	$200.00
Anchor, 40Lb	EA	$305.00
Anchor, 43Lb	EA	$315.00
PFD Deck Suit	EA	$610.00
PFD Safety Light	EA	$25.00
PFD Survival Suit	EA	$870.00
PFD Work Vest	EA	$520.00
Signal Horn	EA	$30.00
1/2in Nylon Rope	FT	$0.90
1/2in Poly Rope	FT	$0.40
1/8in Poly Rope	FT	$0.30
12" Masonry Cutting Wheel	EA	$55.00
12" Metal Cutting Wheel	EA	$30.00
12in Masonry Cutting Wheel Blade	EA	$14.00
12in Metal Cutting Wheel Blade	EA	$14.00

	UoM	Price
Hand Tool/Construction Accessories		
16in Street Broom	EA	$31.00
24in Floor Broom	EA	$31.00
3 Gal Pump Spray Bottle	EA	$47.00
3/8in Manila Rope	FT	$0.40
3/8in Manila Rope Coil, 600ft	EA	$150.00
3in Long Handle Scraper	EA	$21.00
3in Scraper	EA	$13.00
Bow Rake	EA	$41.00
Carbide Blade	EA	$13.00
Caution Tape/Roll	EA	$50.00
Chemical Tape/Roll	EA	$45.00
Corn Broom	EA	$21.00
Deck/Scrub Brush	EA	$16.00
Disposal Hand Pump/Siphon Pump	EA	$30.00
Duct Tape/Roll	EA	$10.50
Extension Cord, 50ft	EA	$40.00
Fence Stakes	EA	$8.30
Fence, Slit 100ft	EA	$130.00
Flat Shovel	EA	$28.00
Garden Hoe	EA	$26.00
Garden Rake	EA	$26.00
Pitch Fork	EA	$47.00
Plastic Shovel	EA	$25.00
Sawzall Blade	EA	$30.00
Shrink Wrap	ROL	$43.00
Small Sledge Hammer	EA	$36.00
Snow Fence/Safety Fence, 50ft	EA	$55.00
Spaded Shovel	EA	$31.00
Squeegee	EA	$33.00
Safety Plans And OPA-90 Documentation		
Etiological Infectious Matl E/R Cvrg(single site)&Site Walk	EA	$1,200.00
Additional Site Coverage (each site)	EA	$300.00
Annual Site Walk and Response Plan Listing - Regulatory	EA	$650.00
Annual Site Walk and Response Plan Listing - In-House	EA	$400.00
Additional Site Walk (w/in 50 miles of CHES)	EA	$300.00
Multi-State/Multi-Site Response Plan Listing & Site Walk	EA	$1,600.00
Minimum Charge for ER or BioHaz Jobs	EA	$2,000.00
OPA-90 PREP Documentation Fee	EA	$300.00
FRP Listing (Secondary Coverage,single-site) & Site Walk	EA	$650.00
Additional Site Walk (w/in 50 miles of CHES)	EA	$300.00
Multi-State/Multi-Site FRP Listing (supplementary) & Site Walk	EA	$900.00
OPA-90 FRP Primary OSRO Listing-Single Site	EA	$900.00
OPA-90 FRP Primary Listing-Additional Sites	EA	$300.00
After Action Report	EA	$100.00
Safety Plan - Standard	EA	$275.00

	UoM	Price
Miscellaneous		
#25 Filter Bag	EA	$7.50
Acetylene Bottle	EA	$41.00
Breathing Air Bottle Refill	EA	$26.00
Collection Jar for Mercury Vacuum	EA	$40.00
DOT Placards	EA	$3.00
Dump Truck Bow	EA	$30.00
Dump Truck Tarp	EA	$332.00
Filtration Bag for Mercury Vacuum	EA	$25.00
Hand Cleaner	EA	$26.00
Nitrogen Cylinder - 300 cuft	DAY	$60.00
Propane Bottle	EA	$65.00
Rolloff Bow	EA	$35.00
Rolloff Tarp	EA	$362.00
Super Baffler Styrofoam Reusable Paint Filter, 20/case	CASE	$170.00

Site Services - Northeast Region
Analytical Rates
Unit of Measure is Each

	Price
Organic Analyses	
Acid Extractables - EPA method 625/8270	$257.00
Aromatic Volatile Organics - EPA method 602/8020	$109.00
Base/Neutral & Acid Extractables - EPA method 625/8270	$435.00
Base/Neutral Extractables - EPA method 625/8270	$295.00
Chlorinated Herbicides	$264.00
Extractable Petroleum Hydrocarbon, Deluxe - MA DEP EPH	$306.00
Extractable Petroleum Hydrocarbon, Standard - MA DEP EPH	$192.00
Halogenated Volatile Organics - EPA method 601/8010	$120.00
Hydrocarbon Identification & Quantification - EPA method 8100	$166.00
Library Search GC/MS	
BNA (20 substances of greatest apparent concentration)	$88.00
VOA (10 substances of greatest apparent concentration)	$67.00
Organochlorine Pesticides - EPA method 608/8080	$159.00
Organochlorine Pesticides & PCB - EPA method 608/8080	$202.00
Organophosphorous Pesticides - EPA method 8140	$348.00
PCBs, Oil - EPA method 600/4-81-045	$104.00
PCBs, Water or Solid - EPA method 608/8080	$120.00
PCBs, Wipe - EPA method 8080	$104.00
Polychlorinated Dioxins/Furans - EPA method 8280	$1,813.00
Polynuclear Aromatic Hydrocarbons by HPLC - EPA method 8310	$316.00
Total Petroleum Hydrocarbons as Diesel - EPA method 8015	$114.00
Total Petroleum Hydrocarbons as Gasoline - EPA method 8015	$100.00
Volatile Organics - EPA method 624/8260	$197.00
Volatile Petroleum Hydrocarbon, Deluxe - MA DEP VPH	$155.00
Volatile Petroleum Hydrocarbon, Standard - MA DEP VPH	$114.00
Trace Metals Analyses	
Individual Metals By:	
Chromium Hexavalent - SM3500-Cr D/7196	$47.00
Direct Aspiration (Flame (AA) or ICP) - EPA Series 200/7000	$19.00
Graphite Furnace - EPA Series 200/7000	$31.00
Mercury - Cold Vapor - EPA Methods 245.1/7470/7471	$47.00
Inorganic Analyses	
Acidity - EPA method 305.1	$26.00
Alkalinity - EPA method 310.1	$26.00
Ash Content - ASTM D482-80	$47.00
Biochemical Oxygen Demand - EPA method 405.1	$47.00
Bromide - EPA method 320.1	$47.00
BTU (Heating Value) - ASTM D240-76	$137.00
Chemical Oxygen Demand - EPA method 410	$36.00
Chloride - EPA method 325.3	$26.00
Chlorine, Residual - SM 4500 Cl G	$26.00
Chlorine, Total - EPA method 330.5	$31.00
Cyanide, Amenable to Chlorination - EPA methods 335.1/9010	$62.00
Cyanide, Reactive - EPA method 7.3.3.2	$52.00
Cyanide, Total - EPA methods 335.2/9010	$47.00
Flashpoint - EPA method 1010/ASTM D1310-84	$41.00

	Price
Fluoride - EPA method 340.1	$31.00
Halogens, Total - ASTM Methods D808/D512	$145.00
Hardness - EPA method 130.2	$26.00
Nitrogen, Ammonia - EPA method 350.2	$36.00
Nitrogen, Kjeldahl - EPA method 351.3	$47.00
Nitrogen, Nitrate - EPA method 352.1	$36.00
Nitrogen, Nitrate & Nitrite - EPA method 353.2/352.1/354.1	$36.00
Nitrogen, Nitrite - EPA method 354.1	$31.00
Nitrogen, Organic - EPA methods 351.3/350.2	$62.00
Oil & Grease, Gravimetric, Total - EPA methods 413.1/9070	$62.00
Oil & Grease, Gravimetric, Petroleum Hydrocarbon - SM 5520F	$85.00
Oil & Grease, Infrared (IR), Total - SM 5520F	$83.00
Oil & Grease, Infrared (IR), Total & Petroleum Hydrocarbon -SM5520F	$88.00
Oil & Grease, Infrared (IR), Total Petroleum Hydrocarbon -EPA Method 418.2	$81.00
Paint Filter Test - EPA method 9095	$31.00
pH - EPA methods 150.1/9040/9045	$21.00
Phenols, Total - EPA methods 420.1/9065	$47.00
Phosphorous, Orthophosphate - EPA method 365.2	$36.00
Phosphorous, Total - EPA method 365.2	$47.00
Sieve Test - ASTM D422-63	$202.00
Solids, Settleable - EPA method 160.5	$21.00
Solids, Total - EPA method 160.3/SM 2540G	$21.00
Solids, Total Dissolved - EPA method 160.1	$26.00
Solids, Total Suspended - EPA method 160.2	$21.00
Solids, Total Volatile - EPA method 160.4	$26.00
Specific Conductance - EPA method 120.1	$21.00
Specific Gravity - ASTM D1429-76	$52.00
Sulfate - EPA method 375.4/9036	$31.00
Sulfide, Reactive - EPA method 7.3.4.2	$57.00
Sulfide, Total - EPA method 376.1/9030	$36.00
Sulfite - EPA method 377.1	$31.00
Sulfur - ASTM D129-64	$98.00
Surfactants - EPA method 425.1	$83.00
Total Organic Carbon - EPA methods 415.1/9060	$73.00
Turbidity - EPA method 180.1	$21.00
Viscosity - ASTM D455-88	$116.00

Environmental Packages

Toxicity Characteristic Leaching Procedure

Base/Neutral & Acid Extractable Organics - EPA method 8270	$435.00
Chlorinated Herbicides - EPA method 8150	$223.00
Extraction for Metals, Base/Neutral & Acid Extractables, Pesticides and Herbicides - EPA method 1311	$83.00
Full TCLP Analysis	$1,342.00
Metals - EPA 7000 Series	$155.00
Organochlorine Pesticides - EPA method 8080	$161.00
Volatile Organics - EPA method 8260	$192.00
Zero Headspace Extraction - EPA method 1311	$109.00

	Price
Appendix IX Analyses	
Base/Neutral & Acid Extractable Organics - EPA method 8270	$668.00
Chlorinated Herbicides - EPA method 8150	$332.00
Cyanide - EPA method 9010	$41.00
Metals - EPA 7000 Series	$342.00
Organochlorine Pesticides - EPA method 8080	$290.00
Organophosphorous Pesticides - EPA method 8140	$332.00
Polychlorinated Dioxins/Furans - EPA method 8280	$1,813.00
Sulfide - EPA method 9030	$41.00
Volatile Organics - EPA method 8260	$321.00
Surcharge Schedule	
Surcharge for expedited turnaround, data within 24hrs - 100%	
Surcharge for expedited turnaround, data within 48hrs - 75%	
Surcharge for expedited turnaround, data within 72hrs - 50%	
Surcharge for expedited turnaround, data within 96hrs- 35%	
Waste Material Approval	
Profile Approval Fee (no sample required per permit)	$78.00
Profile Approval Fee & Sample Fingerprinting*	$104.00
Profile Approval Fee & Sample Treatability*	$155.00

*Plus Shipping

1. All labor, equipment, materials and services outlined in this Schedule of Rates will be invoiced at the rates listed, regardless of Clean Harbors' method of acquisition. Any items not described in this Schedule of Rates which are acquired by Clean Harbors shall be invoiced at Clean Harbors' cost plus a markup of thirty percent (30%). (Unless otherwise specified, these rates are not valid for response to Infectious Agents/Biologicals.)
2. Lodging and subsistence for Clean Harbors personnel and our subcontractors in the field are included in a per diem charge per person per day when working more than 30 miles from our closest operations center. The rate is outlined in the labor section of this document.
3. At it's sole discretion, Clean Harbors will determine the level of protection required for each project. Level A, B, C or D personal protection and safety packages will be invoiced at the rates shown in the Schedule of Rates.
4. The Schedule of Rates includes the cost of Clean Harbors basic medical monitoring program. Any special medical monitoring required by the client or the nature of the work will be added to the project scope and the client will invoiced at cost plus a markup of thirty percent (30%).
5. Clean Harbors' personnel and equipment will be charged portal-to-portal (mobilization and demobilization included). Services provided prior, during and/or subsequent to actual project site activities will also be charged at the Hourly Rate. This includes, but is not limited to, time taken by personnel to decontaminate and re-don protective clothing and equipment that is billed as part of the project.
6. Clean Harbors' normal employee workday is 7:00 am to 3:30 pm, Monday through Friday. Other work hours must be agreed to in writing in advance. No more than eight (8) hours of straight time will be billed for one person for one day. All time will be based upon a 24 hour day.
7. All hours worked in excess of eight (8) hours in the normal workday, as described above, as well as all hours worked all day Saturday are considered overtime and will be billed at 1.5 times the applicable straight time rate for all billable personnel.
8. Sunday and Holidays are considered premium time and will be billed at 2.0 times the applicable straight time rate for all billable personnel. Holidays are the legally observed United States Federal Holidays plus the day after Thanksgiving. When local laws or regulations recognize additional holidays or when local laws or regulations define premium hours in excess of this definition, Clean Harbors will invoice in accordance with local laws or regulations.
9. All emergency call-outs (i.e., less than 24-hour notice) will be subject to a minimum four (4) hour response charge or $2000.00 minimum charge, whichever is greater. Minimum charges do not apply to Transportation and Disposal.
10. A mobile communication charge of $50 per day for will apply for each foreman and all supervisor personnel for all emergency response
11. Charges for Safety Plans are assessed on all Emergency Response projects, or those involving OSHA regulated substances. Site Specific Health & Safety Plans prepared for the customer, or as required by applicable regulations, will be quoted on an individual basis.
12. A variable Energy and Security Recovery Fee (that fluctuates with the DOE national average diesel price), will be applied to the total invoice, excluding sales tax.
13. For the purposes of determining proper wages to be paid on prevailing wage projects, Field Technician and Senior Field Technician shall be defined as equivalent to the "Laborer" job description from the wage determination. Other Clean Harbors job titles should be consistent with existing prevailing wage categories.
14. For equipment with both an Hourly Rate and a Daily Rate, Hourly Rates will apply up to 6 hours; then the Daily Rate will apply up to 12 hours
    After 12 hours and up to 18 hours the Hourly Rate will apply.
    After 18 hours two Daily Rate charges will be applied. No more than 2 Daily Rates will apply per calendar day.

    For equipment with only Daily Rates, a day will be charged up to 12 hours.
    After 12 hours and up to 18 hours, an Hourly Rate will apply calculated as the Daily Rate divided by 8 hours.
    After 18 hours two Daily Rates will apply. No more than 2 Daily Rates will apply per calendar day.

    For boats and other marine equipment, Daily Rates will apply regardless of the hours used per day. Only one Daily Rate will apply for each calendar day.

    A day consists of a one calendar day. A new day begins at midnight and charges begin to accumulate at midnight for the next day.
15. For equipment identified in this Schedule of Rates that includes a Weekly Rate, a "Week" is defined as not more than seven (7) Daily Rate charges in a seven (7) day period, Monday through Sunday. The equipment will be subject to additional days or hours in excess of seven (7) Daily Rate charges in a week, not to exceed two weekly charges in a single 7 day week, Monday through Sunday.
16. All waste disposal from project and or response activities will be charged additionally to the rates lists herein. A Waste Document Preparation Fee of $125 per day will apply to any work generating waste. The fee includes labels, manifests/bills of lading and profiles.
17. Standby charges will be negotiated on a case-by-case basis.

Environmental Services, Inc.
1501 Washington Street, Post Office Box 859048
Braintree, MA 02185-9048
Tel (781) 849-1800

Schedule of Emergency Response Labor, Equipment and Material Rates

GE Services-Newington Energy

August 17, 2007

"People and Technology Protecting and Restoring America's Environment"

24 hour emergency response number 1-800-OIL-TANK (645-8265)

Location	Primary Contact	Address	City	State	Zip	Phone	Toll Free Phone	Fax	Coordinator(s)			
Albany, New York	Barry Pryor	32 Bask Road	Glenmont	NY	12077	518-434-0149	800-633-0666	518-434-9118	Scott Rose			
Atlanta (Tucker), GA	Steve Mersch	1875 Forge Street	Tucker	GA	30084	770-934-0902		770-496-5996	Lane Smith	Ken Dalton		
Baltimore, Maryland	Mark Hale	3527 Whiskey Bottom Road	Laurel	MD	20724	301-939-6000	800-368-8838	301-939-6076	Anthony Henson	Mark Hale		
Bangor, Maine	Jason Babbidge	40B Carey Circle	Hampden	ME	04401	207-262-9504	800-523-9287	207-262-9560	Ray Babbidge	Ken Burbank		
Bartow, FL	Jon Sandora	170 Bartow Municipal Airport	Bartow	FL	33830	863-519-6310	800-699-8916	863-519-6306	Jon Sandora	Jnet Sheffield		
Baton Rouge LA	Don Caldera	13351 Scenic Highway	Baton Rouge	LA	70807	225-778-1234	N/A	225-778-3511	Don Caldera	Jay Leglue		
Bow, NH	Steve Brown	20 Dunklee Road	Bow	NH	03304	603-224-6626	800-640-6478	603-224-6778	Joseph MacDonald			
Bristol, Connecticut	Fernando Centeno	761 Middle Street	Bristol	CT	06010	860-583-8917	800-637-2666	860-585-1740	Jose Flores			
Cannon Falls, MN	Mike Christensen	211 Holiday Avenue	Cannon Falls	MN	55009	507-263-0200	800-444-4244	507-263-0252				
Chattanooga, TN	Steve Mersch	3300 Cummings Road	Chattanooga	TN	37419	423-821-6926	800-444-6926	423-825-4140	Ken Dalton	Edd Burch	Michael Emery	Ray Dycus
Chesapeake Service Center	Mike Mayo	804J Indusrtrial Drive	Chesapeake	VA	23324	757-543-9240	N/A	757-543-8486	Mike Leuchte	Derrick Armstrong-Ops Mgr		
Chicago, Illinois	Mike Ortiz	11800 S. Stony Island Ave.	Chicago	IL	60617	773-646-6202	800-678-4244	773-646-6381	Todd Wasily	Joe Rios		
Cincinnati, Ohio	Brian Ludwig	4879 Spring Grove Avenue	Cincinnati	OH	45232	513-681-6242	800-805-4582	513-681-6246	Perry Michaelis	Teresa Wasson		
Cleveland, Ohio	Mike Jana	2930 Independence Road	Cleveland	OH	44115	216-429-2401	800-343-5119	216-429-2713	Curt Reuscher	Kevin Kirkpatrick		
Detroit, Michigan	Brian Overmyer	6414 Product Drive	Sterling Heights	MI	48312	586-977-8174	N/A	586-977-8415	Byron McMorris	Dennis Schooley		
Houston TX	Calvin Lewis	2202 Genoa Red Bluff Road	Houston	TX	77034	281-478-7700	N/A	281-478-7701	Theresa Posey			
Los Angeles, CA	Mike De La Torre	2500 East Victoria Street	Long Beach	CA	90220	310-764-5851	N/A	310-764-5863	Carlos Mena	Reginald Holman		
Metro New York/New Jersey	Shawn Barrett	3 Sutton Place	Edison	NJ	08817	732-248-1997	800-782-8805	732-248-4414	Julian Stroming			
Milford, Connecticut	Joe Heron	41 Eastern Steel Road	Milford	CT	06460	203-882-4297	N/A	203-878-1799	Jose Flores	David Rhodes		
N. Andover, Massachusetts	Rudy Longo	221 Sutton Street	N. Andover	MA	01845	978-683-1002	800-645-8265	978-686-2560	John Barry	Purcell, Mark	Adam Purcell	
N. Grafton, Massachusetts	David Laudani	188 Worcester Street	N. Grafton	MA	01536	508-839-5798	(800-6458265	508-839-9058	John Barry	Purcell, Mark	Adam Purcell	
Newburgh, New York	Paul Bomba	15 Little Brook Lane	Newburgh	NY	12550	845-566-5071	N/A	914-566-9014	Jose Flores			
Philadelphia/New Jersey	Joe Moyer	2858 Route 322, PO Box 337	Bridgeport	NJ	08014	856-467-3102	800-645-8265	856-467-7445	Kimberly Perna			
Port Arthur TX	Ed Yates	Highway #73 West at Sabine Consolidated Road	Port Arthur	TX	77640	409-796-1388	800-283-1385	409-796-1133	Carla Williams			
Providence, Rhode Island	Brian Fleet	8 Dexter Road	East Providence	RI	02914	401-431-1847	800-641-0007	401-431-2154	John Barry	Purcell, Mark	Adam Purcell	
Reidsville, NC	Jim Poch	208 Watlington Ind. Drive	Reidsville	NC	27320	336-342-6106	800-437-9749	336-361-6136	Mike Leuchte	Jim Poch		
Richmond, Virginia	Mike Mayo	7515 Harvest Road	Prince George	VA	23875	804-452-1800	800-364-5939	804-452-1700	Mike Leuchte	John DiCarlo		
San Diego, CA	Dean Matsuoka	131 W. 33rd Avenue, Suite 17	National City	CA	91950	619-477-9766		619-477-9560	Brent Trimmer			
San Jose, CA	Lee Barfield	1040 Commercial Street	San Jose	CA	95112	408-451-5000	N/A	408-453-6045	Nicholas Jasmin			
South Portland, Maine	Matt Quinn	17 Main Street	South Portland	ME	04106	207-799-8111	800-526-9191	207-799-0349	Ray Babbidge	Ken Burbank		
Sparks, Nevada	Matt Jung	1200 Marietta Way	Sparks	NV	89431	775-331-9400	N/A	775-331-9403	Matt Jung	Leif Hammond	Dave Walilzer	
Springfield, Massachusetts	Bob Grasis	190 Brookdale Drive	Springfield	MA	01104	413-827-8557	N/A	413-781-4110	Jose Flores			
Sulphur, LA	Ed Yates	3201 Petro Drive	Sulphur	LA	70665	337-882-1025	800-645-8265	337-882-1029	Carla Williams			
Syracuse Service Center	Barry Pryor	14 Corporate Drive	Syracuse	NY	13057	315-463-9901	N/A	315-463-9624	Scott Rose			
W. Sacramento, CA	Jeff Knight	8200 Berry Street , Suite 100	Sacramento	CA	95828	(916) 248-8241	N/A	(916) 383-3206	Kevin Carnahan	Brandon Dennison		
Weymouth, Massachusetts	Tom Kelley	609 Pleasant Street	Weymouth	MA	02189	781-803-4100	800-645-8265	781-331-8264	John Barry	Mark Purcell	Adam Purcell	
Wheeling, W. Virginia	Brian Overmyer	10 Industrial Park Drive	Wheeling	WV	26003	724-444-4244	800-645-8265	724-444-4240	Byron McMorris	Curt Reuscher		
Woburn, MA	Chris Moran	252 Salem Street	Woburn	MA	01801	781-935-9066	800-522-4645	781-935-8615	Thomas Covert			
CANADA												
Burlington-Guelph, Canada	Brett Herman	1790 Ironstone Drive	Burlington	ON	L7L 5V3	905-332-1111			Chris Fairweather	Ryan Holierhoek		
Dartmouth N.S. Canada	Greg Maynard	110 Thornhill Drive	Dartmouth	N.S.	N/A	902-481-0842	800-483-3718	902-481-0873	Greg Maynard	Rodney MacMullin	Brian Lamontagne	
London, Canada	Dan Rockel	2258 River Road	London	ON	N5W 6C2	519-451-6630	N/A	(519)-453-8129	Adam Rose	Ron Hilker		
Pickering, Canada	Ian Convery	Unit 20/21, 1734 Orangebrook Court	Pickering	ON	L1W 3G8	905-420-1313	N/A	905.420.7383	Sam Glofcheskie			
Winnipeg, Canada	Alfio Corvino	45 Terracon Place	Winnipeg	MB	R2J 4B3	204-231-9448	N/A	(204)-233-4177	Ian Lucas			
PUERTO RICO												
Puerto Rico Service Center	Juan Raul Trigo	Rd 869 St.2 Palmas Ind Park	Cataño	PR	00963	787-641-5393	787-641-5393	787-641-5391	Juan Raul Trigo	Mike Bordoni		

Revised on July 27, 2007

Appendix K

Incident Reports

(Completed Forms from ERP-00 (Form ERP-00-2))

Appendix L

Employee Training Outline

GEAE TRAINING OUTLINE

ICP TRAINING - AWARENESS LEVEL TRAINING

Topic: General Awareness of the ICP, its function and contents

Target Audience: All GEAE Responders and EHS Coordinators

Frequency: At initial roll-out of plan and annual refresher training

Estimated training time: 10-15 minutes

Agenda:

- Brief regulatory overview: FRP, SPCC, SWPPP, OSHA, emergency action planning
- Plan layout
- Highlight of critical information and "red book" information
  - site map with location of stormwater outfalls and containment areas
  - review of pollution control laws and regulations
  - description of containment area pumping guidelines and procedures
  - review of Initial Emergency Response flow chart
  - review of principles in responding to an emergency
  - review of expectations for responding to a non-emergency situation
  - instructions in the use of oil pollution prevention equipment
- Section by Section (ICP) Training

ICP TRAINING - ENVIRONMENTAL AWARENESS LEVEL TRAINING

Topic: General Environmental Awareness

Target Audience: All Manufacturing Personnel

Frequency: During initial personnel training

Estimated training time: One hour (Interactive Video Training)

Agenda:

- Review of Objectives
- Corporate Environmental Overview
  - Policy
  - Key Elements
- GEAE Environmental Program
  - Vision
  - Organization
- Overview of Laws and Regulations
  - Wastewater, Stormwater, Spill Control
  - Air
  - Solid/Hazardous Waste
  - SARA

ICP TRAINING – EMERGENCY ACTION TRAINING

Topic: Emergency Actions

Target Audience: ERO Members (Plant Protection Desk Officer, First Responders, EHS Primary Responders, Emergency Coordinator)

Frequency: At initial roll-out of plan and during annual drills

Estimated training time:

- Training: 1-2 hours
- Drills: 60-90 minutes

Agenda:

- Objectives
- Chemical Hazards
- Emergency Discovery Flowchart
- Emergency Action Flowchart
- Emergency Evacuation Flowchart
- Assembly Areas
- Steps to Follow if an Injury Occurs

ICP TRAINING – ICP MAINTENANCE, INSPECTION AND TESTING TRAINING

Topic: Completing Inspections and Testing Required by the ICP

Target Audience: Personnel who will be completing containment and stormwater inspections

Frequency: At initial roll-out of plan and annual refresher training

Estimated training time: 45-60 minutes

Agenda:

- Overview of ICP
- Overview of relevant regulations
- Review information in Appendix Q of ICP on Inspections
- Review of inspection procedures (e.g. frequency, route to follow, items to look for)
- Inspection documentation (blank forms, completing inspection logs, identifying, communicating and completing follow-up items)
- Tour of inspection routes

Appendix M

OPA Training

Table 1 Quarterly QI Notification Exercise

GECS NEL Facility
Newington Energy - Newington, NH

Person Making Notification	Notification Initiated		Response Received		Name/Title of Person Responding	Contact Method *	Description of Notification Procedure
	Date	Time	Date	Time			

*IP=In Person; TL=Telephone Landline; TC=Telephone Cellular; R=Radio; P=Pager; O=Other (Specify).

Retain this form for a minimum of 3 years.

Table 2 Spill Management Team Tabletop Exercise

GECS NEL Facility
Newington, NH

1.	Date Performed:	
2.	Exercise or Actual Response: If an exercise, announced or unannounced?	
3.	Location of Tabletop:	
4a.	Time Started:	4b. Time Completed:
5.	Response plan scenario used:	Average-Most Probable Discharge _____ Maximum-Most Probable Discharge _____ Worst Case Spill _____ Size of (simulated) spill _____ bbls
6.	Describe how the following objectives were exercised:	
a)	Spill Management Team's knowledge of oil-spill response plan:	
b)	Proper Notifications:	
c)	Communication System:	
d)	Ability to access contracted Oil Spill Removal Organizations:	
	e) Ability to coordinate spill response with On-Scene Coordinator, State, and other applicable Agencies:	
f)	Ability to access sensitive site and resource information in the Area Contingency Plan:	

Table 2 Spill Management Team Tabletop Exercise

GECS NEL Facility
Newington, NH

7. Description of lesson(s) learned, person(s) responsible for follow-up of corrective measures, and timetable for implementation.

Note: Retain this form for a minimum of 3 years.

Table 3 Equipment Deployment Exercise (Facility Owned Equipment)

GECS NEL Facility
Newington, NH

1. Date Performed:	
2. Exercise or Actual Response: If an exercise, announced or unannounced?	
3. Deployment Locations:	
4a. Time Started:	4b. Time Completed:
5. *Equipment deployed was (circle one):*	Facility Owned _____ OSRO Owned (If so, which OSRO) Both _____ Size of (simulated) spill _____ bbls
6. List type and amount of all equipment (e.g. boom and skimmers) deployed and number of support personnel employed:	
7. Describe goals of equipment deployment and list any ACP strategies tested. (Attach a sketch of equipment deployments and booming strategies:	
8. For the deployment of facility-owned equipment, was the amount of equipment deployed at least the amount necessary to respond to the facility's average most probable spill?	
9. For the deployment of OSRO-owned equipment, was a representative sample (at least 1000 feet of each boom type and at least one of each skimmer type) deployed? Yes No Comments: Was the equipment deployed in its intended operating environment? Yes No Comments:	

Table 3 Equipment Deployment Exercise (Facility Owned Equipment)

GECS NEL Facility
Newington, NH

10. Are all facility personnel that are responsible for response operations involved in a comprehensive training program, and all pollution response equipment involved in a comprehensive maintenance program? If so, describe the program: Date of last equipment inspection:
11. Was the equipment deployed by personnel responsible for its deployment in the event of an actual spill?
12. Was all deployed equipment operational? If not, why not?
13. Description of lesson(s) learned and identification of person(s) responsible for follow-up of corrective measures.

Note: Retain this form for a minimum of 3 years.

Table 4 Personnel Spill Response Training Log

GECS NEL Facility
Newington, NH

Date		Type of Training		Comments
		Prevention	Response	

Table 5 SPCC Discharge Prevention Meeting Log

GECS NEL Facility
Newington, NH

Date: Company: Attendees:		
Subject/Issue Identified	Required Action	Implementation Date

Appendix N

ICP Recordkeeping

- **ICP Annual Checklist**
- **ICP Record of Change**

ICP Annual Checklist and Record of Change

Table 1

ICP Annual Checklist

GECS NEL Facility

Newington, NH

An annual audit of the ICP shall be conducted by an Environmental Health and Safety representative and coordinated with the Emergency Coordinator to ensure that the Plan is current and effective, to correct any deficiency observed at the time of the audit and to ensure that personnel identified in the Plan understand their roles and responsibilities.

Item:	Verify Current		Comment
Telephone lists are up to date (including EC).	❑	❑	
Agreements with spill contractors are current and valid or changes in equipment capabilities.	❑	❑	
There have been changes in the facility which would affect a component of the plan, such as elimination or addition of a process.	❑	❑	
Local government response agency responsibilities or capabilities are unchanged.	❑	❑	

Training and drills were performed in accordance with Section 11.	❑	❑	
Drill critiques did not indicate any changes required to the plan.	❑	❑	
Post-incident critiques did not indicate any changes required to the plan.	❑	❑	

Audit performed by:

EHS Representative Name:	Signature	Date
Emergency Coordinator Name:	Signature	Date

Table 2

ICP Record Of Changes

GECS NEL Facility

Newington, NH

Revision Number	Affected Section(s)/Page(s)	Effective Date	Change Entered by Whom
1	Original ICP	September 2002	
2	Cover Sheet (which is also the cover of the binder); Table of Content; Section I - Pages 3, 4, 5, 6; Section II - Pages i, 1, and addition of Emergency Phone #'s; Section III - Pages 5, 6, 7, 8, 9, 100; Figure 1- Site Location (updated Triton's logo); Figure 4 - Tank Locations and Containment; Figure 6 - Fire Extinguishers; Appendix A - Cover Sheet and addition of ERP-010; Appendix E- Procedures (replaced Hazardous Chemical Deliveries and Transfers Rev. 11); Appendix J - OSRO Contracts (replaced with Clean Harbors information); Appendix N - ICP Record of Change; Appendix O - PE Certification & Limitations (added 5 year review page and Limitations; Appendix J – Limitations; Appendix R - Distribution List	December 2007	BCJ

Note: *This plan will be reviewed annually or in accordance with established regulations and/or revised as necessary. This form is to be used to record any changes to this plan.*

Appendix O

PE Certification, PE 5-Year Review, & Limitations

SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN

NEWINGTON ENERGY, LLC
NEWINGTON, NEW HAMPSHIRE FACILITY

5-YEAR REVIEW

5-Year Review

This SPCC Plan must be reviewed at least every 5-years from the date the facility becomes subject to the SPCC rule, or for an existing facility, 5-years from the date of the last review.

Newington Energy must amend the Plan within six (6) months of the review to include more effective prevention and control technology if (1) such technology will significantly reduce the likelihood of a discharge, and (2) if such technology has been field-proven at the time of the review. Implementation of such amendments is required within six (6) months following the amendment.

Any technical amendments to the SPCC Plan must be certified by a Professional Engineer.

Certification of Completion of 5-Year SPCC Review

" I have completed a review and evaluation of the plan for Newington Energy, Newington, New Hampshire Facility on 8/31/07 (date) and the Plan will not (~~will~~ will not) be amended as a result".

Alan J. Douglass
Signature

Alan J. Douglass
Name

Environmental Manager
Title

8/31/07
Date

SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN

NEWINGTON ENERGY, LLC
NEWINGTON, NEW HAMPSHIRE FACILITY

MANAGEMENT APPROVAL/ENGINEERING CERTIFICATION

Newington Energy Management Approval

This SPCC Plan has been reviewed by appropriate Officers or Managers of the Facility and will be implemented as described herein.

Alan J. Douglass
Signature

Alan J. Douglass
Name

Environmental Manager, CED
Title

10/15/02
Date

Engineer's Certification

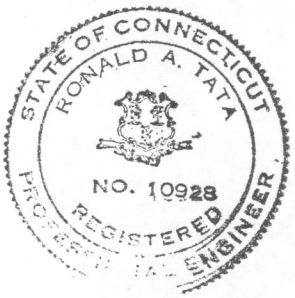
I hereby certify that the facility described has been examined under my direction and, being familiar with the requirements of 40 CFR Part 112-SPCC Rule (effective 8/16/02), attest that this SPCC Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards. Procedures for inspections and testing have been established and this Plan is adequate for the facility.

The inspection was performed on April 26, 2002 and this report reflects conditions observed at the time of this visit. Information on secondary containment volumes and structures have been provided to Triton by Newington Energy, LLC. This certification is based on the assumption that this information is correct. Neither Triton nor R.T. Engineering has confirmed secondary containment volumes provided by Newington Energy, LLC.

Mr. Ron Tata (R.T. Engineering)
Registered Professional Engineer

R A Tata
Signature

10/15/02
Date



Registration No. 10928 State: Connecticut

WALDRON ENGINEERING, INC.
37 Industrial Drive
Exeter, NH 03833

Telephone (603) 772-7153
Facsimile (603) 772-7693

August 8, 2003

Newington Energy, LLC
99 Old Dover Road
Newington NH 03801

Attention: Mr. Salvatore Boccuzzi

Subject: Review of sizing of Secondary Containment Tank

Encl: Secondary Containment Analysis Calculation
25-year 24-hr Rainfall (NOAA)
Precipitation 24-hour Peak Calculation (Pease AFB observations)
Pease AFB Observations raw data (1992-2001)

Dear Sal:

At your request, Waldron Engineering has undertaken a review of the Secondary Containment Design of the Fuel Oil Storage Tank at the Newington Energy Facility. The attached calculation shows that the secondary containment tank has sufficient storage for the combined volumes of a 24-hr rain event and the net working capacity of the primary fuel oil tank. The scenario analyzed takes into account the final level in the secondary containment tank when the primary fuel oil tank containment failure occurs and is followed by a 24-hr rain event.

The design net working capacity of the tank is 939,451 gallons (Fuel Oil at a specific gravity of .85) and the design capacity of the secondary containment tank is 1,118, 912 gallons (Fuel Oil at a specific gravity of .85). The height of the secondary containment tank is 25.75 feet or 309 inches. The volume of the fuel oil primary tank will occupy the first 259.44 inches of the secondary containment. This leaves 49.56 inches of tank height for storm storage.

NOAA lists the 25-year 24-hour rainfall as 5" for the zone, which includes Newington, NH. We also have access to the peak precipitation observed at Pease AFB in the last 10-years. The most conservative (highest rainfall) estimate is the 7" (6.99) observed in October of 1996 at Pease. Using this number and the area of the secondary (exposed area not storage) containment tank, we can calculate the volume of rain as 5.8 million cubic inches.

Using the 49.56 inches of available tank height for storm storage calculated above, and using the area of the secondary (storage not total area) containment tank, we can calculate the available volume as 17 million cubic inches.

As the available tank volume is larger than the volume of rain from the peak 24-hr total, the tank design is adequate to handle the analyzed scenario. If you have any questions please do not hesitate to call.

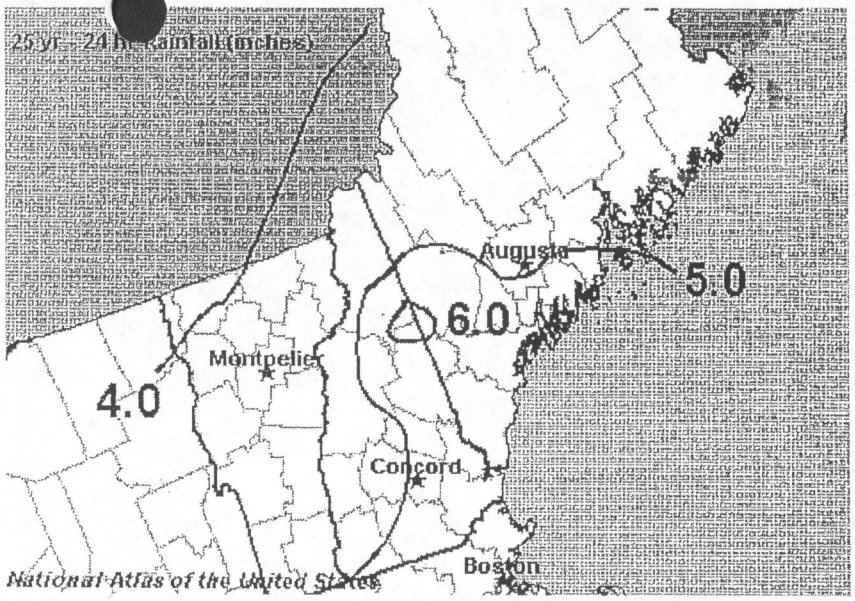
Very truly yours
Waldron Engineering, Inc.

Jeremy P. Smith, P.E.

Analysis of Tank Volume			
Design Net Working Capacity	939,451	gallons	(Fuel Oil, Spec Gravity .85)
Analysis of Containment Volume			
Design Capacity	1,118,912	gallons	(Fuel Oil, Spec Gravity .85)
Secondary Containment			
	1.1910	Containment/Working Volume	
	19.10%	Containment exceeds Working Volume	
	25.75	(feet)Design Liquid Level	
	43452.89	gallons/foot	
	3621.07	gallons/inch	
	939,451	gallons of Fuel Oil	
	259.44	inches occupied	
	309.00	height of tank (inches)	
	49.56	inches remaining	
Storm event sizing			
	836,044	Area of containment tank	
	343,642	Area of containment tank with cut out for primary tank	
	836,044	(in^2) exposed area of containment tank	
	7	(in) 24-hr highest rainfall observed at Pease	
	5,852,307	in^3 of rain (using 10-year high at Pease)	
	343,642	(in^2) containment tank storage area	
	49.56	(in) Tank height remaining	
	17,030,930	in^3 of space for storm storage	

Check
119% of overdesign
25.75 feet
4.89 overdesign feet
58.71 overdesign inches

Available storm storage of the tank exceeds the largest volume of rain in a 24-hour period



http://www.erh.noaa.gov/er/gyx/hydro/24hour25.gif

8/7/2003

WALDRON ENGINEERING, INC.
37 Industrial Drive
Exeter, NH 03833

Telephone (603) 772-7153
Facsimile (603) 772-7693

October 15, 2003

Newington Energy, LLC
99 Old Dover Road
Newington NH 03801

Attention: Mr. Salvatore Boccuzzi

Subject: Letter of August 8, 2003

Dear Sal:

At your request, Waldron Engineering has evaluated the concerns raised in the subject letter by the reviewing authority. The attached calculation shows that the secondary containment tank has sufficient storage for the combined volumes of a 24-hr rain event (10 yr-high or 25-yr region storm design) and the capacity (Net or Nominal) of the primary fuel oil tank. The scenarios analyzed take into account the final levels in the secondary containment tank when the primary fuel oil tank containment failure occurs and is followed by a 24-hr rain event.

The design net working capacity of the primary tank is still 939,451 gallons, while the nominal capacity is 1,015,162 gallons. The design capacity of the secondary containment tank is still 1,118, 912 gallons. This leaves 103,750 gallons of capacity (or 13,869 ft^3 of volume) for storm water on a nominal basis or 179,461 gallons of capacity (or 23,990 ft^3 of volume) on a working capacity basis.

The rainfall volume is either 3,388 ft^3 (10-yr observed peak) or 2,420 ft^3 (25-year NOAA storm event for region).

The available tank volume is larger than the volume of rain from the peak 24-hr total, no matter what assumptions are taken. Therefore the evaluation of the concerns raised by the reviewing authority is that they do not impact the results of the review. If you have any questions please do not hesitate to call.

Very truly yours
Waldron Engineering, Inc.

Jeremy P. Smith, P.E.

Newington Energy

Assumptions:
Primary Tank Capacity is nominal capacity of shell
Storm Event is 10-yr highest data from Pease

Storm Water Capacity=Secondary Containment Volume-Nominal Capacity of Oil (Primary Tank)

Secondary Cont. Volume=	1,118,912	gallons	
Primary Cont. Volume=	1,015,162	gallons	(nominal)
	103,750	gallons	
or	13869.4	ft^3	
Therefore V(storm contain)=	13869.4	ft^3	

Therefore Storm Water Capacity is = 13,869 ft^3

Storm Water volume

PI= 3.141604
D=Diameter of Secondary Containment Tank
or
D= 86'0" 86 ft

H(storm)=highest recorded storm event (10yr)
or
H= 0'7" 0.583333 ft

V(storm)= 3388.482 ft^3

Since V(storm)<V(storm contain), the tank can hold the oil and 24-hr rain total

Assumptions:
Primary Tank Capacity is working capacity
Storm Event is 10-yr highest data from Pease

Storm Water Capacity=Secondary Containment Volume-Nominal Capacity of Oil (Primary Tank)

Secondary Cont. Volume=	1,118,912	gallons	
Primary Cont. Volume=	939,451	gallons	(nominal)
	179,461	gallons	
or	23990.47	ft^3	
Therefore V(storm contain)=	23990.47	ft^3	

Therefore Storm Water Capacity is = 13,869 ft^3

Storm Water volume

PI= 3.141604
D=Diameter of Secondary Containment Tank
or
D= 86'0" 86 ft

H(storm)=highest recorded storm event (10yr)

Newington Energy

		or
H=	0'7"	0.583333 ft
V(storm)=		3388.482 ft^3

Since V(storm)<V(storm contain), the tank can hold the oil and 24-hr rain total

Assumptions:
Primary Tank Capacity is nominal capacity
Storm Event is 25-yr storm design for region

Storm Water Capacity=Secondary Containment Volume-Nominal Capacity of Oil (Primary Tank)

Secondary Cont. Volume=		1,118,912 gallons	
Primary Cont. Volume=		1,015,162 gallons	(nominal)
		103,750 gallons	
	or	13869.4 ft^3	
Therefore V(storm contain)=		13869.4 ft^3	

Therefore Storm Water Capacity is = 13,869 ft^3

Storm Water volume

PI=	3.141604	
D=Diameter of Secondary Containment Tank		
	or	
D=	86'0"	86 ft

H(storm)=highest recorded storm event (10yr)

		or
H=	0'5"	0.416667 ft
V(storm)=		2420.344 ft^3

Since V(storm)<V(storm contain), the tank can hold the oil and 24-hr rain total

Newington Energy

Design Calcs (Nominal)				Design Calcs (Working)			
PI=		3.141604		PI=		3.141604	
D:=Diameter of the tank				D:=Diameter of the tank			
		66	ft			66	ft
H:=(tot) Hs + Va				H:=TCL-DCL			
where Hs=shell course height				where TCL=Top capacity limit			
		or					
Hs1=	9'11"	9.916667	ft	TCL=DLL-25 inches			
Hs1=	9'11"	9.916667	ft			25	in
Hs1=	9'11"	9.916667	ft	DLL= Design Liquid Level			
						or	
Hs1=	9'11"	9.916667	ft	DLL=	39'8"	39.66667	ft
Therefore (tot) Hs=		39.66667	ft	Therefore TCL=		37.58333	ft
where Va=Vertical Leg of the top angle				where BCL=Bottom Capacity Limit			
Va=0 sloped bar				BCL=	10.5 inches		
Therefore Va=		0	in	Therefore BCL=		10.5	in
And Therefore H:=		39.66667	ft	And Therefore H:=		36.70833	ft
V(nom)=(PI/4)*D^2*H				V(work)=(PI/4)*D^2*H			
Therefore V(nom)=		135707.9	ft^3	Therefore V(work)=		125586.8	ft^3
or		1015162	gallons	or		939451.4	gallons

LIMITATIONS

This Integrated Contingency Plan (ICP) and associated Emergency Response Action Plan (ERAP) has been developed by Triton Environmental, Inc. based, in part, upon information provided by GECS. Triton Environmental provides no warranty regarding the accuracy and completeness of this information. Some of the principal information provided by GECS includes but is not limited to:

- Secondary Containment Volumes
- Storm Water Drainage System
- Waste Water Collection and Treatment System
- OSRO Information
- Equipment Specifications
- Operations Information
- Station Plot Plan Details and Facility Drawings
- Sensitive Resource Information

In addition, portions of this ICP and ERAP were developed entirely by GECS and incorporated, with the approval of GECS, directly into the text of these plans. Triton Environmental provides no warranty regarding the accuracy and completeness of this information. Some of the principal information provided by GECS and incorporated into this ICP and ERAP includes but is not limited to:

- Emergency Response Procedures ERP-00 through ERP-010
- Emergency Phone Contacts
- Response Management System
- Reporting and Notification Requirements
- Incident Documentation
- Training and Exercises
- Response Critique and Plan Review
- Prevention
- Operating Procedures

Triton has not performed field calculations to verify secondary containment volumes provided by GECS. Secondary containment for storage tanks was provided by GECS for use in this ICP. The professional certification of the SPCC component of this plan assumes this information is true and accurate.

This Plan was prepared specifically for GECS and Newington Energy. No person or other body shall be entitled to rely upon or use information presented in this Report without written consent of GECS, Newington Energy, and Triton Environmental, Inc.

Appendix P

Applicability of Substantial Harm

APPLICABILITY OF SUBSTANTIAL HARM CRITERIA/CERTIFICATION

NEWINGTON ENERGY, LLC
NEWINGTON, NEW HAMPSHIRE FACILITY

Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? Yes _____ No X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation? Yes _____ No X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? Yes X No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake? Yes _____ No X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years? Yes _____ No X

Certification Statement

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate and complete.

Name: Alan J. Douglass

Signature: Alan J. Douglass

Title: ~~Operations Manager~~ Environmental Manager, CED

Date: 10/23/02

Appendix Q

Maintenance, Testing, and Inspections

MAINTENANCE, INSPECTION, AND TESTING

This appendix includes incident prevention procedures (e.g., inspections and preventive maintenance) and equipment descriptions (e.g., leak detection) for above ground storage tanks (ASTs), drum storage areas, and equipment oil reservoirs that are in place at the NEL facility.

Areas where oils and hazardous materials are stored are maintained in a clean and orderly state and sufficient aisle space is provided to facilitate the movement of personnel and response equipment. GECS controls access to the facility through the use of fencing, locked gates, 24-hour surveillance and perimeter inspections.

The following sections describe:

- specific inspection and testing activities conducted by various departments at the NEL facility;
- inspection procedures and follow-up activities; and
- procedures for recording the results of inspections and maintenance activities.

Material Storage Unit Inspections and Testing Program

Clean Water Act regulations (SPCC and OPA-90) affecting this facility require specific inspection and testing of oil and hazardous material storage units (e.g., bulk storage tanks and facility transfer operations). Additionally, 40 CFR 112 requires facilities subject to the SPCC and FRP regulations to conduct inspections of petroleum and hazardous material storage areas. The New Hampshire Dept of Environmental Services Env WM 508.03(b) requires weekly inspections.

Tanks are inspected, gauged, and monitored to ensure that there are no tank or fuel dispensing system leaks to the environment. Emergency and spill response equipment available at the site are inspected quarterly to ensure that they

are properly operating and available for use (see Appendix Q for Quarterly Spill Kit/ Neutralization Inspection Log).

GECS personnel and contractors inspect areas where hazardous waste and hazardous materials are accumulated and stored to detect any leaks or deterioration in tanks or containers holding the materials**.** Inspections referenced in this section are important because they verify compliance by visual determination that applicable standards are met. Additionally, the inspections ensure that the appropriate procedures and practices are employed to protect workers and the environment.

Inspections have been organized according to general requirements pertaining to the following: hazardous waste/waste oil storage areas, aboveground storage tanks, and SPCC/FRP inspections. The inspections are further divided into area-specific inspections, which are performed by either GECS personnel or contractors under the direction of EHS personnel. Each area is inspected using checklists developed for the facility Storm Water Pollution Prevention Plan (SWP3). A completed inspection checklist is maintained electronically, however a printed copy is signed by the inspector and kept on file for five (5) years. A description of the area-specific inspections including tank type, frequency, and record keeping is presented in the following sections.

Wastewater Treatment Chemical ASTs.

Frequency of Inspection: Weekdays.

Inspection Description: System walkthrough in order to locate any possible leaks from tanks, pipes, pumps or malfunctioning equipment. Emergency and spill response equipment also are inspected as described in Appendix H to ensure that they are available for use.

Inspection Record: Tanks are included in the inspections checklist which is conducted three times per shift and maintained by the EH&S.

Powerhouse - Fuel Oil and Lubricating Oil ASTs.

Frequency of Inspection: At least once Every 12 hours.

Inspection Description: Visual inspection of fuel oil and lubricating oil ASTs and associated pump and piping systems recorded on rounds log (completed once per shift). Emergency and spill response equipment also are inspected as described in Appendix H to ensure that they are available for use.

Inspection Record: Power Plant Rounds Log (once per shift)

Powerhouse - Emergency Generator Diesel/Diesel Fire Pump ASTs.

Frequency of Inspection: Monthly.

Inspection Description: GECS inspects emergency generators and associated tanks.

Inspection Record: Technician's Report maintained by EH&S.

SPCC/FRP Inspections

Oil and/or Hazardous Material Storage Tanks, Containers and Equipment Reservoirs Located Site Wide.

Frequency of Inspection: Monthly.

Inspection Description: Visual inspection for leaks and condition of the tank, container, or equipment reservoir as well as associated piping, underlying concrete, and secondary containment system, as appropriate. Emergency and spill response equipment also are inspected as described in Appendix H to ensure that they are available for use.

Inspection Requirements for Tanks Storing Oil or Hazardous Materials

The purpose of the inspections is to ensure that tanks storing petroleum products or hazardous materials (e.g., virgin oils, used oils, and chemical solutions) are in good working condition and are not leaking or malfunctioning. Because on-site petroleum storage thresholds are exceeded and SPCC and FRP Plans are required under 40 CFR 112, inspections of the petroleum and hazardous materials storage tanks are required. In accordance with the definitions found in 40 CFR 112, a tank refers to any container that stores oil or hazardous materials, including bulk storage tanks, process tanks, drums, or equipment reservoirs. As such, the inspection procedures described below for storage tanks apply to process tanks, drums and equipment reservoirs as well.

The items that are covered during the storage tank inspections are as follows:

Condition of Tanks - during the inspection, observe the exterior walls and insulation of any ASTs, the fillports of ASTs, and aboveground portions of USTs to determine if there is any bulging, swelling, or separation. Discrepancies in any of the below mentioned items will be noted and reported to facility management.

The following detailed information related to the tank inspections will be recorded on the SWP3:

- Check tanks for leaks, specifically looking for:
  - drip marks;
  - discoloration of tanks;
  - puddles containing spilled or leaked material;
  - corrosion;
  - cracks; and
  - localized dead vegetation.
- Check foundation for:

- cracks;
- discoloration;
- puddles containing spilled or leaked material;
- settling;
- gaps between tank and foundation; and
- damage caused by vegetation roots.

- Check piping for:
  - droplets of stored material;
  - discoloration;
  - corrosion;
  - bowing of pipe between supports;
  - evidence of stored material seepage from valves or seals; and
  - localized dead vegetation.

Condition of Secondary Containment

Secondary Containment will be inspected to ensure that the structure is in good condition. Discrepancies in any of the below mentioned items will be noted and reported to facility management. The following detailed information related to the secondary containment inspections will be recorded on the SWP3:

- Dike or berm system.
  - Level of precipitation in dike/available capacity;
  - Operational status of drainage valves;
  - Dike or berm permeability;
  - Debris;
  - Erosion;

- Permeability of the earthen floor of diked area; and
- Location/status of pipes, inlets, drainage beneath tanks, etc.

- Secondary containment
  - Cracks;
  - Discoloration;
  - Presence of spilled or leaked material (standing liquid);
  - Corrosion; and
  - Valve conditions.
- Retention and drainage ponds
  - Erosion;
  - Available capacity;
  - Presence of spilled or leaked material;
  - Debris; and
  - Stressed vegetation.

Condition of ancillary and monitoring/leak detection equipment - observe piping, supports, flanges, valves, and gauges to determine if there are any leaks around connections to/from the tank and whether equipment appears to be in good working condition (i.e., properly functioning and free from corrosion and condensation).

Signage - check that proper signs are located in vicinity of the tank, including “No Smoking” and “Flammable” in the vicinity of flammable materials storage. For used oil storage tanks, a sign with the words “WASTE OIL” in capital letters at least one inch high and meeting NSPA Code No. 704 must be posted, and the current accumulation start date marked (not to exceed 90 days from the date the first drop of used oil entered the tank following the last pump out).

If a finding is discovered during the inspection, the person assigned to conduct the inspection must note the finding on the form and report the problem promptly to EHS. EHS will work with the applicable organization to ensure that any inspection findings are addressed and corrected promptly.

Inspections and Maintenance Results Recording

Checklists used by GECS during their inspections are provided in the facility ICP and SWP3.

Records documenting inspections and preventive maintenance are signed by the inspector and maintained by GECS management personnel responsible for the particular inspection and preventive maintenance activity. Inspection for tank integrity for the bulk petroleum storage tank (Tank 21) are completed as specified in API - 653. Tank testing records are maintained and compared to determine whether weaknesses are developing in the structural integrity of the tank.

Records of oil storage and hazardous material unit inspections and testing will be kept at the facility for a period of at least 5 years.

Appendix Q (cont.)

Example Inspection Logs

- **Spill Kit/ Neutralization Kits (Quarterly)**
- **Waste Area Inspections (Weekly)**
- **Stormwater Inspection (Weekly)**
- **Eyewashes (Weekly/Monthly)**
- **Stormwater Pre-discharge Inspection**
- **SCBA Inspections (Monthly)**
- **Fire Extinguishers (Monthly)**

PowerSmith Cogeneration Plant

Quarterly Safety Inspection Checklist

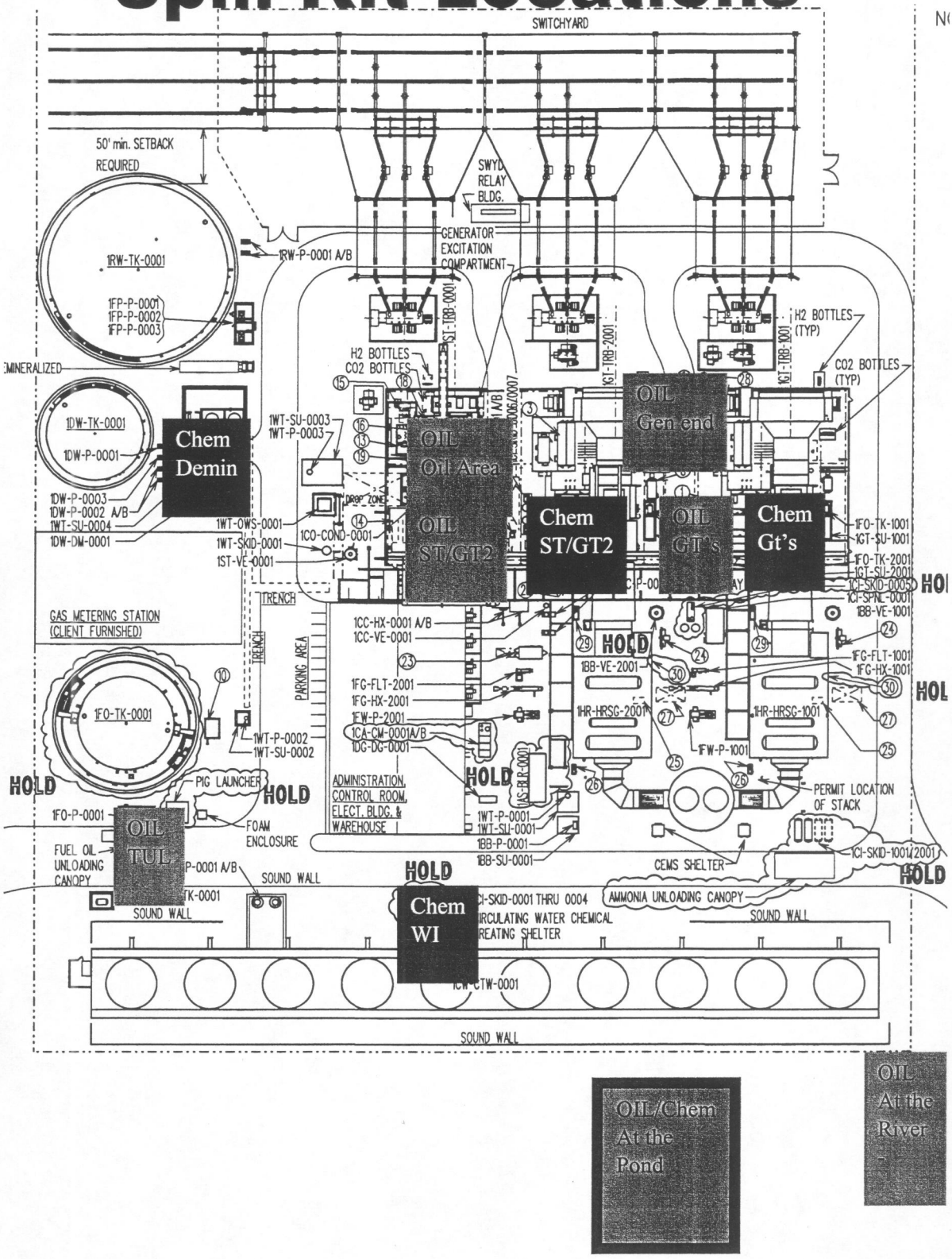
Spill Kit/Neutralizing Kits

Date: _____ Inspected By: _____

Description/Identification of Equipment Inspected	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Corrective Action
Chemical Spill Kits					
Demin Bldg (by Overhead Door)			8/5/2003		
Between ST and GT2 (Back Door)			8/5/2003		
Between GT's (Back Door)			8/5/2003		
Water Treat (In room Adj to Scale Inh)			8/5/2003		
Detetnion Pond (By Slit wall far end)			8/5/2003		
Oil Spill Kits					
Oil Area (under steamer)			8/5/2003		
Between ST and GT2 (Back Door)			8/5/2003		
Between GT's (Back Door)			8/5/2003		
Truck Unloading Rack			8/5/2003		
River (Inside intake Bldg Left Side)			8/5/2003		
Detetnion Pond (By Slit wall far end)			8/5/2003		
Overpack by HazWaste Bldg			8/5/2003		
Overpack by Lab Water Bldg					

Signature: _____

Spill Kit Locations



Each Yellow Spill Kit Contains:
(with different fabric based on the chemicals)

- **100 Sorbent Pads (Oil in 1 kit/Chemical in Other)**
- **10 Sorbent SOCS**
- **5 Sorbent Pillows**

At least 50% of stated Quant. on hand at all times

Waste Area Inspections - wk 32 8-5-03

Hazardous Waste in Storage Area	**Yes**	**No**
1. Is there currently any waste in the hazardous waste storage area? (If the answer is **NO**, skip to Question 15.)	Yes	
Container Condition	**Yes**	**No**
2. Are all containers closed?	Yes	
3. Are all containers in good condition and showing no signs of leaks or deterioration such as dents, rust, bulges, etc.?	Yes	
4. Are only new containers being used to store hazardous waste?	Yes	
If **NO** was answered to any of the above questions, document corrective actions _____		
Container Marking	**Yes**	**No**
6. Are all containers labeled properly as to:		
a) the words “Hazardous Waste” marked on container (if hazardous)	n/a	
b) container contents	Yes	
c) accumulation start date? (if hazardous)	n/a	
7. Are all labels visible?	Yes	
8. Have all containers of hazardous waste been in the storage area less than 90 days?	Yes	
If **NO** was answered to the above questions, document corrective actions taken._____		
Building/Waste Compatibility Requirements	**Yes**	**No**
9. Is there adequate aisle space to walk between rows of drums?	Yes	
10. Are the number of containers being stored in the area less than the maximum container capacity? Blue Bldg < 20 55 gal drums or < 1000 gal total 11. Are incompatible wastes separated from each other?	Yes yed	
12. Are ignitable wastes grounded?	n/a	
13. Are ignitable and/or reactive wastes being stored at least 50 feet (15 meters) from the property line?	Yes	
If **NO** was answered to the above questions, document corrective actions taken._____		
Emergency Response Equipment	**Yes**	**No**
14. Is a telephone, radio, or other communication system easily accessible in case of an emergency?	Yes	
15. Are the communication system(s) in working order?	Yes	
16. Is there a complete spill kit located nearby which includes: in warehouse		
gloves	Yes	
boots	Yes	
protective coveralls	Yes	
respirator	Yes	
spark proof shovel	Yes	
unused absorbents	Yes	
empty salvage drum?	Yes	
17. Is the following safety equipment located nearby: In warehouse		
fire extinguishers	Yes	
eye wash	Yes	
safety shower?	Yes	
18. Is the safety equipment in working order?	yes	
If **NO** was answered to the above questions, document corrective action _____		

SWPP Inspections

	Tank #	Drains OK	Dike/Foundation OK	Spill Supplies	Tank OK	Piping OK	OK?	CA-Req'd	Date	Week	Time	Insp by	Details	Location
1DG-DG-001	EG	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Emergency Gen	Admin
1EM-TF-G	Ax5	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Fuel Oil Heater Trans	Admin
1EM-TF-F	AX4	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Aux Trans 4	Admin
1EM-TF-E	AX3	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Aux Trans 3	Admin
1EM-TF-D	AX2	y	ok	Various locations see map	no	y	yes	ok	7/31/2003	30	1800	RMF	Aux Trans 2	Admin
1EM-TF-C	AX1	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Aux Trans 1	Admin
1CI-SKID-002	Bleach	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Biocide Injection	Front of CT
1CI-SKID1001	NH3	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Ammonia tank dike	HRSG 1
1EY-TF-A	GST1	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Gen S-Up 1 for GT1	GST 1
1EM-TF-A	SST1	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Station Service	GST 1
1GT-TRB-1001	IST1	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Isolation (LCI) Main	GST 1
1EY-TF-B	GST2	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Gen S-Up 2 for GT2	GST 2
1EM-TF-B	SST2	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Station Service	GST 2
1EY-TF-C	GST3	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Gen S-Up for Steam	SST 1
?????	IST2	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Spare Iso	SST 1
1-WT-OWS-001	OWS	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Oil Water Sep	So of Steamer
1-FOTK-001	LSD1	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	1mm gal LSD tank	FO tank
1-FO-P-001	Trk unload	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Truck Unloading Pad	FO tank
1CI-SKID-002	NaOCl	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Bleach tank	Cooling Tower
1-FP-002	Fire Pump	y	ok	Various locations see map	y	y	yes	ok	7/31/2003	30	1800	RMF	Diesel Fire Pump	In Pump Bldg.
n/a	Pond	y	ok	Various locations see map	n/a	y	dry	ok	7/31/2003	30	1800	RMF	detention pond	behind cooling tower
n/a	river		wet				yes	ok	7/31/2003	30	1800	RMF	River Trans	On road to pier
n/a	Glycol	n/a	ok	various locations see map	ok	ok	yes	ok	7/31/2003	30	1800	RMF	Glycol drums dike	between Stand Elec room

Form ammended shop, dumpster and overall have been removed
Added glycol drums

EyeWashes

			2003	2003	2003	2003	2003	2003
#	**Location**	**issues**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
EW1	Admin - Maint Shop							
EW2	Turbine - GT 2 Steps to Acc							
EW3	Turbine - GT 2 Gen End Batteries							
EW4	High Yard - Battery Charger							
EW5	Turbine - GT 1 Gen End Batteries							
EW6	NH3 tanks							
EW7	Water Lab							
EW8	Phosphate							
EW9	Water Treat for Cooling Tower							
EW10	Demin back door							
EW11	Demin - Train 1							
	Weekly							
	Flush Unit							
	Check for clear access							
	Monthly							
	Check for: Nozzles clogged, broken or missing							
	Check for: Activating valve inoperable, check linkages							
	Check for: Improper water pressure—too high or low							
	Check for: Low fluid levels in self-contained eyewashes							
	Check for: Foreign particles in bowl or basin							
	Check for: Nozzle dust covers not installed							

Stormwater PreDischarge Chk-Lst

	A	B								
Pit #	Visual signs of contam?	Odors or any other signs of contam?	If A,B do not discharge. Consult EH&S 1st	NOTES	Date	Time	Insp by	Corrective Actions- Req'd	Details	Location
1EM-TF-c,d,e,f, g									5 Aux Xfrms Pits	Behind Admin
1CI-SKID1001									Ammonia tank dike	NH3 tanks
1EY-TF-A, 1EM-TF-A, 1GT-TRB-1001									GT 1, LCI, Station Svc	Train 1
1EY-TF-B, 1EM-TF-B									GT2, Station Svc	Train 2
1EY-TF-C									Gen S-Up for Steam, Spare LCI	Steamer
1-WT-OWS-001									Oil Water Sep	At Oil Water Sep
1-FOTK-001				see note #1					1mm gal LSD tank	FO Tank Berm
1-FO-P-001				see note #1					Truck Unloading Pad	FO tank Unloading
1CI-SKID-002									Bleach tank	Cooling Tower
No #									Trans at river	River Xfrmr
Wire/Pipe Trench # 1									Access by on CT side	Admin to CT
Wire/Pipe Trench # 2									Access by sump 2 and So. corner Admin	Oil sump 2 to admin under road
Notes #1	If discharge from FO tank berm or Truck Unloading is oily and needs to go to OWS a sample needs to be taken from the Clean Water sump,									
	After the water has been pumped through the oil water seperator. This is to prove that the OWS is working properly. Give sample to EH&S									

Complete this sheet prior to pumping pits.

APPENDIX I

SCBA Inspection
Inspect Monthly & After Each Use

SCBA Location: _____ Unit / ID # _____
Date: _____ Inspected by: _____

Functional check of SCBA	Sat / Unsat	Corrective Action	Inspector Initials
Alarm Works Properly			
Regulator Functions Properly			
Facepiece: Clean, not distorted, no tears, no cracks			
Elastic Parts: Pliable no deterioration			
Head Harness: Clean, no tears, no cracks no missing pieces. No loss of elasticity. No wear from buckle.			
Lens: Clean & Clear, no cracks, sealed to mask			
Exhalation Valve: Clean, good seal, no tears, tight			
Inhalation Valve: Clean, good seal, no tears, tight			
Cylinder: No dents or gouges, fits tightly in band			
Cylinder Hydro Test Date _____			
Gage: Cylinder >90% full, check gage face, indicator			
Harness: Clean, no wear, fully extended			
Demand Valve O-ring: clean, no tears, seated properly			
SCBA Cleaned and reassembled after inspection & drying			

If any defects are found DO NOT USE RESPIRATOR.
in the respirator to your supervisor immediately for repair or replacement .

Fire Ext

								2	0	0	3				
EXT	Tag	Location	Detail Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	A1	Admin	FRONT DOOR												
2	A2	Admin	CTR ROOM												
3	A3	Admin	MCC												
4	A4	Admin	EAST ADMIN												
5	A5	Admin - Elec Room	EA ELEC												
6	A6	Admin - Elec Room	NO ELEC												
7	A7	admin	NO ADMIN BY AIR												
8	A8	Admin - maint	NO MAINT												
9	A9	admin - whouse	NO WHOUSE												
10	A10	admin - whouse	SO WHOUSE												
11	A12	Admin - kitchen	Kitchen												
12	T1	E Turbine	Door by Hydraulic skid												
13	T2	W Turbine	Door by Lube Oil skid												
14	T3	E Turbine	OH Door between ST and 2												
15	T4	E Turbine	Door between St and 2												
16	T5	E Turbine	OH Door Between 2 and 1												
17	T6	E Turbine	Door between 2 and 1												
18	T7	N Turbine	Door by H2 Inlet												
19	T8	N Turbine	Oh Door by Unit 1 Fire CO2												
20	T9	N Turbine	OH Door by HRSG Unit 1												
21	T10	N Turbine	Door by HRSG unit 1												
22	T11	E Turbine	Door from 2 and 1 to water lab												
23	T12	E Turbine	Door from St and 2 to Heat Exc.												
24	T13	Between St and 2	Floor by center column												
25	T14	Between 2 and 1	Floor by center column												
26	T15	Between 1 and North Wall	Floor by center column												
27	T16	Turbine Platform IP end	Up on deck IP end of ST												
28	T17	Turbine Platform top of main stairs	Top of main stairs to Turbine Deck												
29	D1	Demin	Front door by city water												
30	D2	Demin	MCC by computer												
31	D3	Demin	by OH Door Neut Tank End												
32	W1	Water Treat	BY front door												

EXT	Tag	Location	Detail Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
33	AX1	Aux Boiler	Back Door												
34	AX2	Aux Boiler	Front door by controls												
35	h1	high yard	left door high yard												
36	h2	high yard	Right door high yard												
37	CEM1	CEMS for Unit 1	Inside door												
38	CEM2	CEMS for Unit 2	Inside door												
39	HW	HazWaste Bldg	In cabinet on cooling tower side												
		Inspections													
		Portable fire extinguishers must be visually inspected monthly. The inspection should assure that:													
		1. Fire extinguishers are in their assigned place;													
		2. Fire extinguishers are not blocked or hidden;													
		3. Fire extinguishers are mounted 30" or hip high from ground													
		4. ABC - Dry Powder type check - Pressure gauges show addequate													
		4b. CO2 extinguishers Fullness determined by weighing or "hefting"													
		5. ABC Dry Chem - flip over and bang on bottom with hand to loosen													
		6. Pin and seals are in place;													
		7. Fire extinguishers show no visual sign of damage or abuse;													
		8. Nozzles are free of blockage. (dirt, bugs, debris etc…)													

Appendix R

Distribution List

Newington Energy, LLC
Newington, New Hampshire

Distribution List for Integrated Contingency Plan (ICP)/
Emergency Response Action Plan (ERAP)
Risk Management Plan - Process Safety Management (RMP-PSM)

Group	Name	Plans	Paper, CD , Both	Copy #	Revision #
Newington Energy/GECS - Facility Copy	Argyros, David	ICP/ERAP/RMP-PSM	Both	1	2.0
Newington - Fire Dept *	Greenleaf, Chief	ICP/ERAP/RMP-PSM	CD	2	2.0
Newington - Police Dept	Loomis, Chief	ICP/ERAP/RMP-PSM	CD	3	2.0
Seacoast Tactical Emergency Response Team	(Sent with Newington - Fire Dept. Transmittal)	ICP/ERAP/RMP-PSM	CD	4	2.0
US EPA Region I	Jarrell, Alan	ICP/ERAP	Both	5	2.0
NHDES - ARD	Scott, Robert	RMP-PSM	CD	6	2.0
EFSEC Committee	Drew, Timothy	ICP/ERAP/RMP-PSM	CD	7	2.0
ConEd - EH&S	Douglass, Alan	ICP/ERAP/RMP-PSM	CD	8	2.0
ConEd - Asset Mgt Group	Douglass, Alan	ICP/ERAP/RMP-PSM	CD	9	2.0
GECS - EH&S	Chang, Kathy	ICP/ERAP/RMP-PSM	CD	10	2.0
Portsmouth Regional Hospital	Lotis, Nancy and Duffy, William	ICP/ERAP/RMP-PSM	CD	11	2.0
US Coast Guard (USCG)	COTP	ICP/ERAP/RMP-PSM	CD	12	2.0
United Oil Recovery	Carabetta, David	ICP/ERAP	CD	13	2.0
Clean Harbors	Hickman, Hawk	ICP/ERAP	CD	14	2.0
Triton Environmental	Simonetta, Paul	ICP/ERAP/RMP-PSM	Both	15	2.0

* Chief Greenleaf also serves as primary contact for Local Emergency Planning Committee (LEPC)

Appendix S

Material Safety Data Sheet

Sprague
PUT OUR ENERGY TO WORK FOR YOU.

195 Hanover St., Portsmouth, NH 03801
Tel (603) 431-1000 FAX (603) 431-6371
An Axel Johnson, Inc. Company

MATERIAL SAFETY DATA SHEET

#2 FUEL OIL

Revised 11/98. Reformatted 4/99.

SECTION 1 - MATERIAL IDENTIFICATION

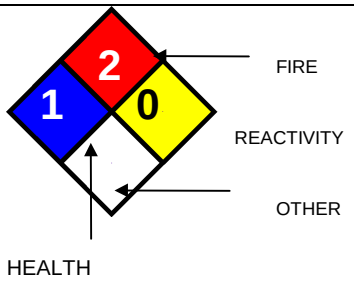
PRODUCT / CHEMICAL NAME	**#2 FUEL OIL**
PRODUCT / CHEMICAL SYNONYMS	HOME HEATING OIL, DIESEL OIL, OFF-HIGHWAY FUEL OIL
CHEMICAL FAMILY / FORMULA	BRANCHED CHAIN PETROLEUM HYDROCARBONS/VARIABLE
MATERIAL USE OR OCCURRENCE	DISTILLATION PRODUCT

24 HOUR EMERGENCY INFORMATION

Sprague: 603-431-1000
Chemtrec: 800-424-9300

HMIS / NFPA HAZARD RATING

4=EXTREME
3=SERIOUS
2=MODERATE
1=SLIGHT
0=MINIMAL



SECTION 2 - INGREDIENTS

COMPONENT	%	C.A.S. NO.	OSHA PEL	OSHA STEL	ACGIH TLV	OTHER
NO. 2 FUEL OIL Consisting of a complex mixture of parafinic, olefinic, and naphthenic hydrocarbons, plus fused polycyclic hydrocarbons (C10 and higher) as benzene solubles.	>99	68-476-335	5 mg/M^3 (mineral oil mist)		5 mg/M^3	
Polycyclic Hydrocarbons	<1	08-007-452	0.2 mg/M^3 (benzene solubles as coal tar pitch volatiles).		0.2 mg/M^3	

SECTION 3 – PHYSICAL DATA

BOILING POINT:	340°-675°F (171°-357°C)	**% VOLATILITY BY VOLUME:**	Greater than 50%
VAPOR PRESSURE (mm Hg):	1 mm Hg @ 68 F (20 C)	**VAPOR DENSITY (AIR = 1):**	Greater than 5.
SPECIFIC GRAVITY (H20 = 1):	.876	**SOLUBILITY IN WATER:**	Insoluble.

EVAPORATION RATE (n-butyl acetate = 1): None Determined.

APPEARANCE & ODOR: Green, slightly viscous liquid, petroleum odor.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 126-204 F (52-96 C) (Tag. Closed Cup) | **AUTOIGNITION TEMP:** 494 F (257 C)

FLAMMABILITY LIMITS IN AIR (% BY VOL.) **LEL:** 0.6 **UEL:** 7.5

EXTINGUISHING MEDIUM: Foam, carbon dioxide, dry chemical, halon, and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Use supplied-air breathing equipment for enclosed areas. Cool exposed containers with water spray. Continue water spray until entire container contents are cool. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of storage tank due to fire (subject to the fire chief's directions).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not mix or store with strong oxidants. Do not store or pour near sources of ignition. Do not pressurize, cut, heat, weld, or expose to sources of ignition. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back.

SECTION 5 - HEALTH DATA

TOXICOLOGICAL TEST DATA:	Oral Rat; LD50	**RESULTS:** 14,500 mg/kg (NIOSH RTECS July 1993)
	ACUTE HEALTH EFFECTS	**CHRONIC HEALTH EFFECTS**
INHALATION	Mist or vapor may cause respiratory tract irritation. CNS depressant. High levels may cause giddiness, headache, dizziness, nausea, vomiting, lack of coordination, narcosis, stupor, coma, and unconsciousness.	Prolonged exposure may cause dizziness, weakness, weight loss, anemia, nervousness, pains in the limbs, peripheral numbness, and parasthesias. Renal failure possible. Degenerative changes of liver and kidneys may occur after prolonged exposure to high concentrations.
INGESTION	Irritation, giddiness, vertigo, headache, anesthetic stupor, CNS depression, coma and death.	No data available
SKIN CONTACT	Drying, cracking and defatting dermatitis. Direct contact may cause extreme irritation with severe erythems and edema with blistering and open sores. Absorbtion of large amounts may result in narcosis.	Repeated or prolonged exposure may cause irritation, dermatitis, and a rash of pimples and spots.
EYE CONTACT	Irritation is possible. However, animal studies indicate that irritation is unlikely.	No data available.

FIRST AID PROCEDURES

INHALATION: Remove from vapor to fresh air. If brea d give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Keep affe n and at rest. Administration of oxygen should be performed by qualified personnel. Get medical attention immediately.

INGESTION: DO NOT INDUCE VOMITING or give anything by mouth to an unconscious person. When vomiting occurs, keep persons head lower than head to prevent pulmonary aspiration. Get medical attention immediately.

SKIN CONTACT: Remove jet fuel soaked clothing. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). If irritation develops, seek medical aid.

EYE CONTACT: Flush eyes immediately with large amounts of water, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). If irritation develops, seek medical aid.

TOXICOLOGICAL DATA	Kerosene generally contains benzene which has been designated a carcinogen by the National Toxicology Program (NTP), the International agency for Research on Cancer and the Occupational Safety and Health Administration. Benzene may produce blood changes which include reduced platelets, red blood cells, and white blood cells; also aplastic anemia, and acute nonlymphatic leukemia. Benzene has produced fetal death in laboratory animals and caused chromosome changes in humans and mutation changes in cells of other organisms. Health effects attributable to benzene aren't know to occur in humans exposed to kerosene. Kerosene has caused kidney injury in male rats only. No comparable health hazard for kidney disease is know to occur in humans. An epidemiology study or workers exposed to two isomers of trimethylbenzene had symptoms of nervousness, tension and anxiety, and asthmatic bronchitis. In addition, after inhalation of 60 ppm measured as hydrocarbon vapor, the works' peripheral blood showed a tendency to hypochromic anemia and a deviation from normal in the coagulability of the blood. Exposure of pregnant rats during gestation to toluene at levels of 250 ppm and higher produces some maternal toxicity and feto toxicity. A lifetime inhalation study in rats did not show any toxic effects even at the high dose of 300 ppm. Behavioral signs of hearing loss were observed in rats exposed to toluene subchronically at levels of 1000 ppm or more. Comparable effects have not been reported in humans.

SECTION 6 - REACTIVITY DATA	
STABILITY:	Stable under normal temperatures and pressures.
HAZARDOUS POLYMERIZATION:	Hazardous polymerization has not been known to occur under normal temperatures and pressures.
CONDITIONS TO AVOID:	May be ignited by heat, sparks, or flame. Vapors may travel to a source of ignition and flash back. Vapor explosion hazard indoors, outdoors, or in sewers.
INCOMPATIBLES:	May explode or react violently when exposed to oxidizing materials.
TYPICAL DECOMPOSITION PRODUCTS:	Thermal decomposition may release various hydrocarbons and hydrocarbon derivitaves incouding carbon dioxide, water, organic acids, and aldehydes.

SECTION 7 - SPECIAL PROTECTION		
RESPIRATORY PROTECTION:		Use with adequate ventilation. For large spills or when completing work in confined spaces, use a mask with an organic vapor cartridge or positive pressure air supplied (SCBA) unit.
VENTILATION	**LOCAL EXHAUST:** **MECHANICAL (General):**	Indoors: Lab hood recommended Outdoors: Work upwind. Recommended for use in enclosed or semi-enclosed work areas.
EYE PROTECTION:		Splash goggles or shields with safety glasses
PROTECTIVE GLOVES:		Neoprene, PVC
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:		Employee must wear appropriate impervious clothing and equipment to prevent repeated or prolonged skin contact with this substance.

SECTION 8 - SPECIAL PRECAUTIONS	
PRECAUTIONS FOR SAFE HANDLING AND STORAGE:	Avoid excessive inhalation or skin contact. Isolate from sources of ignition.
SPILL AND LEAK PROCEDURES:	Shut off ignition sources (no smoking, shut off flames or flares in hazard area). Isolate hazard area and restrict entry. If properly trained, proceed with the following measures: 1. For small spills, take up with sand or other absorbent material and place into containers for later disposal; and, 2. For large spills, dike far ahead of spill to prevent entrance into water courses and/or ground water. Observe local, state, and federal governmental regulations.
WASTE DISPOSAL METHOD	1. Under EPA RCRA (40 CFR 261.21) If this product becomes a waste material intended for disposal and has a flash point below 140 F, it would be ignitable hazardous waste (waste code number D001). Refer to latest EPA or state regulations regarding proper disposal. 2. Under EPA RCRA (40 CFR 261.21) If this product becomes a waste material intended for disposal and has a TCLP benzene concentration greater than 0.5 PPM, it would be considered a toxic waste (waste code number D018). Refer to latest EPA or state regulations regarding proper disposal.

SECTION 9 - DOT HAZARDOUS MATERIAL INFORMATION

PROPER SHIPPING NAME: FUEL OIL (#2)		**LABEL:** FLAMMABLE	**REQUIRED PLACARDING:** FLAMMABLE OR COMBUSTIBLE / 1993
HAZARD CLASS: CLASS 3 (Flammable liquid)	**PACKING GROUP (P.G.):** III	**N.A/U.N. NUMBER:** NA 1993	
HAZARDOUS SUBSTANCE / RQ: NOT AVAILABLE		**SHIPPING DESCRIPTION:** FUEL OIL (#2), 3, NA 1993, PG III	

NOTE:
This product may be re-classed as a combustible liquid when shipped domestically, by land only. If re-classed as a combustible liquid, this product is unregulated by DOT when shipped in non-bulk quantities.

SECTION 10 - EPA SARA TITLE III INFORMATION

SECTION 311/312 HAZARD CLASSIFICATION:	**ACUTE:** YES		**CHRONIC:** YES
	FIRE: YES	**PRESSURE:** NO	**REACTIVE:** NO

SECTION 11 - REMARKS

None

SECTION 12 - ADDITIONAL REGULATORY DATA

REPORTABLE COMPONENTS: FEDERAL EPA	**%**	**SARA RQ**	**CERCLA RQ**	**RCRA NO.**
#2 FUEL OIL	100	-----	-----	
* Under EPA RCRA (40 CFR 261.21) If this product becomes a waste material intended for disposal and has a flash point below 140 F, it would be considered ignitable hazardous waste (waste code number D001) with a SARA / CERCLA RQ of 100 pounds.				D001*
** Under EPA RCRA (40 CFR 261.21), if this product becomes a waste material intended for disposal and has a TCLP benzene concentration greater than 0.5 PPM, it would be considered a toxic waste (waste code number D018) with a SARA / CERCLA RQ of 10 pounds.				D018**