

**OglethorpePower***An Electric Membership Corporation*

December 10, 2014

David K. Lehman  
Office of Pipeline Safety (Attn: Response Plan Review)  
Pipeline and Hazardous Materials Safety Administration  
U.S. Department of Transportation  
PHP-5, East Building, 2<sup>nd</sup> Floor, E22-321  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Re: Hartwell Energy Facility – DOT PHMSA Sequence Number 1995  
Operator Number 31849  
Facility Response Plan submittal

Dear Mr. Lehman:

Enclosed, in electronic format (cd), is the revised Hartwell Energy Facility Response Plan. We appreciate your patience as we completed significant revisions to this FRP to track more directly with the PHMSA requirements.

As indicated, based on the letters received from DOT on the earlier version of this Plan, we determined that reorganizing the material to track with Part 194 Appendix A would facilitate your review. We also included complete documents in the Appendices such as the Emergency Response Action Plan and the Spill Prevention Control and Countermeasures Plan, making this a very large document. You will note that the common subject matter of these documents results in a high degree of duplication.

To summarize the facts, the Hartwell Oil Pipeline has never experienced a discharge, having been in operation since 1994, and has been very seldom used (once – in 2008). OPC does not anticipate its use at any time in 2014, and it is anticipated that OPC will permanently end use or potential use of the Hartwell Oil Pipeline officially in 2015.

Please contact me directly at 770-270-7536 if you have questions regarding this Plan submittal, and I will facilitate any necessary response.

Respectfully submitted,

Laurel Heacock

Director, Contracts & Regulatory Oversight

Cc: Mike McCollum  
Doug Fulle  
Sam Najim



# FACILITY RESPONSE PLAN (FRP)



**Oglethorpe Power Corporation**  
**Hartwell Energy Facility**  
415 Smith-McGee Highway  
Hartwell, Georgia 30643

**DOT PHMSA Sequence Number: 1995**  
**Operator Number: 31849**

December 2014

**HARTWELL ENERGY FACILITY RESPONSE PLAN REVISION LOG**

<b>REVISION NUMBER</b>	<b>DATE OF REVISION</b>	<b>REVISION (SPECIFY)</b>	<b>(REVISER) NAME</b>
1	November 2009	Revised all sections with new ownership information and included DOT PHMSA OPS requirements	Mike McCollum
2	February 2010	As needed to reflect changes. Update Facility management, personnel phone numbers, changes due to training and annual table top.	Sam Najim
3	May 2010	Addition of Spill Deployment Response Plan and remove reference to Hartwell Energy Limited Partnership.	Sam Najim
4	January 2011	Revise Site Plan to include underground pipe from storage tanks to units.	Sam Najim
5	February 2012	Updates names and phone numbers	Mike McCollum and Sam Najim
6	July 2012	Revised WCD, Primary Response Contractor, and updated names and phone numbers	Mike McCollum and Sam Najim
7	April 2013	Updated names and phone numbers and DOT PHMSA requirements	Mike McCollum and Sam Najim
8	July 2014	Updated names, phone numbers and added new environmental incident report form.	Mike McCollum and Sam Najim
9 Unsubmitted draft	August 2014	Updated Section 1 and Section 1.7 and Appendix C as per DOT 194.107(b)(1)(ii) and 194.107(c)3.	Mike McCollum and Sam Najim
9	December 2014	Revised to track with 49 CFR Part 194 Appendix A and to address DOT letters	Laurel Heacock

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## Hartwell Energy Facility Response Plan Cover Sheet

### General Information

Owner/Operator of Facility: Oglethorpe Power Corporation

Facility Name: Hartwell Energy

Facility Address (street address or route): 415 Smith McGee Hwy

City, State, and U.S. Zip Code: Hartwell, GA 30643

Facility Phone No.: 706-376-7010

Latitude (Degrees: North): (b) (7)(F), (b) (3)

Longitude (Degrees: West): (b) (7)(F), (b) (3)

Dun & Bradstreet Number: 002877103

North American Industrial Classification System (NAICS) Code: 221112

Largest Aboveground Oil Storage Tank Capacity (Gallons): (b) (7)(F), (b) (3)

Number of Aboveground Oil Storage Tanks: 5

Maximum Oil Storage Capacity (Gallons): (b) (7)(F), (b) (3)

Worst Case Oil Discharge Amount (Gallons): (b) (7)(F), (b) (3)

Facility Distance to Navigable Water. Mark the appropriate line.

0-1/4mile       1/4-1/2mile       **1/2-1 mile**       >1 mile

**DOT PHMSA OPS CROSS REFERENCE TABLE**

<b>Cross-Reference to 49 CFR Part 194<sup>1</sup> &amp; Appendix A</b>	
<b>49 CFR Part 194.107 General Response Plan Requirements</b>	<b>Facility Response Plan Section</b>
<b>SECTION ONE – INFORMATION SUMMARY</b>	
Name & Address of Operator	Section 1.2.1
Response Zone Categorization, State, County	Section 1.3
Name & Number of Qualified Individual	Section 1.2.3
Description of WCD/Response Zone	Section 1.3.2
Response Zone Section	Section 1.3.3
Basis for Determination of Significant & Substantial Harm	Section 1.3.4; Appendix A
Oil type and volume – WCD	Section 1.4; Appendix A
Certification of means to respond effectively to WCD or substantial threat of WCD	Section 1.7; Appendix A
<b>SECTION TWO – NOTIFICATION PROCEDURES</b>	
State and Local Notification Requirements	Section 2.4.2; 2.3.4
Prioritized Checklist of Requisite Notifications	Section 2.3.4; 2.4.2, Appendix A
List of those to be notified in case of a discharge & whether by operations personnel or other personnel	Section 2.3.3
Procedures for Notifying Qualified Individuals	Section 2.3.3
Primary and Secondary Notification Communication Methods	Section 2.4
Information to Be Provided in Initial and Follow-up Notifications	Section 2.3.1
<b>SECTION THREE – SPILL DETECTION AND ON-SCENE SPILL MITIGATION MEASURES</b>	
Methods of Initial Discharge Detection	Section 3.1; 3.7
Required, prioritized pipeline emergency response procedures	Section 2.2, 2.5
Listing of equipment that may be needed to respond to activities on land and navigable waters	Section 3.9; Appendix A
Availability, location, and contacts numbers to obtain equipment on a 24-hour basis	Section 2.3.3; 4.9
Personnel, location, telephone numbers, and responsibilities to obtain equipment on a 24 hour basis	Section 2.3.3; 4.9
<b>SECTION FOUR – RESPONSE ACTIVITIES</b>	
Operating personnel responsibilities to initiate and supervise response actions pending the arrival of the Qualified Individual	Section 4.3; Appendix D
Qualified Individual's responsibilities & authority	Section 4.3.1
Procedures for coordinating actions with OSC	Section 4.3.2; 4.8
OSRO's available to respond to a WCD to the maximum extent practicable	Section 1.7; Appendix A
Listing of equipment available through OSRO's	Appendix A
Listing of OSRO's trained to operate equipment and staff for the first seven days of a response	Appendix A

<b>SECTION FIVE – LIST OF CONTACTS</b>	
List of 24 Hour Contact Names & Numbers for all individuals and entities operators must contact	Section 5.1; 5.2; 5.3; Appendix E
List of 24 Hour Contact names & Numbers for Qualified Individuals	Section 5.1; 5.2; Appendix E
List of 24 Hour Contact Names & Numbers for applicable insurance representatives or surveyors for the areas of operation	Section 5.4
List of 24 Hour Contact Names & Numbers for persons or organizations to notify for activation of response resources	Section 5.1; 5.2; 5.3; Appendix E
<b>SECTION SIX – TRAINING PROCEDURES</b>	
Description of Training Programs & Procedures	Section 6
<b>SECTION SEVEN – DRILL PROCEDURES</b>	
Description of Drill Programs & Procedures	Section 7; Appendices A & D
Announced and Unannounced Drills	Section 7.1.5; Appendices A & D
Drill Types and Frequencies	Section 7.1
Tabletop Drills	Section 7.1.4
OSRO field equipment deployment drills	Section 7.1.5
Drill that exercises entire response plan	Section 7.1.5
<b>SECTION EIGHT – RESPONSE PLAN REVIEW &amp; UPDATE PROCEDURES</b>	
Procedures complying with 49 CFR §194.121	Section 8.1;8.2
Procedures to review and evaluate plan effectiveness after a WCD	Section 8.3;8.4
<b>SECTION NINE – RESPONSE ZONE APPENDICES</b>	
	Because there is only one Response Zone, the information required as “Section 9” in the Appendix to the FRP requirements is interspersed in the Core Document of this Plan, as noted below
Name & Telephone of Qualified Individual	Section 1.2.3; Appendix E
Notification Procedures	Section 2
Spill Detection & Mitigation Procedures	Section 3
Name, Address, Phone of OSRO	Section 1.7; Appendix E
Response Activities & Equipment Equipment & Supplies Necessary to Meet 194.115 OSRO Personnel to staff response activities	Section 4; Appendix A
Names & Telephone Numbers of Federal, State, & Local Agencies expected to assume pollution response responsibilities	Section 2.3.4; Appendix E
WCD Volume Method of Determining, with calculations	Section 1.4; Appendix A
Map that clearly shows: Location of WCD Distance between line section and: Each potentially affected drinking water intake, lake, river	Appendix A

<p>and stream within a 5 mile radius of the line section  Each potentially affected environmentally sensitive area within a one mile radius of the line section  A piping diagram and plan-profile drawing of the line section</p>	
<p>Emergency response data including the name, description, physical and chemical characteristics, health and safety hazards, and initial spill-handling and firefighting methods  That meet 29 CFR §1910.1200 or 49 CFR §172.602</p>	Section 1.5; Appendix A

<sup>1</sup>49 CFR Part 194; US DOT PHMSA OPS – Response Plans for Onshore Oil Pipelines

## **INTRODUCTION**

### **BACKGROUND, PURPOSE, SCOPE AND OBJECTIVES**

This Facility Response Plan (FRP or “Plan”) is consistent with, and compatible for use in conjunction with the National Contingency Plan (NCP); Region IV Area Contingency Plan (ACP); USEPA, USCG, and US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS) regulations; and applicable state and local regulations. A table cross-referencing the US DOT PHMSA OPS plan components is provided in the preface to this document. The NCP and ACP will be reviewed on an annual basis to determine if updates to this Facility-Specific Response Plan are required based on changes to those plans.

### **Background**

As amended, section 311(j)(5) of the Federal Water Pollution Control Act (“Clean Water Act”) requires owners or operators of certain facilities to prepare and submit facility response plans for certain structures, including onshore piping and structures used for the transfer of oil that could reasonably be expected to cause substantial harm or significant and substantial harm to the environment by discharging oil or a hazardous substance into or on the navigable waters of the United States, adjoining shoreline, or the exclusive economic zone. The Environmental Protection Agency (EPA) was given authority to regulate non-transportation onshore oil facilities. The Secretary of the Department of Transportation (DOT) has been delegated the authority to review and approve response plans for “transportation related” facilities that could reasonably be expected to cause significant and substantial harm to the environment.

As discussed in Section 1.2.4 , below, OPC has determined that oil releases from its Hartwell Oil Pipeline have the possibility of causing substantial harm to the environment according to 49 CFR §194.101 and §194.103(c)(5) of the DOT rules. This document was prepared to address the DOT’s requirements for a significant and substantial harm FRP.

### **Purpose**

The purpose of this Plan is to comply with Pipeline and Hazardous Material Safety Administration (PHMSA) requirements for a facility response plan to reduce the adverse environmental impact in the event of an oil discharge from the Hartwell Oil Pipeline. The Plan follows guidance provided in 49 CFR Part 194 Appendix A regarding organization of a Facility Response Plan (FRP), and to describe the procedures and resources OPC would employ to respond, to the maximum extent applicable, to a worst case discharge or to the substantial threat of such a discharge. The table located in the front of this Plan tracks the location of each required element in the Plan consistent with the guidelines in 49 CFR Part 194 Appendix A. Implementation of the provisions in this Plan is intended to support the safety of facility personnel, the surrounding community and

environment, and prevent or mitigate discharges, in the unlikely event a spill threat or actual spill occurs. In summary, this plan is intended to meet the following objectives:

Provide spill response requirements for one 8,520' x 12 " buried steel pipeline serving one electric generating facility located in Hart County, Georgia

Provide a responsive and effective roadmap for actions to be taken in the remote event of an oil spill from the Hartwell Energy Facility pipeline.

Fully comply with DOT/PHMSA rules pertaining to Facility Response Plans.

Because the Hartwell pipeline is not in use, has in fact been used only one time in the last six years (in 2008), and is as well scheduled to be abandoned or decommissioned in 2015, the possibility of such a release is virtually nil. Nonetheless, the intent of this document is to comply with DOT/PHMSA requirements and to provide the requisite information prescribed in the regulation.

### **Scope**

The scope of this Facility Response Plan includes:

Contacts, notification, plan updates, training, drills and response requirements for spills associated with the OPC Hartwell Energy Facility Oil Pipeline

The geographic area covered by this plan is considered to be one Response Zone (Zone 1); therefore there are no "Response Zone Appendices." All information for this Zone, which consists of one line section, is included in this core plan.

### **Plan Availability**

This FRP will be maintained at the following locations:

Hartwell Energy Facility  
415 Smith-McGee Highway  
Hartwell, GA 30643

and

Oglethorpe Power Corporation  
2100 East Exchange Place  
Tucker GA 30084

In addition, each Qualified Individual (QI) and designated alternate identified in this Plan will maintain a personal copy of this FRP.

## **SECTION 1 – INFORMATION SUMMARY**

### **1.1 Plan Overview**

This Facility Response Plan (FRP) was prepared to be consistent with the information in the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300) (NCP) and the applicable Area Contingency Plans (ACPs) in effect at the time of this revision.

#### **1.1.1 National Contingency Plan**

The National Contingency Plan (NCP) (as described in 40 CFR 300) describes national priorities and organization for oil spill response. Individual company oil spill response plans are required by regulation to be consistent with the NCP. This plan has been prepared to be consistent with the NCP.

#### **1.1.2 Area Contingency Plan**

The Area Contingency Plan (ACP) is required by OPA 90 (Oil Pollution Act of 1990). It must be consistent with the NCP and it describes appropriate response actions necessary "to remove a worst case discharge of oil or a hazardous substance, and to mitigate or prevent a substantial threat of such discharge...." The ACP is periodically updated and serves as a resource for all responders within the area. In particular, the ACP contains thorough analyses and descriptions of appropriate response strategies for every segment of coastline with the area covered by the ACP.

#### **1.1.3 Certification of Consistency with ACP and NCP**

OPC certifies that it has reviewed the NCP and the ACPs available for review at the time of this revision and that this FRP is consistent with every plan available for review. The executed certification is included in Appendix A of this FRP.

### **1.2 Facility Response Plan Information Summary<sup>1</sup>**

#### **1.2.1 Name and Address of Facility Operator**

Oglethorpe Power Corporation  
2100 East Exchange Place  
Tucker, Georgia 30084  
Main Emergency Number: 770-270-7600

#### **1.2.2 Facility Site Address**

415 Smith-McGee Highway  
Hartwell, Hart County, Georgia 30643  
Facility Phone Number: 706-376-7010  
FAX: 706-376-7063

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<sup>1</sup> Because this plan addresses only one pipeline and one response zone, this information summary supplants the need for a Response Zone Appendix.

### 1.2.3 Hartwell Pipeline Qualified Individual and Alternate Contact Information

A Hartwell Pipeline Qualified Individual (“QI”) and an Alternate Qualified Individual have been designated for the purposes of implementing this FRP. They are available on a 24 hour basis and the table below shows 24 hour contact information for both.

<b>NAME</b>	Mike McCollum – Primary QI	Kenn Pittman – Alternate QI
<b>TITLE</b>	O&M Supervisor	Combustion Turbine Technician
<b>OFFICE PHONE</b>	706-856-8009	(706) 376-7010
<b>MOBILE PHONE</b>	(b) (6)	
<b>FAX</b>	706-376-7063	706-376-7063
<b>EMAIL</b>	mike.mccollum@opc.com	<u>henry.pittman@opc.com</u>
<b>HOME ADDRESS</b>	(b) (6)	
<b>WORK ADDRESS</b>	415 Smith McGee Rd Hartwell, Georgia 30643	415 Smith McGee Rd Hartwell, Georgia 30643
<b>EMERGENCY PHONE</b>	404-683-2502	(706) 988-6179
<b>RESPONSE TRAINING EXPERIENCE</b>	Hazmat, HAZWOPER, LO/TO, Spills and Leaks, Environmental Awareness, Fire Safety	Hazmat, HAZWOPER, LO/TO, Spills and Leaks, Environmental Awareness, Fire Safety

### 1.2.4 Facility Overview

Oglethorpe Power Corporation owns and operates the electric generating facility and the associated pipeline addressed by this Plan. The Hartwell Energy Facility, constructed in 1994, lies within a site of approximately 300 acres. No substantial modifications or expansions of the facility have occurred since original construction. It is located about eight miles southeast of Hartwell, Georgia and approximately 1.0 mile west of the Savannah River.

The Hartwell Energy Facility is staffed Monday to Friday from 7:00 AM to 5:00 PM and at other times if the combustion turbine units are operating. There are currently seven (7) employees at the site. Hartwell Energy is a peak energy generation facility and uses natural gas with supplementary No. 2 fuel oil for firing two combustion turbines, generating electricity during peak demand periods. It can receive natural gas and No. 2 fuel oil from pipeline and No. 2 fuel oil by tank truck.

The 12 inch Hartwell oil pipeline, also located in Hart County, Georgia is in one 8,520 feet long section and one identified Response Zone for oil spill planning purposes. The sole Response Zone is referenced as “Zone 1” throughout this document. Hartwell Energy utilizes two 2.1 million

gallon aboveground No. 2 fuel oil storage tanks. The tanks are located within a lined earthen containment area with a containment capacity of (b) (3), (b) (7)(F). The tanks share this containment area with a third (b) (3), (b) (7)(F) which contains demineralized water. The contents of the two No. 2 fuel oil tanks are individually controlled but contents may be transferred between the two tanks for facility purposes of inventory control and management. The tanks' contents are observed electronically from the administration building along with fail safe overflow protection and high level alarms. The tanks are observed and inspected daily for problems, spills and leaks during routine documented facility Walkdown Checklist tours. Operations personnel receive routine ongoing training in the proper and safe loading, unloading, maintenance and spill response activities associated with these tanks.

The tanks may be filled from an off-site pipeline or by on site tank truck delivery. Formalized and documented operational procedures for both filling processes are followed by operational personnel. Copies of the transfer procedures, HEF-OP (JB)-01 and HEF-OP (JB)-02, are maintained onsite in the administration building.

When a delivery is required, the operator accepts direct feed from the pipeline or delivery from the tank truck. Delivery is attended at all times by a facility operator. Tank trucks are off-loaded in an area designed to contain any release of materials. Trucks are inspected prior to allowing transfer operations to proceed. Deliveries are not accepted if initial inspection of the tank truck indicates that the vehicle is unfit or the potential for a spill exists. Operators continuously monitor the transfer of fuels. Automatic high level alarms on the storage tanks allow operators to stop transfer of fuel to prevent overfilling of the storage tank.

Fuel oil is pumped from the storage tanks to the turbines automatically. Control of pumps and valves is performed in the operator control room using computer monitored and controlled systems. Irregularities in fuel flow are indicated by the computer or observed by the operator so adjustments or systemic shut-down can be performed. Manual handling of fuel oil is not a normal procedure.

The No. 2 fuel oil tank farm has a secondary containment volume of approximately (b) (3), (b) (7)(F), approximately 150% of the largest tank in the tank farm. Down gradient of the tank farm containment is a storm water detention pond that holds approximately (b) (3), (b) (7)(F) additional gallons. This pond could collect spilled materials from the site, including overflow or releases from the tank farm containment should a containment breach or failure occur. The pond could handle approximately 85% of the volume of the largest tank in the tank farm. Procedures for the transfer of oil, via pipeline, is meticulously controlled at both pipe ends. Operations personnel coordinate and communicate during the entire event. The potential for a release to the environment during transfer of fuels from a tank truck or pipeline is low.

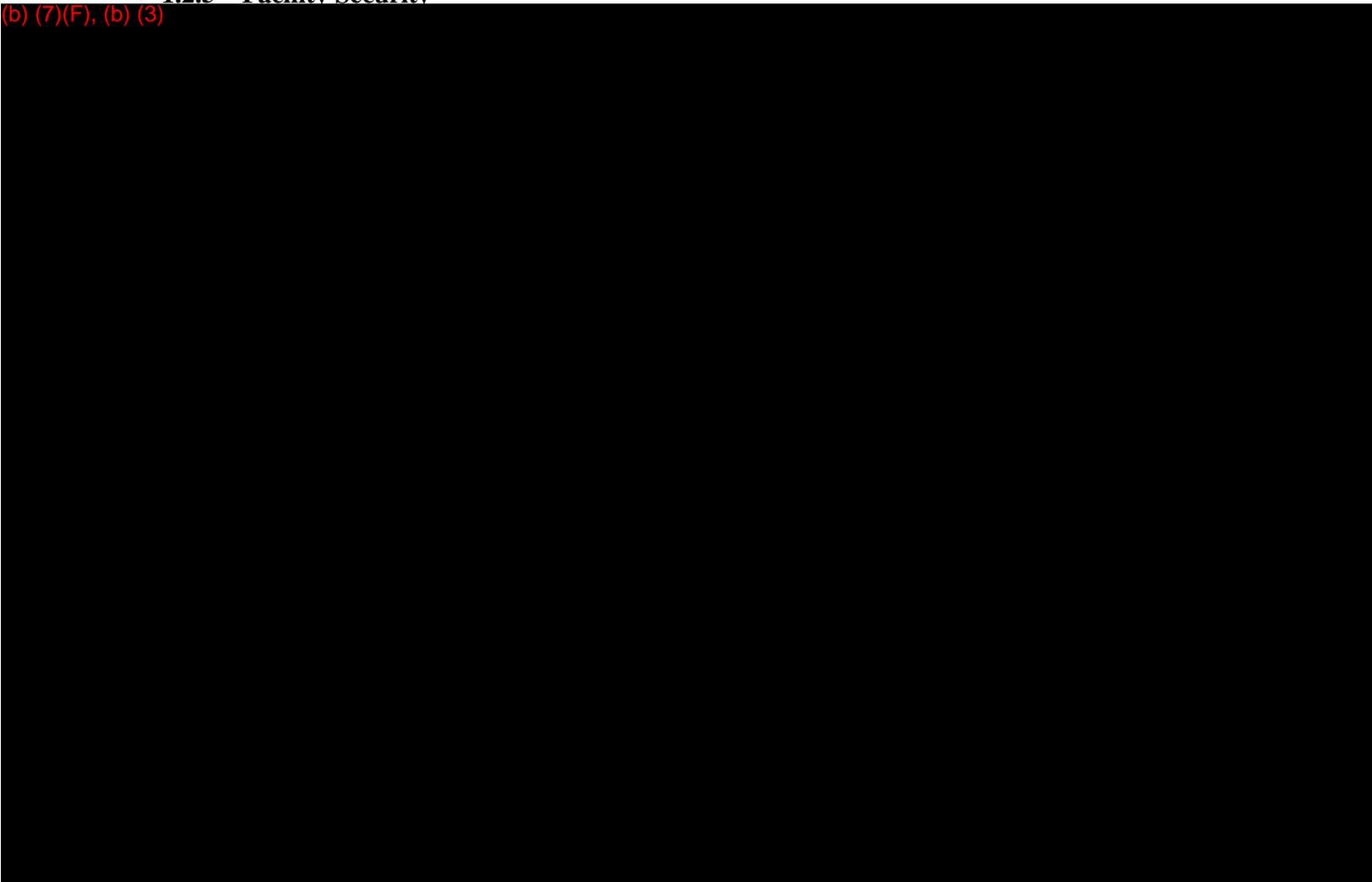
The drawings and diagrams for the Hartwell Facility, listed below, are located in Appendix A.

Figure 1	Site Location Map
Figure 2	Site Topographic Map
Figure 3	Site Plan
Figure 4	Site Drainage Plan
Figure 5	Site Evacuation Plan

- Figure 6      Receiving Pipeline Diagram  
Figure 7a     Map of Sensitive Areas (5-mile radius of Facility)  
Figure 7b     Map of Sensitive Areas (1-mile radius of Facility)

## 1.2.5 Facility Security

(b) (7)(F), (b) (3)



## 1.3 Response Zone Summary

### 1.3.1 Pipeline Overview

Hartwell Energy owns and operates the 8,520' X 12" buried steel pipeline. The pipeline is used to transfer Fuel Oil from the Plantation Pipe Line Company terminal located at the intersection of U.S. Highway 29 and County Road 539 to the plant site storage tanks. The pipeline runs from the terminal thence adjacent to County Road 539 via easements granted from property owners. It then traverses beneath State Highway 181 onto the Hartwell Energy plant site whereby it emerges at a tie-in point. It then runs under ground and terminates at the two above-ground Fuel Oil storage tanks. The off- site pipeline is buried to a minimum depth of 48" and transitions on-site to a 24" depth. It is protected with sacrificial anodes and externally coated with coal tar enamel throughout. Coordination of activities involving both Plantation and Hartwell Energy personnel

December 2014

are required whenever fuel is transferred through the pipeline. Fuel levels are carefully monitored, both visually and electronically.

### 1.3.2 Response Zone 1

One Hartwell oil pipeline Response Zone has been identified for oil spill planning purposes. The single pipeline, located in Hart County, Hartwell, Georgia, began oil storage start-up in 1994. The Response Zone where a worst case discharge could cause substantial harm to the environment is referenced in this plan as “Zone 1”, or “Response Zone.” Because there is only one pipeline and one response zone, no “Response Zone Appendices” are included in this plan, and the information required in an Appendix when there are multiple Response Zones and line sections is incorporated in this core Plan.

### 1.3.4 Response Zone 1 Line Section

Response Zone 1, Line Section 1, incorporates the roughly one mile-long pipeline footprint, from the pipeline terminal to the facility storage tanks. Information pertaining to Response Zone 1, Line Section 1, which encompasses the entire footprint of the Hartwell Oil Pipeline, is incorporated into the body of this core plan.

### 1.3.5 US DOT Significant and Substantial Harm; Operator’s Statement

According to US DOT PHMSA OPS regulations found in 49 CFR 194, the Hartwell Energy Facility’s 12” buried pipeline is classified as a “Significant and Substantial Harm” Facility located in a High Volume Area, “Savannah River, Hartwell, GA”, as per 49 CFR 194 Appendix B, and therefore can be expected to cause **Significant and Substantial Harm** in the extremely remote case of a worst case discharge. OPC’s certification of the applicability of these criteria is included in Appendix A.

## 1.4 Worst Case Discharge (WCD)

Worst case discharge or “WCD” means the *largest foreseeable discharge of oil, including a discharge from fire or explosion, in adverse weather conditions*. The Response Zone WCD volume was calculated by OPC according to DOT rules at 49 CFR §194.105. The basis for the calculation is described below. The calculation information is included in Appendix A of this Plan

### 1.4.1 WCD Volume

The *worst case discharge* for the Hartwell pipeline was determined based on requirements of 49 CFR §194.105. When utilized, which has been seldom, the pipeline has carried No. 2 fuel oil. The potential for a spill at this facility is relatively low, particularly considering how seldom the pipeline is used.

As defined in 49 CFR §194.105, the *Worst Case Discharge* is defined as the largest volume, in barrels (cubic meters) of the following:

- (1) *The pipeline’s maximum release time in hours, plus the maximum shutdown response time in hours (based on historic discharge data or in the absence of such historic data, the operator’s best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline) plus the largest drainage*

*volume after shutdown of the line section(s) in the response zone expressed in barrels (cubic meters); or*

- (2) The largest foreseeable discharge for the lines section(s) within a response zone, expressed in barrels (cubic meters), based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventive action taken, or*
- (3) If the response zone contains one or more breakout tanks, the capacity of the single largest tank or the battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels (cubic meters).*

*Operators may claim prevention credits for breakout tank secondary containment and other specific spill prevention measures....*

(b) (7)(F), (b) (3)

. Calculations of the DOT Pipeline WCD volume are presented in Appendix A. The WCD calculations are assumed to be in a storm/bad weather event. The most likely scenario would involve a spill during a transfer operation. Should that occur, personnel would be available at both ends of the pipe to mitigate the spill. Also, should the line rupture upon site property, the available containment structures and facilities would effectively minimize any spill impacts. However, spills occurring at mid pipeline rupture would require more extensive response actions from outside contractors and/or additional regulatory assistance entities.

#### **1.4.2 Historical Discharge**

Since the Hartwell Energy Facility began operations in 1994, there have been **no** reportable pipeline-related releases or oil discharges.

#### **1.4.3 Risk of WCD from Natural Disaster**

The potential for a spill resulting from natural disaster is low. The Hartwell facility is not within a 100 year flood plain, therefore the risk of a spill caused by flooding is low. The facility is not located in an active geologic zone, therefore the risk of damage and release because of earthquake or other geological disturbance is low. The potential for releases caused by unusual weather conditions is also low. The tanks and feed systems are grounded and protected from lightning strikes. The tanks are located in a low lying area of the facility which further reduces the potential for lightning damage. Tornadoes and high winds could potentially damage buildings and equipment at the facility. The potential for damage and release from the steel storage tanks is relatively low based on the design, location, use, and tornado history at the site.

#### **1.5 Fuel Oil No. 2 Characteristics**

The Hartwell Generating Facility is a Peak Energy Generation Facility, using natural gas, with supplementary fuel oil, for the firing of a combustion turbine facility used to generate electricity during peak demand periods. The Facility receives natural gas, typically used for generation, from a pipeline. No. 2 fuel oil is used as an alternative backup. On-site storage capacity for this fuel is summarized in the table below.

<b>Maximum Above Ground Storage Capacity:</b>	(b) (7)(F), (b) (3)
<b>Number 2 Fuel Oil (gallons):</b>	(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)

The Material Safety Data Sheets (MSDS) describing characteristics of No. 2 Fuel Oil is included in Appendix A of this Plan and is also maintained in the Facility Control Room..

### 1.5.1 Fuel Oil Risks

The fire danger from fuel oil is moderately high. Fuel oils float on water, and caution should be used in working with or near the fuels because of their flammability and vapors. Exposure to, or inhalation of, fuel oil vapors can be hazardous to health. The release of fuel oil could result in fire, explosion, or pose a threat to human health and the environment. The vapor pressure of fuel oil is low enough that the potential of flash back from traveling vapor clouds poses little risk. Explosion could occur if vapors were trapped in closed containers or areas with the introduction of an ignition source. Failure of a storage tank could result in the release of up to (b) (7)(F), (b) (3) of fuel oil. The failure of a feed line could result in the release of approximately (b) (7)(F), (b) (3) of the fuel. Failure of a fuel oil supply line during filling (b) (7)(F), (b) (3)

If such a release occurred in the tank farm, up to 3,150,000 gallons of the material would be contained by the containment area. (b) (7)(F), (b) (3)

Extreme caution should be exercised in order to assure that the area is safe and free of explosive vapors **prior** to commencement of containment and recovery activities. Sensitive environmental areas should be protected immediately by use of sorbents, diking, and floating booms to insure that Fuel Oils do not intrude into those areas. Specific response actions for the recovery of fuel oil are included in Appendix C.

### 1.6 Environmental Vulnerability Analysis

A spill from the Hartwell Facility could adversely impact wetlands, fish and wildlife, recreational areas, the Savannah River and Lake Russell. The location of the Hartwell Facility minimizes the potential as well as the likelihood of any effect on schools, businesses, residences, and other facilities.

The most likely impact of a spill would be to the creek down gradient of the facility, which ultimately flows to the Savannah River. Wetlands associated with the creek would be impacted, as well as wildlife in the flow path of the spill. The spill could potentially access the Savannah River and Lake Russell by running down the creek or across the surface of the ground. Spill entering the river or lake could impact recreational areas and the drinking water supplies of two municipalities and one state park. The potential impact on fish resources would, based upon EPA analysis, be considered low because fuel oil is a non-persistent product. The fuel oil spill maximum, worst case travel rate is predicted to be 0.3 foot/second. At this velocity, a spill could potentially reach the creek approximately 1/2 hour after release. The distance from the facility to the Savannah River is approximately 3/4 mile. Based upon the calculated velocity in the drainage channel of

0.317 ft./sec, the material would reach the Savannah River approximately 3.5 hours after a release. Site workers would immediately respond. Contract personnel's anticipated response time is within 2.5 hours of notification, which is well within the 6 hour response time required for a Group II Persistent Oil in a Tier 1 High Volume Area. This would minimize the amount of material that could reach the river. See Appendix A for Worst Case Discharge, Discharge Planning Volume, Response Resources, and Recovery Capacity Calculations.

A release entering the Savannah River would flow approximately one half mile prior to entering the Richard B. Russell Lake. Three municipalities have water withdrawal permits from the Savannah River issued by the U.S. Corps of Engineers. Drinking water is withdrawn for use by the Cities of Elberton and Hartwell, Georgia, and City of Abbeville, South Carolina. Low surface water velocity on Lake Russell would facilitate response time. Figures 7a and 7b in Appendix A identify sensitive areas within a 5 mile radius of the Facility. Endangered species located in Hart County, and Elbert County, Georgia, and Anderson County, South Carolina are listed in Appendix A. Spill response deployment resources, locations, recovery, and protection points are discussed in the spill response deployment plan located in Appendix D.

### **1.6.1 Potential for Contamination**

In the event that spilled material is retained inside a spill control dike or the spill control pond, the following information is of importance because it relates to the potential for groundwater contamination from the spilled material.

The groundwater contamination potential at this site is considered low. The permeability of the spill control dike and the dike floor are low based upon the installation of a containment liner. This liner is designed to retain spilled petroleum products for a period of at least 72 hours before any substantial losses occur to the groundwater. Unless the liner was breached by puncture or break down of the material from the discharge, or from an accumulated hydraulic head or a pressure wave, the dike will contain all the spilled materials.

In the event of a discharge from the facility to the down gradient area leading to the Stormwater Retention Pond or to the Savannah River, immediate response and corrective actions will be required to prevent substantial environmental contamination. An analysis of the distance of critical flow pathways has indicated that an environmentally sensitive area is located approximately 4000 feet downstream of the facility. The required response time to prevent contamination is approximately 3.5 hours for entry to the Savannah River. Entry into the small, down gradient creek bed could occur in approximately one-half hour.

### **1.6.2 Counties in Which a WCD Could Cause Substantial Environmental Harm**

The Hartwell pipeline is located solely in Hart County, Georgia. As noted above, a significant release could, however, cause adverse effects in adjacent counties, which include Anderson and Elbert Counties in Georgia.

## 1.7 Recovery Resources

OPC has contracted with two entities to provide personnel and equipment to respond, to the maximum extent practicable, to the extremely unlikely event of a worst case discharge or a substantial threat of a worst case discharge from the Hartwell pipeline. These entities have the necessary private personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge or to the threat of a worst case discharge originating from the Hartwell oil pipeline. OPC's certification that this it has obtained such services at the required level is included in Appendix A.

### 1.7.1 Hartwell Emergency Response Contractors

OPC has contracted with the entities listed below to provide assistance in the event of an oil spill or threat thereof associated with the Hartwell oil pipeline. Evidence of these contractual relationships and other information, including available equipment and supplies, are included in Appendix A.

Date of Last Update: November 2014

Contractor	Phone	Response time	Contract responsibility <sup>1</sup>
1. Phillips Recoveries	864-947-6861 or 864-934-2197	1 Hr.	Primary Response Contractor
2. Remtech Engineers	800-377-3648 or 770-427-7766	2.5 Hrs.	Alternate Response Contractor

OSROs must provide documentation of response decisions, activities, and equipment used upon completion of a spill response. The above listed OSROs are contracted to provide adequate personnel and equipment for spill response assistance at the Hartwell Facility.

### 1.7.2 Recovery Resource Contracts

Evidence of contracts/agreements with response contractors to ensure the availability of personnel and response equipment is included in Appendix A.

### 1.7.3 Recovery Equipment

Lists of equipment available from OPC's contractors who would be engaged in the event of any spill involving the Hartwell facility are included in Appendix A. Appendix A contains a list of contractor owned equipment, drill logs, and contracts. Spill response deployment resources, locations, recovery, and protection points are discussed in the Spill Response Deployment Plan located in Appendix D.

#### 1.7.3.1.1 Hartwell Energy Facility Spill Response Equipment and Kit Locations

Some basic spill containment equipment is available onsite at the Hartwell Facility. Spill minimization equipment such as spill kits is available at locations within the site most likely to experience minor spills. Spill kits and equipment are provided in the following locations:

- Adsorbent Pads in Maintenance Shop Area
- Kit(s) in Storage Building

- Kit(s) in Foam House
- Hay Storage Area Southwest of Storage Building
- Forklift in Storage Building
- Spare Pumps in Storage Building
- Mobile Tank at Storage Building

#### 1.7.4 Response Team Off-Duty Availability

The estimated travel to site time for Response Contractors and for off-duty OPC Spill Response Team members is shown on the tables below.

#### Emergency Response Contractors

Date of Last Update: December 2014

Contractor	Phone	Response time	Contract responsibility <sup>1</sup>
Phillips Recoveries	864-947-6861 or 864-934-2197	1 Hr.	Primary Response Contractor
Remtech Engineers	800-377-3648 or 770-427-7766	2.5 Hrs.	Alternate Response Contractor

<sup>1</sup> Evidence of contracts/agreements with response contractors to ensure the availability of personnel and response equipment. See Appendix A.

#### Facility Response Team

Date of Last Update: December 2014

Team member	Response time (minutes)	Phone or Cellphone number (day/evening)
<b>Qualified Individual:</b> Mike McCollum	30 min.	864-376-8273/ 404-683-2502
<b>Alternate Qualified Individual:</b> Kenn Pittman	20 min	706-988-6179
<b>Alternate Qualified Individual:</b> Brad Jordan	15 min	706-377-4337
Andy Wiltshire	20 min	706-779-7331
Debbie Mckee	30 min	864-940-1522
Greg Gillespie	30 min	864-760-5193
Rusty Donald	30 min	864-261-7227

## **1.8 Maps and Drawings**

Maps showing the potential location of any future worst case discharge and each potentially affected environmentally sensitive area within a radius of one mile of the Hartwell pipeline are presented in Appendix A. The piping diagram and plan-profile drawing of the Hartwell pipeline are also included.

## SECTION 2 – NOTIFICATION PROCEDURES

### Notification Process Overview

The information presented in this section is intended to provide information necessary for an immediate response action. In the event of a petroleum or hazardous material spill, the Hartwell Energy Facility employee(s) discovering the spill are to take immediate measures to stop the spill or reduce the immediate danger. As soon as possible, the employee(s) are to summon assistance and report the spill to the Qualified Individual on scene or on call at the time of the incident.

The employees on duty follow the procedures described in this Section to notify others of a spill. In the event that a spill occurs during a shift when the plant management is not present or any hours when the administrative office is closed or inactive, employees are instructed to report any spill to the designated plant management personnel. Plant management personnel will report the spill to the appropriate authorities (see Spill Classification and Required Actions below). The Spill Reporting Procedure as well as a process flowchart are presented in Appendix B.

### 2.1 Spill Recognition Contingencies

The OPC associate reporting the release is responsible for estimating the size and type of spill. The associate will contact plant management and/or the Qualified Individual, who will make all subsequent necessary notifications. In the event of a discharge or significant threat of a discharge from the Hartwell Oil Pipeline, the following immediate actions and notifications are required.

### 2.2 Immediate Actions

In the event of a petroleum or hazardous material spill, the Hartwell Energy Facility employee(s) discovering the spill is to take **immediate** measures to stop the spill or reduce the immediate danger. Immediate responses will include, as required, the following:

Required Action	
1. Stop the product flow	Act quickly to secure pumps, close valves, etc.
2. Warn personnel	Enforce safety and security measures
3. Shut off ignition sources	Motors, electrical circuits, open flames, etc.
4. Initiate containment	Around the tank and/or in the water with oil boom
6. Notify Facility Qualified Individual	706-856-8009
5. Notify National Response Center (NRC)	800-424-8802

In the event that a spill occurs during a shift when the plant management is not present or any hours when the administrative office is closed or inactive, employees are instructed to report any spill to the designated plant management personnel. The plant management personnel will report the spill to the appropriate authorities.

## 2.3 Notification

### 2.3.1 Information Required

The following information will be provided in the initial and each subsequent notification:

- (1) Name of pipeline;
- (2) Time of discharge;
- (3) Location of discharge;
- (4) Name of oil involved;
- (5) Reason for discharge (e.g., material failure, excavation damage, corrosion);
- (6) Estimated volume of oil discharged;
- (7) Weather conditions on scene; and
- (8) Actions taken or planned by persons on scene.

### 2.3.2 Individuals/Entities to Be Notified in the Event of a Discharge

While some variation in the sequence and scope of notifications made can be and will be dependent on the method, timing, and perceived volume and velocity of a release, the following contact lists represent the optimal engagement and notification.

### 2.3.3 Hartwell Facility Response Team

The Hartwell Facility Response Team will be notified as soon as a spill or threat of spill has been identified by either the operator recognizing the discharge, plant management, or the Qualified Individual in the event of a discharge. Notification will be made via telephone, or via email as a secondary option.

The Hartwell Facility Response Team consists of the following personnel:

Name	Position	Telephone
Mike McCollum	Qualified Individual (O&M Supervisor)	(O) 706-856-8009 (H) (b) (6) (C) [REDACTED]
Ken Pittman	Alternate Qualified Individual	(O) 706-376-7010 (C) (b) (6)
Brad Jordan	Alternate Qualified Individual	(O) 706-376-7010 (H) (b) (6)
Andy Wiltshire	Member	(O) 706-376-7010 (O) 706-779-7331
Debbie McKee	Member	(O) 706-376-7010 (H) (b) (6)
Greg Gillespie	Member	(O) 706-376-7010 (H) (b) (6)
Rusty Donald	Member	(O) 706-376-7010 (H) (b) (6)
Doug Fulle	OPC Vice President of Environmental Affairs	(O) 770-270-7166 (H) (b) (6) (C) [REDACTED]

Phillips Recoveries, Inc.	Spill Response Contractor	800-947-6805 864 947-6861 (C) (b) (6)
Remtech Engineers	Backup Spill Response Contractor	800-377-3648 or x203 770-427-7766 x203 (C) (b) (6)

### 2.3.4 Notification of Local, State, and Federal Contacts in the Event of a Release

The following prioritized checklist, used to record notifications as they are completed, includes the necessary local, state, and federal contacts to be made in the event of a release. All notifications are made by operating personnel. Typically, the Qualified Individual makes the external contacts. The form also appears in Appendix B.

Reporter's Name and Date: \_\_\_\_\_

Facility Name: Hartwell Energy Facility

Owner Name: Oglethorpe Power Corporation

Facility Address: 415 Smith McGee Hwy 181, Hartwell, Georgia 30643

Facility Identification Number: \_\_\_\_\_

Organization	Phone No.	Call Order	Called (Y/N)
Local Response Team (Fire Dept./Cooperatives):	706-376-8515 (911)	1 <sup>st</sup> Call	
State Police (Sheriff's Office):	706-376-3114 (911)		
Phillips Recoveries, Inc. (Primary Response Contractor), Michael Phillips	800-947-6805 (H) (b) (6) (C) [REDACTED]	2 <sup>nd</sup> Call	
Remtech Engineers (Secondary Response Contractor), Mark Ryckman	800-377-3648 x 203 or 770-427-7766 x 203	2 <sup>nd</sup> Call	
National Response Center	800-424-8802 202-267-2675	3 <sup>rd</sup> Call	
Federal On-Scene Coordinator (OSC) EPA Region IV (24-hour Spill Line)	404-562-8700	4 <sup>th</sup> Call	
State Emergency Response Commission (SERC): 24-hour Dispatch (in state)	800-241-4113 404-656-4863	5 <sup>th</sup> Call	
Local Emergency Planning Committee (LEPC):	706-376-8515	6 <sup>th</sup> Call	
City of Hartwell, Georgia , Water Supply System	706-856-3211	Call if spill reaches the Savannah River	
City of Elberton Georgia	706-283-5321		
City of Abbeville, South Carolina	Normal 864-366-5058 Emergency 864-366-5677		

NOAA Weather Report:	770-632-1837	If Needed	
Local Television/Radio Station for Evacuation Notification:	706-376-2233	If Needed	
Hospitals: Hart County	706-376-3921 (911)	If Needed	
Plantation Pipe Line, Liquid Fuel	(800) 510-5678	If Affected	
Colonial Pipe Line, Liquid Fuel	(800) 926-2728	If Affected	
William Transco Natural Gas Pipe Line	(800) 440-8475	If Affected	

**Other contacts that may be necessary or appropriate depending on the circumstances of the spill include:**

ORGANIZATION	CONTACT	PHONE NUMBER
Fire / Hazmat	City of Hartwell Fire Dept.	706-856-3228 or 706-856-3209
Medical/Ambulance		706-365-3421 or 911
CHEMTREC		1-800-424-9300
Georgia Environmental Protection Div. Emergency Response Team**	24-hour Dispatch (in state)	800-241-4113 404-656-4300
US DOT PHMSA OPS		202-366-4433
US Army Corps of Engineers	Hartwell Dam & Lake Discharge	706-856-0300 or 888-893-0678
US Army Corps of Engineers	Russell Dam & Lake Discharge	706-213-3400 or 800-944-7207

### 2.3.5 Spill Response Notification Form

Communication of the information shown above will be documented by completing the Notification Log shown in Appendix B.

The Spill Response Notification Form included in Appendix B should be prepared as completely as possible before notifying the National Response Center, the U.S. EPA, US DOT, or the Georgia Environmental Protection Division. Information contained in this form will be used to determine the nature of the spill and any special requirements that may exist. The accuracy of this report is essential in assessing the situation and in preparing required regulatory reports.

### 2.4 Method of Notification

Notification to the Hartwell Facility Response Team will be through the established OPC communication channels and emergency telephone contact lists. Where doubt exists as to the immediate need of services, the contact should be made early on a “standby – we will keep you informed” basis, which will enhance mobilization should the situation deteriorate. Early contact is particularly important where travel distance is a factor and/or the situation will require specialized equipment and resources.

The primary mode of communication for notification to regulatory agencies, OPC personnel or contractors is via telephone. The alternate method is via email. The notification of agencies and entities outside OPC will typically be accomplished by the Qualified Individual.

#### **2.4.1. Emergency Notification – Internal & Oil Spill Response Contractor (OSRO)**

Upon identification of any discharge subject to this plan, Hartwell personnel will notify the following, as appropriate. The Hartwell Energy Facility emergency phone line is the internal notification point for initial spill reporting. It is the intent of the facility personnel to accomplish the initial notifications of spills to the appropriate authorities as soon as possible. The personnel staffing the line will immediately notify, in the following order:

- the Qualified Individual or alternate (who will proceed with the other notifications in the table below)
- the O&M Supervisor
- the CT Fleet Manager
- the Oglethorpe Power Vice President of Environmental Affairs

#### **2.4.2 Spill Classification and Required Actions**

In the event of a spill of any petroleum or chemical product, the following policy has been established with the Fire Department, the State of Georgia, and the US Environmental Protection Agency and/or the National Response Center.

*Spills which occur at the facility tank storage area, and for which no assistance is required, will not be reported unless the spill leaves the site property or has the potential to reach waters of the state.*

*Any spill within any other area of the facility, regardless of size, will be reported to the O&M Supervisor, even if the reporting is for information purposes only.*

The table below summarizes required action/ notification by spill category, including fuel oil spills.

<b>Spill Classification</b>	<b>Perform the Following Activities</b>
A spill of Petroleum/Oil that remains inside a building or on an exterior impervious surface when it is not raining.	No outside notifications are required. Cleanup must begin immediately.
A spill resulting in a visible oil sheen, film or discoloration on waters of the United States	Report the spill immediately to the National Response Center at 1-800-424-8802.
A spill of petroleum/oil (> 42 gallons but <1,000 gallons) that travels off site.	Report the spill <u>immediately</u> to EPD by telephone and by using Worksheet 3

	information. Contact EPD at 1-800-241-4113 and the National Response Center at 1 800-424-8802. Submit written report to EPD.
A spill of petroleum/oil >1,000 gallons or two spills > 42 gallons within a 12 month period.	Report the spill <u>immediately</u> to EPD by telephone and by using Worksheet 3 information. Contact EPD at 1-800-241-4113 and the National Response Center at 1 800-424-8802. Amend the SPCC Plan and submit Report to EPA within 60 days in accordance with 40 CFR 112.4(a).
<p><b>A release of No. 2 Fuel Oil by the 12-inch steel supply pipeline that:</b></p> <p><b>(1) Caused a death or a personal injury requiring hospitalization;</b></p> <p><b>(2) Resulted in either a fire or explosion not intentionally set by the operator;</b></p> <p><b>(3) Caused estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding \$50,000;</b></p> <p><b>(4) Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or</b></p> <p><b>(5) In the judgment of the operator (Hartwell Energy Facility) was significant even though it did not meet the criteria of any other paragraph of this section.</b></p>	<p><b>Report the spill immediately to the National Response Center at 1-800-424-8802.</b></p> <p><b>As soon as practicable, but not later than 30 days after discovery of the accident, file an accident report on DOT Form 7000-1.</b></p>

## 2.5 Narrative Overview of Hartwell Spill Notification Procedures

As noted earlier in this Plan, the Hartwell Energy Facility emergency phone line is the primary internal notification point for initial spill reporting. It is the intent of the facility personnel to

accomplish the initial notifications of spills to the appropriate authorities identified in the emergency contact list in this Plan as soon as possible.

### **Small and Medium Releases**

Small and medium releases are likely to be contained within the onsite secondary containment. Should either occur, Hartwell Energy may, depending upon the nature of the release, activate the off-site emergency spill contractors for needed assistance. Notifications to the regulatory entities listed elsewhere in this Plan will provide access to additional expertise, supervisory assistance and advice. Upon discovery of a small or medium discharge, the Qualified Individual will be notified who will immediately investigate the event. Depending upon the nature of the release, the Qualified Individual will notify facility spill team members to begin mitigation and cleanup activities immediately. Should the event present itself to be too large for the local spill team, additional assistance will be secured via off site contractors.

### **Worst Case Discharge**

A worst case discharge would likely occur due, in part, to failure of the facility secondary containment system described above. If that occurs, the discharged material will begin flowing over the ground via a small stream toward the Savannah River. Contracted emergency response personnel will be summoned immediately.

## **2.5 Documentation**

The following reporting criteria apply to documenting any spill at the Hartwell facility. All spills will be accompanied by a written report, made within 48 hours of the cessation of spill clean-up activities. The report will be entered into the Spill Event Record at the facility. The O&M Supervisor will review the Spill Event Record and make appropriate entries and records as necessary.

For spills meeting the outside reporting parameters defined in Section 2.4.2 of this Plan, a written follow-up report must be submitted within 15 days of the initial notification to outside entities.

## **2.6 Safety Procedures at Hartwell**

The OPC Safety Plan governs every activity at the OPC generating facilities. The Plan provides a comprehensive description of the Operator's safety expectations, encompassing program goals, regulatory requirements, equipment requirements, employee involvement, accepted industry standards, and Owner's expectations. This procedure defines minimum safe work rules and safe working practices. The primary purpose of this procedure is to ensure that employees are provided a safe working environment. Another objective of this procedure is to provide assurance that the Operator's employees receive on a continuing basis the requisite training that will enable them to maintain adequate skills and knowledge to continue safe and effective operation of the Facility, including those associated with oil pipeline safety. Other safety objectives and principles are:

- All injuries and occupational illnesses can be prevented.
- Safety is the responsibility of every employee and every employee is expected to follow safe working practices.
- Training is an essential element for a safe working environment.
- Safety performance reviews must be a continuing process.

- All injuries, unsafe practices, and all incidents with injury potential will be investigated.
- Each employee is responsible for administering the safety procedures described herein and will be evaluated accordingly.
- The prevention of accidents and illnesses is good business.

### **2.6.1 Spill Site Safety Plans**

In the event of a spill, in addition to the overall plant safety plan, OPC's contractor will develop and implement a site-specific/event specific safety plan. A sample OSRO safety plan is included in Appendix B. A qualified safety officer, designated by the contractor, will have the following responsibilities during the incident response and cleanup:

- Ensure safe practices are followed
- Determine necessary level of personal protective gear
- Monitor environmental conditions
- Maintain site safety record
- Maintain the integrity of the work zones
- Ensure compliance with proper decontamination procedures
- Ensure first aid and medical treatment are provided for injured workers

## **SECTION 3 - SPILL DETECTION AND ON-SCENE SPILL MITIGATION PROCEDURES**

Because the Hartwell Pipeline is so seldom used, any pipeline-related spill is unlikely. However, to reduce the risk of spills or related events, and to detect spills if and when they do occur, as well as to mitigate the effect of a spill should one occur, OPC employs several methods, described below.

### **3.1 Discharge Detection Systems**

#### **Visual Inspection**

The job description(s) of the O&M Supervisor and all /Operations personnel include responsibility to visually inspect all aspects of the facility. Operations personnel examine the tanks and the equipment in the tank farm daily to insure that there are no leaks in the tanks or piping system. Any leaks noted are recorded.

At the time of delivery, the individual assigned responsibility for the receipt walks the lines and stays at the tank farm as required.

All visible tanks, lines, flanges, pumps, and other equipment are examined on a routine basis for indications of leaks, drips, sweating, etc. Repair of any such item is handled on a priority basis. An inspection is made by the O&M Supervisor or other designated person on a regular basis. Any leaks, drips, repairs, or other discrepancies are noted.

Storage tanks and transfer pumps are inspected on a regular basis. Inspections include gauge hatch covers, manhole covers, gaskets, and flanges.

The exposed surfaces of the tanks, pipelines and all equipment are inspected visually for the presence of discoloration or blistering which could indicate that the exterior paint is failing, or that the tank is leaking at a seam or through a pinhole. Appropriate maintenance and repairs are made as necessary. Buried pipelines utilizing sacrificial anodes are inspected periodically; surfaces above those pipelines are visually observed for bulging, discoloration, product spills or any other suspicious characteristics.

A written record of all inspections which generate repair orders is kept. Other records of visual inspections, which are made on a periodic basis, are generated when exceptions are noted.

Hartwell Energy Facility occasionally employs contractors to perform maintenance at the facility. This maintenance is performed as required under the supervision and scrutiny of facility operations personnel.

**(b) (3), (b) (7) (F)**

The loading rack is designed for spill control. This loading area has the capability of collecting all fuel in the tank truck. The spill containment area drains into the tank farm containment area.

### **3.2 Other Detective/Preventive Procedures**

#### **Pipeline Testing**

All pipelines were tested upon installation at the Hartwell Energy Facility. Easements for pipeline companies on-site piping do not provide for, obligate, or allow Hartwell Energy Facility to test their lines. Maintenance and testing of on-site pipelines is the responsibility of the owners of those lines. Piping used to fuel equipment is tested as necessary to maintain safe and efficient operations in accordance with prescribed industry standards. Above ground and buried Hartwell Energy owned piping utilizing sacrificial anode protection are tested and visually checked regularly.

#### **Tank Testing**

The facility conducts periodic tank testing to insure tank integrity. These tests are in accordance with American Petroleum Institute (API 653) and other pertinent, applicable standards.

Since the No. 2 fuel oil tanks are field-constructed ASTs, the ASTs will be evaluated for the risk of discharge or failure due to brittle fracture or other catastrophe if repairs, alterations, reconstruction, or if the ASTs have a change in service. Outside tank service companies would be contracted to conduct brittle fracture evaluations on the No. 2 fuel oil ASTs.

#### **Cathodic Protection Testing**

All petroleum lines are protected by sacrificial anode protection systems. In order to protect the tanks and the pipelines, the system is inspected periodically. Appropriate action is taken to assure the proper operation of the petroleum lines including the off-site fuel oil transfer line in the event an issue is identified.

#### **Soundness Testing and Inspection**

Every ten years, or more frequently as indicated or required, a tank is completely emptied and visually inspected. At that time, any sludge which may have accumulated in the bottom of the tanks is removed, and the tanks are tested to determine their integrity per API 653.

#### **Product Usage and Justification Records**

Several types of records are kept in the facility. These records are examined on a daily basis. Bills of lading for tank truck and pipeline deliveries are maintained. Fuel oil and natural gas usage is maintained in the daily log. A daily record is kept of the amount of product in storage in the tanks.

A bulk stock loss record is maintained in the facility control log. The bulk stock loss record is used to compare the actual losses of product to the amount, which is reasonably anticipated. Any undue variances in the records are investigated.

#### **Lock and Key Assignments**

The facility maintains a log of current lock and key assignments.

### **3.3 Description of Drainage and Barrier Systems**

The Hartwell Facility has a containment system, which is designed to hold at least 110% of the contents of the largest single tank in the tank farm and the contents of a delivery truck in the off-loading area. The tank farm containment is actually designed to hold 3,150,000 gallons or 150% of the largest tank in the containment area. The spill containment system at the loading rack drains to the tank farm containment area.

#### **3.3.1 Specific Preventive/Mitigating Requirements & Circumstances**

##### **Positive Controls to Prevent Drainage from Diked Storage Areas**

The positive controls which are used to prevent drainage from diked storage areas include use of procedural controls and equipment to prevent the discharge of oils from all areas of this facility.

##### **Disapproval of Flapper Type and Other Drain Valves**

Flapper type drain valves are not used in this facility. No valves are used for drainage of the facility. Contained materials are moved by use of pumps.

##### **Drainage from Un-Diked Areas**

The truck loading rack is curbed on all sides and has a perimeter drain at the south end which drains to the tank farm containment area. The containment area is emptied using pumps.

##### **Diversions Systems**

This facility has surface ditches that act as diversion systems. These drainage ditches direct surface run-off to the storm water retention pond located below the tank farm area.

##### **Facilities Subjected to Flooding**

This facility is not within the 100-year flood plain of any stream or river.

##### **Driver Inspection of Vehicle Bottom Drains**

The tank trucks are bottom off-loaded at the facility. The tank trucks are equipped with a loading bar or brake locks which lock the brakes on the truck when loading/unloading is in progress.

The drivers and operators are instructed to carefully inspect vehicles to make sure that bottom valves are not leaking. Bottom valves will be inspected by the O&M Supervisor or operations personnel. In the event that a bottom valve is discovered leaking, the truck will be barred from the facility until the necessary repairs have been made.

##### **Integrity Testing Standards for Aboveground Storage Tanks**

Every ten years, or more frequently as required, each above ground storage tank in the terminal is drained, cleaned and inspected. The inspection procedures may incorporate a combination of sonic, vacuum, radiographic and other systems for testing the integrity of the welds and seams and of the thickness of the tank walls. Appropriate tests prescribed by industry standard, and API standards, will be employed. After the inspections, the tanks are returned to service.

The criteria for removing a tank from service or making major modifications or repairs to a tank have been established by Hartwell Energy Facility. The facility will use API 653 Tank Inspection Standards, and keeps a copy of these standards on file at its corporate office. The facility does not keep a copy of the API 653 standards on site. The facility will maintain a copy of Form S-285, or similar record, for each tank. This form indicates all inspections and operations performed on the tank(s).

### 3.4 Hartwell Inspection/Detection Program

Hartwell conducts a rigorous self-inspection program designed to preclude spill events. The following tables list some of the inspections which are made periodically at the Facility. Complete files on the results of these inspections are maintained by the Facility and are retained for a period of five years. The following list addresses only those items which have potential relevance to operation and spill control procedures at the Facility.

#### 3.4.1 Facility Inspection

The results of those inspections which are performed by a Contractor are communicated to the Hartwell Energy Facility O&M Supervisor, who authorizes the necessary repairs by signing a work order.

#### HARTWELL FACILITY INSPECTIONS

<u>ITEM</u>	DESCRIPTION OF INSPECTION OR TEST – REPAIR AS NECESSARY
<b>Loading Rack</b>	
Fire Extinguishers at all locations in the Facility	Check for full charge/ recharge where needed
All Temperature Probes	Re-calibrate
All Pressure Gauges	Inspect for operation/ leaks
All Strainers	Inspect
Grounding Devices at lanes on loading rack	Inspect and Check
Overfill Device	Check Operation and status lights. Check to insure bypass switch is locked.
Intercom/Radios	Check
Seals and gaskets	Visual inspect all piping, valves, fitting and component connections, seals, gaskets and valve packing for leakage or looseness
Meter Presets	Check function, insure seals in place

<b>Truck/Pipeline Unloading System</b>	
Pump motor	Check for leaks
Pressure Gauges	Check for operation, leaks
Pump off hoses, above ground piping and buried piping	Check for leaks and sacrificial anodic protection systems
<b>Storage Tank Facilities</b>	
Tanks	Inspect roof devices, openings, for security and labeled. Observe domes and roofs for damage.
Water Draw Off Valves	Insure valves closed and locked, check for leaks
Tank Level Gauges	Check for free movement, level transmitters
Tank Hi-Level Alarm	Manually Check audible alarm activation
Tank Level Transmitter	Compare readings and re-calibrate
Tank Motor Operated Valves	Completely check operation
Tank Hand Operated Valves	Check for leaks, operation
Tank Safety Control Valve	Check Operation
Product Pump Motor	Inspect for leaks, check operation
Seals/Gaskets/ Victaulic Couplings	Check for leaks
All Secondary Containment Areas	Check
Tank Walls & Drains	Visual Inspection
Manifold Area	Thorough Check of all valves, visual inspection, lubricate as required
<b>Security Systems</b>	

### 3.4.2 Tank Inspection

The facility conducts the following oil tank inspections:

**Facility Tank Inspections Checklist**

INSPECTION FOCUS	CHECKS
Tank Leaks	Drip marks, discoloration of tank, puddles containing spilled or leaked material, corrosion, cracks and localized dead vegetation.
Tank Foundation	Cracks, discoloration, puddles containing spilled or leaked material, settling, gaps between tank and foundation and damage caused by vegetation roots.
Tank Piping	Droplets of stored material, discoloration, corrosion, bowing of pipe between supports, evidence of stored material seepage from valves or seals and localized dead vegetation.

Inspection results are documented through completion of the form shown below.

**Facility Tank Inspection Report Form**

Inspector	Tank Number	Date	Comments
	A1		
	A2		
	A3		

### 3.5 Response Equipment Inspection

#### 3.5.1 Location of Spill Response Materials

Hartwell Energy Facility maintains only spill absorbent materials for minor spill response activities. On site spill response equipment is stored in the workshop area of the administration building, the foam house, the facility storage building and in the spill response contractor's storage shed in the southwest corner of the facility. These areas are inspected routinely in the day to day operations of the facility. If spill absorbent material is used, it is promptly replaced. Spill absorbent materials are inspected as part of the SPCC Plan on a routine basis. The spill response equipment onsite is limited and suitable for addressing small releases. Also, additional small amounts of absorbent materials may be kept in the generator and pumping areas to control small drips and leakage consistent with normal operations. In addition to the basic spill absorbent materials stored on site, the Facility relies on spill response materials and equipment provided by the Oil Spill Response Contractors (OSRO). Emergency response entities maintain an inventory of equipment that is available for use in response to an emergency spill or release at the Hartwell Energy Facility. The equipment is maintained by those contractors and inventory records are maintained by them. See Appendix A for a listing of off-site contractor equipment.

### 3.6 Secondary Containment Inspection

The secondary containment areas at Hartwell Energy are designed to retain the largest spill anticipated at the facility. The contents of each of the 2,100,000 gallon No. 2 fuel oil containing tanks can be captured plus an additional volume for precipitation. Inspections for the secondary containment areas are accomplished using the following guide:

**Facility Secondary Containment Checklist**

INSPECTION FOCUS	CHECKS
Dike or Berm System	Level of precipitation in dike/available capacity, operational status of drainage valves, dike or berm permeability, debris, erosion, permeability of any earthen floor diked area and location/status of pipes, inlets, drainage beneath tanks, etc.
Secondary Containment	Cracks, discoloration, presence of spilled or leaked material, corrosion and valve conditions.
Retention and Drainage Pond	Erosion, available capacity, presence of spilled or leaked material, debris and stressed vegetation.

### 3.7 12” Buried Pipeline Inspection

The 12” buried pipeline inspections are conducted consistent with the Pipeline Integrity Management Plan. Inspections are included in the daily Walkdown Checklist inspections, which include tanks and associated piping observed and inspected for problems, spills and leaks. The entire pipeline area is visually inspected according to the requirements of the Facility’s Hazardous Liquid Pipeline Operations and Maintenance Manual.

### 3.8 Federal, State and local pollution response agency contacts

The following table lists the names and telephone numbers of Federal, state and local agencies which the operator expects to assume or support pollution response responsibilities in the event of a spill at Hartwell:

<b>ORGANIZATION</b>	<b>CONTACT</b>	<b>PHONE NUMBER</b>
Fire	Hart County Fire Department	706-376-8515 or 911
Fire / Hazmat	City of Hartwell Fire Dept.	706-856-3228 or 706-856-3209
Federal On-Scene Coordinator (OSC):	EPA Region IV (24-hour Spill Line)	404-562-8700
Georgia Environmental Protection Div. Emergency Response Team**	24-hour Dispatch (in state)	800-241-4113 404-656-4300
National Response Center		800-424-8802 202-267-2675
U.S. EPA, Region IV		404-562-8700
US DOT PHMSA OPS		202-366-4433
U.S. Coast Guard – Savannah		912-652-4181
City of Elberton Georgia	Water Withdrawal	706-283-5321
City of Hartwell, Georgia	Water Withdrawal	706-856-3211
City of Abbeville, South Carolina	Water Withdrawal	Normal 864-366-5058 Emergency 864-366-5677
US Army Corps of Engineers	Hartwell Dam & Lake Discharge	706-856-0300 or 888-893-0678
US Army Corps of Engineers	Russell Dam & Lake Discharge	706-213-3400 or 800-944-7207

### **3.9 Recovery Equipment**

Appendix A lists the equipment available for use in response activities on land and navigable waters, as well as the personnel or contractor authorized to use that equipment in response to a spill at Hartwell.

### **3.10 On-scene Mitigation Measures**

#### **3.10.1 Immediate Actions**

In the event of a petroleum or hazardous material spill, the Hartwell Energy Facility employee(s) discovering the spill is to take immediate measures identified in Section 2.2, above, to stop the spill or reduce the immediate danger.

## **SECTION 4 - RESPONSE ACTIVITIES**

The response actions to a spill will be dependent on the magnitude, flow, and threat posed by the particular spill. The necessary equipment, products, and personnel for spill response may also vary depending on these variables. This section describes general guidance for handling spills as well as specific plans for dealing with small, medium and worst-case discharge scenarios.

### **4.1 Safety**

Initially, the qualified individual will serve as an ad hoc safety officer. Hartwell Energy Facility personnel are not equipped or trained to conduct spill response and will rely on contracted spill response contractors for all cleanup operations. The contracted spill response contractors will prepare a site safety plan for use during a specific spill event. A sample site safety plan is located in Appendix B. Upon engagement of the OSRO, the OSRO's designated Safety Officer will fulfill the following responsibilities:

1. Ensure a site safety and health plan is prepared and implemented. (Appendix B)
2. Assess safety hazards and unsafe situations.
3. Ensure response personnel are briefed daily regarding safe work practices.
4. Ensure response personnel are properly trained.
5. Establish decontamination procedures.
6. Liaison with local public health and OSHA officials.
7. Assess conditions of incident to determine appropriate levels of personal protective equipment for response personnel.

### **4.2 Emergency Response Action Plan**

The information presented in this section is intended to provide information necessary for an immediate response action. Detailed information related to Oil and Hazardous Material Spill Response is contained in the Hartwell Emergency Response Action Plan (ERAP) contained in Appendix D of this Plan.

### **4.3 Emergency Response Coordination**

Implementation of this Facility Response Plan will be initiated and led by the Qualified Individual, or a designated, qualified alternate, upon notification of a spill. The Qualified Individual, or designated alternate, will then serve as the "Local On Scene Commander" (OSC). The OSC will determine what assistance is required and will contact the necessary parties and organizations to conduct required containment, clean-up, and removal activities in the event of a spill. The Qualified Individual will continue as the On-Scene Commander unless and until relieved by a Corporate On-Scene Commander, a Federal On-Scene Commander, a State OSC, or another qualified, alternate OSC.

#### **4.3.1 Qualified Individual's Duties**

The Qualified Individual identified in this Plan has the following duties:

- Activate internal alarms and hazard communication systems to notify all facility personnel;
- Notify all response personnel, as needed;

- Identify the character, exact source, amount, and extent of the release, as well as the other information needed for notification (See Section 2.3 of this Plan for listing);
- Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;
- Assess the interaction of the discharged substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;
- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);
- Assess and implement prompt removal actions to contain and remove the substance released;
- Coordinate rescue and response actions as previously arranged with all response personnel;
- Use authority to immediately access company funding to initiate cleanup activities; and
- Direct cleanup activities until properly relieved of this responsibility.

#### **4.3.2 Facility Response Implementation**

The Hartwell Energy Facility ensures the safety of the facility and prevents or mitigates discharges through the implementation of the following actions.

The Facility Response Plan will be implemented by the Qualified Individual or Local On-Scene Commander upon notification of a spill. The Qualified individual/Local On-Scene Commander will determine what assistance is required and will contact the necessary parties to conduct required removal activities in the event of a spill incident. The On-Scene Commander will continue in this role unless relieved by the Corporate On-Scene Commander, the Federal On-Scene Commander, the State of Georgia On-Scene Commander, or a qualified alternate from the facility.

In general, the Local On-Scene Commander shall take the following actions:

- Investigate any and all reports of leaks or spills to determine what actions need to be taken and which actions can be taken immediately to mitigate the leaks.
- In the event of a major spill, determine whether or not the spill can be stopped or halted, or contained by simple immediate actions which can be performed with safety.
- Close the facility, if necessary, for the duration of the event. If required, or if a fire or explosion potential is high, contact the local Sheriff's Department and the State Highway Patrol to evacuate the area and to block off potentially affected highways.
- Notify the appropriate emergency response agencies and activate the spill response plan.
- Contact for immediate assistance on spill response and supplies.
- Contact spill response contractors for mobilization of equipment.

Spill response deployment resources, locations, recovery, and protection points are discussed in the spill response deployment plan located in Appendix D. Hartwell Energy Facility personnel are not equipped or trained to conduct spill response and will rely on contracted spill response contractors for all cleanup operations.

### 4.3.3 Response Protocol

In the event of a spill, the standing instructions are as follows:

- a. ALL EMPLOYEES:
  - Take whatever immediate measures you can to safely investigate and stop the spill.
  - If you cannot stop the spill, IMMEDIATELY summon assistance from the Qualified Individual.
  - After summoning assistance, and unless reassigned to other duties by the Qualified Individual, return to the spill site and begin cleanup or mitigation measures.
- b. QUALIFIED INDIVIDUAL:
  - When notified of a spill, immediately stop what you are doing and investigate the spill.
  - Determine what the situation is in the facility and determine what assistance is required.
  - Notify the appropriate Federal, State and City environmental and fire authorities as well as the Facility Manager of the situation. Use the notification list which is shown in Section 1.3.3. Return to the site and begin mitigation or cleanup operations.
  - When notified of a spill, the Qualified Individual will determine the severity of the spill. If the spill is a major event, the facility will be closed or operate under restricted procedures during the duration of the spill event.
- c. DRIVERS
  - All drivers permitted to off-load product at this facility are instructed to report spills as soon as possible to a Hartwell Energy Facility employee.

## 4.4 OPC Response Framework

As represented in the chart included in Appendix D, the OPC Incident Response Organization is based on multiple functional tiers, to ensure full support and response capability in the event of any adverse incident, including a fuel oil release at the Hartwell Energy Facility. This incident management framework expands and contracts to fit all risks and all hazard responses as well as incident urgency, scope and volume.

Depending on the size and magnitude of the spill, the Facility OSC will activate the Business Continuity Program (BCP) and Disaster Recovery Program (DRP) Framework for Incidents at OPC-Managed Generation Plants. The BCP and DRP detail the incident command system (ICS) that will be used by OPC for spills and response of large magnitude that deem it necessary. The BCP and DRP will activate the Plant Crisis Management Team (CMT), which includes the President, CEO, CFO, Executive Vice President (EVP) of Member and External Relations, Senior VP of Plant Operations, Senior VP General Counsel, Senior VP Construction and Technical Services, VP Treasurer, VP Environmental Affairs and VP of Risk Management. The Senior VP of Plant Operations will be the Facilitator of the Plant CMT. The Plant CMT will be supported by the Plant Damage Evaluation Team (DET) and the Crisis Communications Team (CCT). See the chart in Appendix D for more detail on the BCP and DRP.

### **Crisis Management Team**

The upper tier Plant Crisis Management Team is composed of Executives across the company, including Finance, Operations, Legal, Risk Management, and Operations as well as the Chief Executive, with the authority to expedite actions needed to support response. This works effectively because OPC is a relatively small organization with a straightforward hierarchy. The role of this group includes the following activities:

- Activates Crisis Communications Team
- Approves messages developed by Crisis Communication Team
- Develops recommendation to the Board on whether the plant should be restored or decommissioned
- Monitors progress of plant recovery efforts
- Ensures close coordination within the organization

### **Plant Crisis Management Support Teams**

There are two support teams, one for assessment of damage and one to facilitate effective and consistent communications. Their responsibilities include the following:

#### **Plant Damage Evaluation Team (DET):**

- Performs initial damage assessment to determine the nature of the impact, the extent of the damage and the estimated time to restore operations at the existing facility
- Provides disaster declaration recommendation to CMT
- Performs detailed damage assessment
- Supports salvage operations

#### **Crisis Communications Team (CCT):**

- Develops messages at time of disaster (ATOD) and submits such messages to the CMT for approval
- Directs media inquiries to appropriate team representative(s)

### **Plant-Specific Recovery Teams**

At the plant level, the OPC generic incident response plan identifies 2 tiers of response, the Team Leader and the Plant Recovery Team. These roles, which essentially incorporate the tactical recovery functions, echo the more specific responsibilities of the Qualified Individual and the Response Team described in this focused Hartwell Energy Facility Response Plan.

#### **Plant Recovery Team Leader:**

- Maintains and exercises plant recovery plan
- Sets up Command Center and leads plant recovery efforts ATOD
- Leads plant damage assessment efforts
- Reports progress and issues to designated CMT member(s)
- Ensures readiness of his/her plant recovery team

#### **Plant Recovery Team:**

- Executes plant recovery plan with direction from Plant Recovery Team Leader
- Participates in exercises of plan recovery plan

The teams are organized and respond in a manner consistent with the organizational and management principles of the Incident Command System (ICS):

- Common Terminology
- Manageable Span-of-Control
- Management by Objectives
- Consolidated Incident Action Plan
- Comprehensive Resource Management
- Established Incident Facilities
- Integrated Communications

#### 4.5 Communication

Methods of communication and necessary actions in the event of a release or threat of release relating to the Hartwell Pipeline are described fully in Sections 2 and 3 of this Plan.

#### 4.6 Spill Response Protocol

Consistent with the Notices and Actions described in Sections 2 and 3, as well as above in this Section 4 of this Plan, the specific spill response actions which are to be taken include the following:

- Activate the notification process by calling the Qualified Individual or alternate who is the Local On-Scene Spill Response Commander.
- The Local On-Scene Spill Response Commander will contact the appropriate personnel and will determine if travel to the spill area is necessary to direct the operations. The Local On-Scene Commander will also notify the various environmental agencies and the emergency response teams at Federal, State, and local levels if appropriate.
- The Local On-Scene Spill Response Commander will begin initial stabilization, containment, removal, and necessary emergency response actions for the facility, adjacent areas and surrounding areas as required.

#### 4.7 Worst Case Discharge Scenario

(b) (7)(F), (b) (3)

The relative effects of the spill will be dependent upon the rate of release. The closing of surrounding facilities in the vicinity of the Savannah River is suggested for areas immediately impacted by the spill. Any booms deployed should be erected in advance of the spill front. Spill control booms will be erected on the Savannah River as well as on the stormwater retention pond. All available resources will be used in addressing and remediating such a spill including contract response entities.

Such a spill should not reach the Savannah River. (b) (7)(F), (b) (3)

Based on the combined

containment volume of (b) (7)(F), (b) (3) , it would be highly unlikely that any fuel oil could be released to the environment. (b) (7)(F), (b) (3)

Shoreline contamination is expected if the materials were to reach the Savannah River. Provisions for staging areas for contaminated soil, vegetation and water shall be designated by the Qualified Individual. Hartwell Energy Facility will evaluate all available resources with the Federal or State On-Scene Commander(s) in a unified command and employ all that are deemed necessary. The National Oil Spill Response team will be notified and will be asked to provide supplemental resources as they become necessary and available.

The cleanup of shorelines may be enhanced by use of special detergent compounds and/or bio-enhancement compounds. The use of special detergent compounds and/or bio-enhancement compounds will be in accordance with the Dispersants Use Plan and In-Situ Burning Plan approved by US EPA Region IV Area Contingency Plan. Contaminated soils will be removed from the banks of the rivers and will be appropriately processed to remove contamination. The extent of fuel oil contamination will be determined by visual inspection and sampling and analysis, as necessary. Containment efforts will also be directed toward earth moving requirements in order to contain as much of the spill in the upper reaches of the Savannah River as possible before it can reach Lake Russell. Contract responders can be on-scene within one hour of notification. This should allow action to be taken prior to entry of the spilled material into the Savannah River.

#### **4.8 Coordination between Hartwell Qualified individual and OSC**

The Oil and Hazardous Material Spill Response Plan will be implemented by the Qualified Person, or a designated, qualified alternate, upon notification of a spill. The Qualified Individual, or designated alternate, will then serve as the Local OSC. The OSC will determine what assistance is required and will contact the necessary parties and organizations to conduct required containment, clean-up, and removal activities in the event of a spill. The Qualified Individual will continue as the On-Scene Commander unless and until relieved by a Corporate On-Scene Commander, a Federal On-Scene Commander, a State OSC, or another qualified, alternate OSC.

##### **4.8.1 On-Scene Commander Duties**

The Local On-Scene Commander shall take the following actions:

- Investigate any and all reports of leaks or spills to determine what actions need to be taken and which actions can be taken immediately to mitigate the spills or leaks.
- In the event of a major spill, determine if the spill can be stopped or contained by simple, immediate actions which can be performed safely with available personnel and equipment.
- If required, close all or part of the facility for the duration of the emergency.

- If fire or explosion potential is high, contact the local Hart County Sheriff's Department, the Hart County Fire Department, and the Georgia Highway Patrol to aid in the evacuation of the area, to prevent entry into the area by unauthorized persons, and to block off potentially affected highways.
- Notify the appropriate emergency response and regulatory agencies and activate the spill response plan.
- Contact corporate and contract personnel for immediate assistance with spill response and supplies.
- Contact spill response contractors to standby for or begin mobilization of personnel and equipment.
- Begin activities to contain spills and stabilize leaks.
- Begin recovery of spilled material and materials contaminated by spilled material as soon as possible and safely practical.
- Designate an equipment staging area and a separate area on the site for the safe containment and storage of contaminated soils, contaminated equipment and spilled materials. This containment area will serve to control materials and protect the environment until the ultimate disposition of the soils and materials can be determined and affected.

Spill response deployment resources, locations, recovery, and protection points are discussed in the spill response deployment plan located in Appendix D.

#### 4.9 Spill Response Contractors

Hartwell Energy Facility personnel are not equipped or trained to conduct significant spill response activities and will rely on contracted spill response contractors for all cleanup operations. Hartwell Energy Facility has spill response assistance contracts with the following companies capable of responding to a worst case discharge at Hartwell to the maximum extent practicable.

1. Phillips Recoveries, Inc.      Office: (800) 947-6805  
     Point of Contact:            Mike Phillips  
    Home: (b) (6)  
    Cellphone: (b) (6)
  
2. Remtech Engineers  
     Point of Contact:            Mark Ryckman  
    800-377-3648 x 203 or 770-427-7766 x 203  
    Cellphone: (b) (6)

#### 4.9.1 Response Equipment, Testing and Deployment

A list of the equipment and supplies available from these contractors is contained in Appendix A. Spill response deployment resources, locations, recovery, and protection points are discussed in the spill response deployment plan located in Appendix D.

#### 4.9.2 Response Personnel

The Hartwell Energy Facility personnel are not equipped or trained to conduct spill response and will rely on contracted spill response contractors for all cleanup operations. As discussed above, trained Contractor personnel will perform the tasks necessary for spill removal for the duration necessary to fully respond to the spill.

ORGANIZATION	CONTACT	PHONE NUMBER
Hartwell Energy Qualified Individual (Primary)	Mike McCollum	(O) 706-856-8009 (H) (b) (6) (C) [REDACTED]
Hartwell Energy Qualified Individual or Response Coordinator (Alternate)	Kenn Pittman	(O) (706) 376-7010 (C) (b) (6)
Remtech Engineers	Mark Ryckman	800-377-3648 x 203 or 770-427-7766 x 203
Phillips Recoveries, Inc. (Emergency Contractor)	Michael Phillips	800-947-6805 (H) (b) (6) (C) [REDACTED]
Plantation Pipe Line Company		(800) 510-5678
Colonial Pipeline Company		(800) 926-2728
Williams Gas Pipeline - Transco		(800) 440-8475
OPC Vice President of Environmental Affairs	Doug Fulle	(O) 770-270-7166 (H) (b) (6) (C) [REDACTED]
Weather Report	NOAA	770-632-1837
Hospital	Hart County Hospital	706-376-3921 or 911
Fire	Hart County Fire Department	706-376-8515 or 911
Fire / Hazmat	City of Hartwell Fire Dept.	706-856-3228 or 706-856-3209
Medical/Ambulance		706-365-3421 or 911
CHEMTREC		1-800-424-9300
Federal On-Scene Coordinator (OSC):	EPA Region IV (24-hour Spill Line)	404-562-8700
Georgia Environmental Protection Div. Emergency Response Team**	24-hour Dispatch (in state)	800-241-4113 404-656-4300
National Response Center		800-424-8802 202-267-2675
U.S. EPA, Region IV		404-562-8700
US DOT PHMSA OPS		202-366-4433

U.S. Coast Guard – Savannah		912-652-4181
City of Elberton Georgia	Water Withdrawal	706-283-5321
City of Hartwell, Georgia	Water Withdrawal	706-856-3211
City of Abbeville, South Carolina	Water Withdrawal	Normal 864-366-5058 Emergency 864-366-5677
US Army Corps of Engineers	Hartwell Dam & Lake Discharge	706-856-0300 or 888-893-0678
US Army Corps of Engineers	Russell Dam & Lake Discharge	706-213-3400 or 800-944-7207

## SECTION 5 - LISTS OF CONTACTS

### Organizations and Individuals to be contacted

The following contacts should be made in the event of a spill at the Hartwell Energy Facility. (Effective November 2014) The operator may be the first to notify the Qualified Individual; thereafter, notifications will typically be made by the Qualified Individual. Contact lists are presented also in Appendix E to facilitate ready access in the event of an incident.

### 5.1 Qualified Individuals and Alternate Qualified Individuals for Hartwell Facility Response

In the event of a release or threat of a release, the following individual(s) will be notified:

Date of Last Update: November 2014

Name	Phone <sup>1</sup>	Response time (min.)	Responsibility during response action	Response training type
Mike McCollum	404-683-2502	30 min	Qualified Individual - All aspects of response	24-hour HAZWOPER
Kenn Pittman	706-988-6179	20 min	Alternate Qualified Individual - All aspects of response	24-hour HAZWOPER
Brad Jordan	706-377-4337	30 min	Alternate Qualified Individual - All aspects of response	24-hour HAZWOPER

<sup>1</sup>Phone number to be used when person is not on-site.

### 5.2 Hartwell Facility Response Team

The Hartwell Facility Response team consists of the following personnel.

Name	Phone <sup>1</sup>	Response time (min.)	Responsibility during response action	Response training type
Mike McCollum	404-683-2502	30 min	Qualified Individual - All aspects of response	24-hour HAZWOPER
Kenn Pittman	706-988-6179	20 min	Alternate Qualified Individual - All aspects of response	24-hour HAZWOPER
Brad Jordan	706-377-4337	30 min	Alternate Qualified Individual - All aspects of response	24-hour HAZWOPER

Andy Wiltshire	706-779-7331	20 min	Response support	8-hour HAZWOPER
Debbie McKee	864-348-6054	30 min	Response support	8-hour HAZWOPER
Greg Gillespie	864-375-9287	30 min	Response support	8-hour HAZWOPER
Rusty Donald	864-261-7227	30 min	Response support	8-hour HAZWOPER

<sup>1</sup>Phone number to be used when person is not on-site.

### 5.3 Hartwell OSRO Contacts

<b>Remtech Engineers</b>	<b>Mark Ryckman</b>	<b>800-377-3648 x 203 or 770-427-7766 x 203</b>
<b>Phillips Recoveries, Inc. (Emergency Contractor)</b>	<b>Michael Phillips</b>	<b>800-947-6805 (H)(b) (6) C) [REDACTED]</b>

### 5.4 Hartwell Insurance Representative

24 Hour contact information for OPC's Insurance Representative is:

Tarik Bezuneh, Risk Manager  
 Work Phone: 770-270-7944  
 Cell: (b) (6)

The Risk Manager is an active participant in the OPC Incident Response Team described in Section 4 of this FRP.

## **SECTION 6 - TRAINING PROCEDURES**

This section contains a description of the fuel oil spill response training procedures and programs conducted at the Hartwell Facility. Hartwell regularly conducts training to ensure that all plant operations personnel understand their responsibilities under this Plan, as well as the contacts and procedures to be employed in the event of a spill or threat of significant spill at the Facility. As noted earlier, response to significant spills is delegated to an OSRO with the equipment and technical capability to handle a complex release.

Because the plant is small and in the event the Qualified Individual is unavailable to report a spill, personnel are also trained to know the contents of this plan, including the notification process and contacts. As a matter of course, all operating personnel also know the characteristics and risks of the fuel oil employed, and the immediate steps to be taken to reduce risk and mitigate adverse effects in the event of a discharge, described earlier in this Plan.

### **6.1 Personnel Training and Qualifications**

The Hartwell O&M Supervisor is responsible for personnel training. The O&M Supervisor ensures that all personnel are qualified for the work to be performed. Additionally, the O&M Supervisor provides the opportunity for selected individuals to attend specialized training classes on pertinent subjects. Some of these classes may include Environmental, Health, and Safety training, as well as other specialized training.

### **6.2 Ability Requirements**

No person is allowed to operate the storage and handling equipment of this Facility until he/she has read and understands the appropriate, applicable operating procedures maintained by the Facility for that person's scope of activity and has demonstrated ability to operate such equipment in prescribed manner.

All employees of Hartwell Energy are required to be able to demonstrate a level of proficiency in facility operations. Proficiency standard demonstrations are required prior to any employee being permitted to operate, store, process or handle equipment. That demonstration may be performed by the following:

- An ability to handle the Facility equipment.
- Thorough knowledge of grade and name of all products handled.
- Knowledge of capacities of all storage tanks and products assigned.
- Knowledge of location and operation of all piping and valves.
- Knowledge of location and operation of all safety equipment.
- Knowledge of location and operation of all oil spill containment equipment and method of use.
- Knowledge of emergency shut-down system.
- Knowledge of location and operation of communication method with shipping facilities.
- Knowledge of all operation and spill readiness procedures outlined in this plan.

Annual training sessions dedicated to this Plan are deemed necessary for present and future implementation. Training is conducted as per the OSHA 29 CFR 1910.120 HAZCOM regulations.

### 6.3 Training Program

The Facility personnel are properly instructed in the operation and maintenance of all equipment at the Facility. These duties include the prevention of discharges, spills, or releases of oil. No person is allowed to operate equipment or receive products at the Facility unless he or she is thoroughly trained and has demonstrated an ability to handle the assignments.

The training received by all personnel includes classroom instruction, safety and environmental briefings, supervised on-the-job training, and periodic formal review of the operating instructions and procedures used at the Facility. The training is performed using a twofold approach. First, training is performed by facility personnel on the following topics annually including the following:

- Fire Hose/Fire Extinguisher Use
- First Aid/CPR/Bloodborne Pathogens
- Emergency Response Plan (Drill)

The training program has been adapted to the specific needs of Hartwell Energy Facility operations. Proficiency must be demonstrated in each area and include the following:

- Electrical Safety
- Electrical Power Generation
- Facility Security
- Environmental Awareness, Air and Water
- Environmental Awareness, Waste and Chemicals
- First Aid
- Small Spills
- HazCom
- HAZWOPER First Responder

All Qualified Individuals and alternates have the 24-hour HAZWOPER Technician training which fulfills the following learning objectives:

- Understand the purpose of OSHA and its role in regulating occupational safety
- Use Site Characterization to establish problems that may exist in your workplace and measures that can be implemented to eliminate hazards
- Identify hazardous materials existent in the workplace and the possible methods, symptoms and preventative measures of exposure
- Encourage the use of Material Safety Data sheets (MSDS) to identify and properly handle hazardous materials
- Familiarity with materials, compounds and mixtures that may present flammable, explosive, chemical or radiological hazards
- Emphasize the importance of personal protective equipment in limiting hazardous exposure
- Establish an effective Site Control Program to limit the risk of exposure to only those working in the hazardous work zone
- Implement procedures for treating workers in the event of hazardous exposure

All personnel are instructed when new procedures are introduced, or when any procedures are modified. Training and recap of previous training is also performed when new equipment is introduced in the Facility. Logs documenting training for each employee are maintained at the facility.

#### **6.4 Emergency Response Training**

Emergency response training is an ongoing, continual, and critical process within the Facility. Emergency response training is integral to the O&M Technician training detailed in the Qualification & Certification Program for O&M Technicians. At least once a year, at an interval not exceeding 15 months, the Plant Administrator chairs an Emergency Response Training procedures meeting. This meeting reviews employee performance in meeting the objectives of the emergency response training program contained in the Qualification & Certification Program, and verifies that each supervisor possesses the emergency response knowledge necessary to perform their duties. This meeting is also used to evaluate and make necessary changes to the Facility's emergency response training program.

#### **6.5 Discharge Prevention Training/Meeting Logs**

Hartwell Energy Facility conducts annual training at the Facility. This training discusses spill prevention and cleanup, as well as the importance of employee awareness, visual observation, and prompt response in preventing spills. Training logs are maintained for all employees.

## **SECTION 7 - DRILL PROCEDURES**

This Section describes the drill procedures and programs Hartwell Energy facility uses to assess whether its response plan will function as planned.

### **7.1 Drills/Exercises and Response Training**

#### **7.1.1 Facility Drills/Exercises**

Drills and exercises are conducted in accordance with USCG PREP guidelines and are based on the requirements mandated by 33 CFR 154.1035 and NVIC 7-92. These drills include both announced and unannounced (at least one unannounced drill will be conducted in a triennial cycle) drills with participation by personnel from the Facility Response Team and the Response Contractors listed in Appendix A. Upon completion of drills/exercises, facility personnel will review and evaluate the drills/exercises to incorporate improvements and make changes as needed. Documentation of the drills/exercises and follow-up improvements and evaluations is maintained at the Facility.

#### **7.1.2 Qualified Individual (QI) Notification Drills**

Facility personnel and QI notification drills are conducted quarterly. During these drills, communications are exercised as required. At least once annually, the QI drill is conducted during non-business hours.

#### **7.1.3 Oil Spill Equipment Deployment Drills**

Facility equipment deployment drills are conducted by the contractors who will actually perform cleanup in the event of an actual spill, as described in Section 7.1.5 below.

#### **7.1.4 Spill Management Team Tabletop Exercise (SMT TTX) Drills**

Tabletop drills are conducted annually in accordance with PREP requirements. Participants include personnel from the local facility, and may include owner representatives, local response contractor, or local agencies. At least one SMT TTX in a triennial cycle will involve a worst case discharge scenario.

#### **7.1.5 Spill Response Contractor Equipment Drills**

The response contractor conducts drills each year, one announced or unannounced drill. Because the facility relies mainly on the local response contractor, only a small amount of spill response equipment is maintained by the Facility. Therefore, the response contractor's drills will be used to meet the requirement for facility equipment deployment drills in addition to satisfying the OSRO equipment drills requirement. A drill of the entire plan is conducted once every three years, which includes the Worst Case Discharge Scenario. Information on the Response Contractor, OSRO equipment, and drills is provided in Appendix A.

#### **7.1.5 Drill Documentation and Record Maintenance**

The response contractor maintains records of all announced and unannounced OSRO equipment/equipment deployment drills, and provides documentation of these drills to the Facility, which maintains copies of the documentation in their files. Notification drills and tabletop drills are maintained in Facility files. Documentation of each drill is maintained for three years

following completion of the drill.

During the drills, actions taken by the response team, both predicted and observed, are noted and any problems which arise are resolved immediately. A copy of the contracted OSRO's deployment exercises is included in Appendix D of this FRP.

## **SECTION 8 - RESPONSE PLAN REVIEW AND UPDATE PROCEDURES**

### **8.1 Plan Updates**

This Facility Response Plan will be reviewed and updated at least annually to verify that contacts and contact numbers are correct, and that it is consistent with the current requirements of 49 CFR §194 et seq., or other relevant federal, state, and local regulations. Upon receipt of official DOT approval of a version of the Plan, the Plan will be reviewed at intervals and based on events consistent with DOT requirements. The Hartwell Facility Manager has the responsibility for updating and distributing the FRP.

Amendments to the plan will be made by sequentially numbered revisions. Revisions will be documented on a transmittal sheet identifying the revision number, date, section numbers and pages affected, and any other instructions intended to emphasize or explain the revision. Pen and ink changes may be made for minor revisions only and the transmittal sheet may be used to accomplish the changes without submitting completely new pages for the revised sections.

### **8.2 Regulatory Updates to FRP**

Regulatory updates to the plan are required by applicable regulations. 49 CFR §194.121(a)(a) requires the operator to review the FRP every five years from the last approval date and to modify the plan to address new or different operating conditions that would significantly affect FRP implementation. If new or different conditions or information substantially affects the implementation of this plan, changes must be submitted to PHMSA within 30 days of making such change.

### **8.3 Mandatory Plan Revisions**

“Significant changes,” as defined by DOT and listed specifically below, require immediate revision of the FRP and re-submission to PHMSA within 30 days of making the change (49 CFR §194.121(b)). If new or different operating conditions and/or information will substantially affect the implementation of the FRP, DOT PHMSA OPS and EPA Region IV will be notified immediately, and plan modifications will be submitted within 30 days of the change.

PHMSA may also request a pipeline operator to revise and resubmit a response plan based on the agency’s review of the plan.

DOT defines significant changes to include:

- *An extension of the existing pipeline or construction of a new pipeline in a response zone not covered by the previously approved plan*
- *Relocation or replacement of the pipeline in a way that substantially affects the information included in the response plan, such as change to the WCD volume*
- *The type of oil transported, if the type affects the required resources*

- *The name of the oil spill removal organization*
- *Emergency response procedures*
- *The qualified individual*
- *A change in the NCP or ACP that has significant impact on the equipment appropriate for response activities, and*
- *Any other information relating to the circumstances that may affect full implementation of the Plan.*

#### **8.4 Other Plan Revisions**

There are several other possible bases for revision of the FRP. These include, but are not limited to:

1. Ideas generated from Training sessions regarding how to improve relevant areas, such as communication.
2. Clarification of problems and identification of solutions in areas such as equipment dispatch and deployment, communications, efficiency, and effectiveness of the response plan gleaned from Drills.
3. Advice from Environmental consultants regarding the state of the art in all areas of oil spill response plans.
4. Changes in requirements promulgated by Local, state and Federal agencies
5. Change in response procedures
6. Change in ownership
7. Post incident evaluation results
8. Post incident evaluations that identify improvements

#### **8.5 Periodic submittal**

Hartwell is submitting the electronic version of this revised FRP to EPA Region IV and DOT PHMSA OPS consistent with our commitment to do so. Hereafter, until the Hartwell pipeline is determined to be no longer in use and appropriately abandoned or decommissioned, Hartwell will submit a revised version every 5 years subsequent to the last plan approval, or more frequently if other changes occur. Copies of the most current FRP will be maintained by the Facility Manager as well as by the Qualified Individual and Alternate(s) consistent with the provisions of this Plan.

**SECTION 9 – RESPONSE ZONE APPENDICES (N/A)**

Because the Hartwell Pipeline is contained in one Response Zone, addressed in the core plan above, no Response Zone Appendices are included in this Plan. The necessary information pertaining to Response Zone 1, Line Section 1 is presented in the core material of this FRP.

## References

**CONCAWE. 1982. Methodologies for Hazard Analysis and Risk Assessment in the Petroleum Refining and Storage Industry. Prepared by CONCAWE's Risk Assessment Ad-hoc Group.**

**Hartwell Energy Facility Consolidated Spill Prevention, Control and Countermeasures Plan including Oil Pollution Act of 1990 Plans and Oil and Hazardous Materials Spill Response Plan, 2014, Hartwell Energy Facility, Hartwell, Georgia.**

**Hartwell Energy Facility Pipeline Integrity Management Plan, October 2012, Hartwell Energy Facility, Hartwell, Georgia.**

**U.S. Department of Housing and Urban Development. 1987. Siting of HUD-Assisted Projects Near Hazardous Facilities: Acceptable Separation Distances from Explosive and Flammable Hazards. Prepared by the Office of Environment and Energy, Environmental Planning Division, Department of Housing and Urban Development. Washington, DC.**

**U.S. DOT, FEMA and U.S. EPA. Handbook of Chemical Hazard Analysis Procedures.**

**U.S. DOT, FEMA and U.S. EPA. Technical Guidance for Hazards Analysis: Emergency Planning for Extremely Hazardous Substances.**

**USGS NWIS Water Resources Web Interface, Savannah River average flow data above Elberton, Georgia. 11/5/09, website: <http://waterdata.usgs.gov/ga/nwis/uv/>**

# Acronyms

**ACP: Area Contingency Plan**

**ASTM: American Society of Testing Materials**

**bbls: Barrels**

**bpd: Barrels per Day**

**bph: Barrels per Hour**

**CHRIS: Chemical Hazards Response Information System**

**CWA: Clean Water Act**

**DOI: Department of Interior**

**DOC: Department of Commerce**

**DOT: Department of Transportation**

**EPA: Environmental Protection Agency**

**FEMA: Federal Emergency Management Agency**

**FR: Federal Register**

**gal: Gallons**

**gpm: Gallons per Minute**

**HAZMAT: Hazardous Materials**

**LEPC: Local Emergency Planning Committee**

**MMS: Minerals Management Service (part of DOI)**

**NAICS: North American Industrial Classification System**

**NCP: National Oil and Hazardous Substances Pollution Contingency Plan**

**NOAA: National Oceanic and Atmospheric Administration (part of DOC)**

**NRC: National Response Center**

**NRT: National Response Team**

**OPA: Oil Pollution Act of 1990**

**OSC: On-Scene Coordinator**

**OSRO: Oil Spill Response Organization**

**PREP: National Preparedness for Response Exercise Program**

**RA: Regional Administrator**

**RCRA: Resource Conservation and Recovery Act**

**RRC: Regional Response Centers**

**RRT: Regional Response Team**

**RSPA: Research and Special Programs Administration**

**SARA: Superfund Amendments and Reauthorization Act**

**SERC: State Emergency Response Commission**

**SDWA: Safe Drinking Water Act of 1986**

**SI: Surface Impoundment**

**SPCC: Spill Prevention, Control, and Countermeasures**

**USCG: United States Coast Guard**

# HARTWELL ENERGY FACILITY RESPONSE PLAN

## APPENDIX A

Certification of consistency with ACP & NCP

Certification of Applicability of Significant and Substantial Harm Criteria

### Maps & Drawings

Figure 1	Site Location Map
Figure 2	Site Topographic Map
Figure 3	Site Plan
Figure 4	Site Drainage Plan
Figure 5	Site Evacuation Plan
Figure 6	Receiving Pipeline Diagram
Figure 7a	Map of Sensitive Areas (5-mile radius of Facility)
Figure 7b	Map of Sensitive Areas (1-mile radius of Facility)

### Worst Case Discharge

Discharge Planning Volume Calculation information

Recovery Capacity Calculations

### MSDS – Fuel Oil No. 2

Endangered Species in Hart County, Georgia

Endangered Species in Elbert County, Georgia

Endangered Species in Anderson County, South Carolina

Evidence that Facility has oil spill response contractors available

OSRO Contracts and Equipment Lists

Drill logs

### Certification of Consistency with ACP & NCP

This FRP is developed to be consistent with, and be used in conjunction with the National Contingency Plan (NCP); Region IV Area Contingency Plan (ACP); USEPA, USCG, and US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS) regulations; and applicable state and local regulations. The FRP is prepared in English as required. The NCP and ACP will be reviewed on an annual basis to determine if updates to the Facility Specific Response Plan are required.

#### Certification

I certify that this FRP is developed to be consistent with, and be used in conjunction with the NCP; Region IV ACP; USEPA, USCG, and US DOT PHMSA OPS regulations; and applicable state and local regulations.

Name / Title: DOUGLAS J. FULLE Vice President, ENVIRONMENTAL AFFAIRS

Signature/Date:  12/08/2014

**Appendix E:  
Certification of the Applicability of the Substantial Harm Criteria**

Facility Name:	Hartwell Energy Facility
Facility Address:	415 Smith-McGee Highway
Facility City/State/Zip	Hartwell, Georgia 30643

1. Does this "non-transportation-related" 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

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and 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 within any aboveground oil storage tank area?

Yes No

3. 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 Attachment C-III, 40 CFR Parts 9 and II 2 or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E, Section 10, 40 CFR Parts 9 and 112 for availability) and the applicable Area Contingency Plan.

Yes No

4. 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 Attachment C-111, 40 CFR Parts 9 and 112 or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2?

Yes No

5. 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

**Certification**

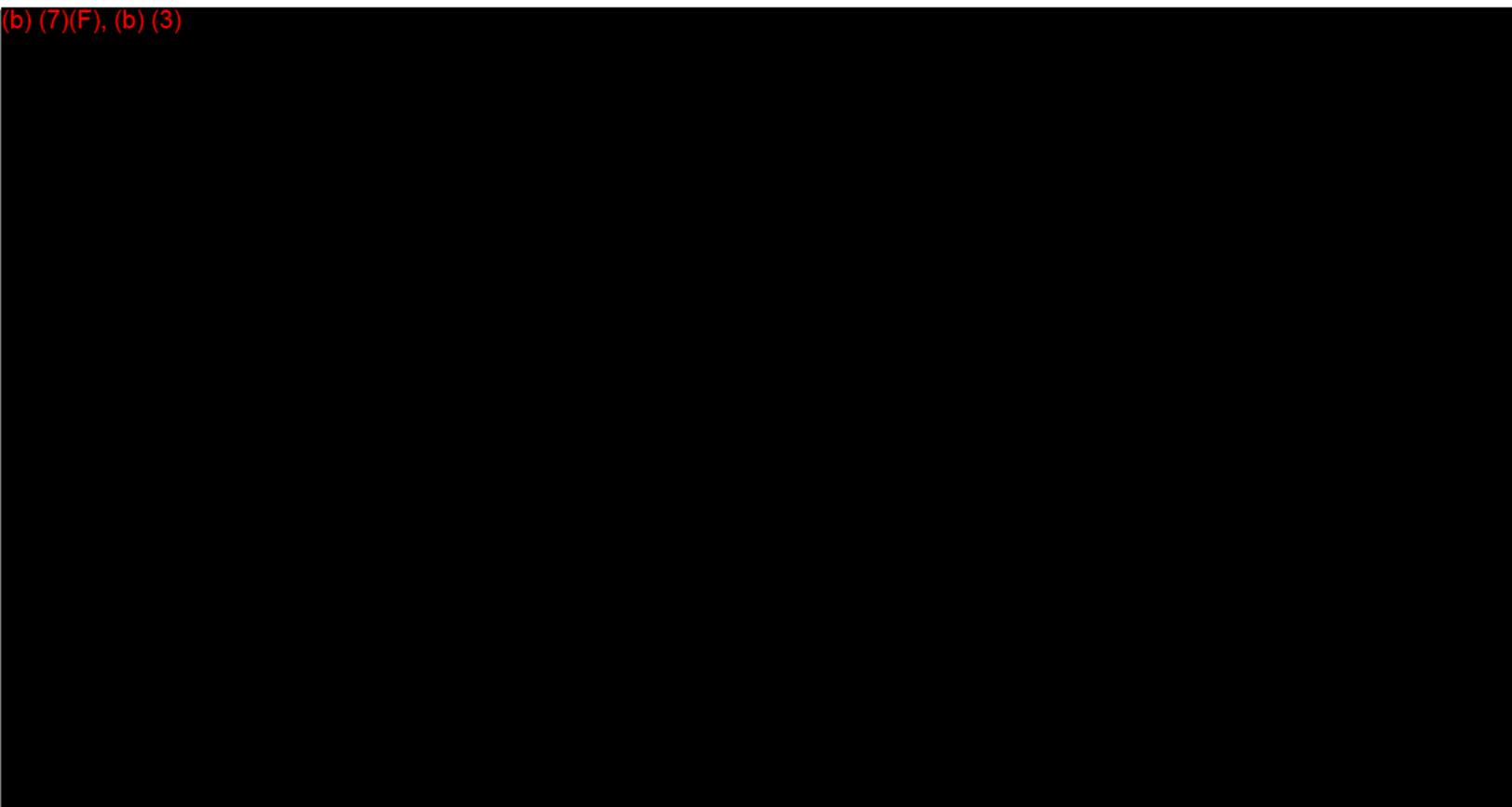
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, and accurate, and complete.

Name / Title: Richard D. Wallen / CT Fleet Manager

Signature/Date: Richard D. Wallen / 10-27-14

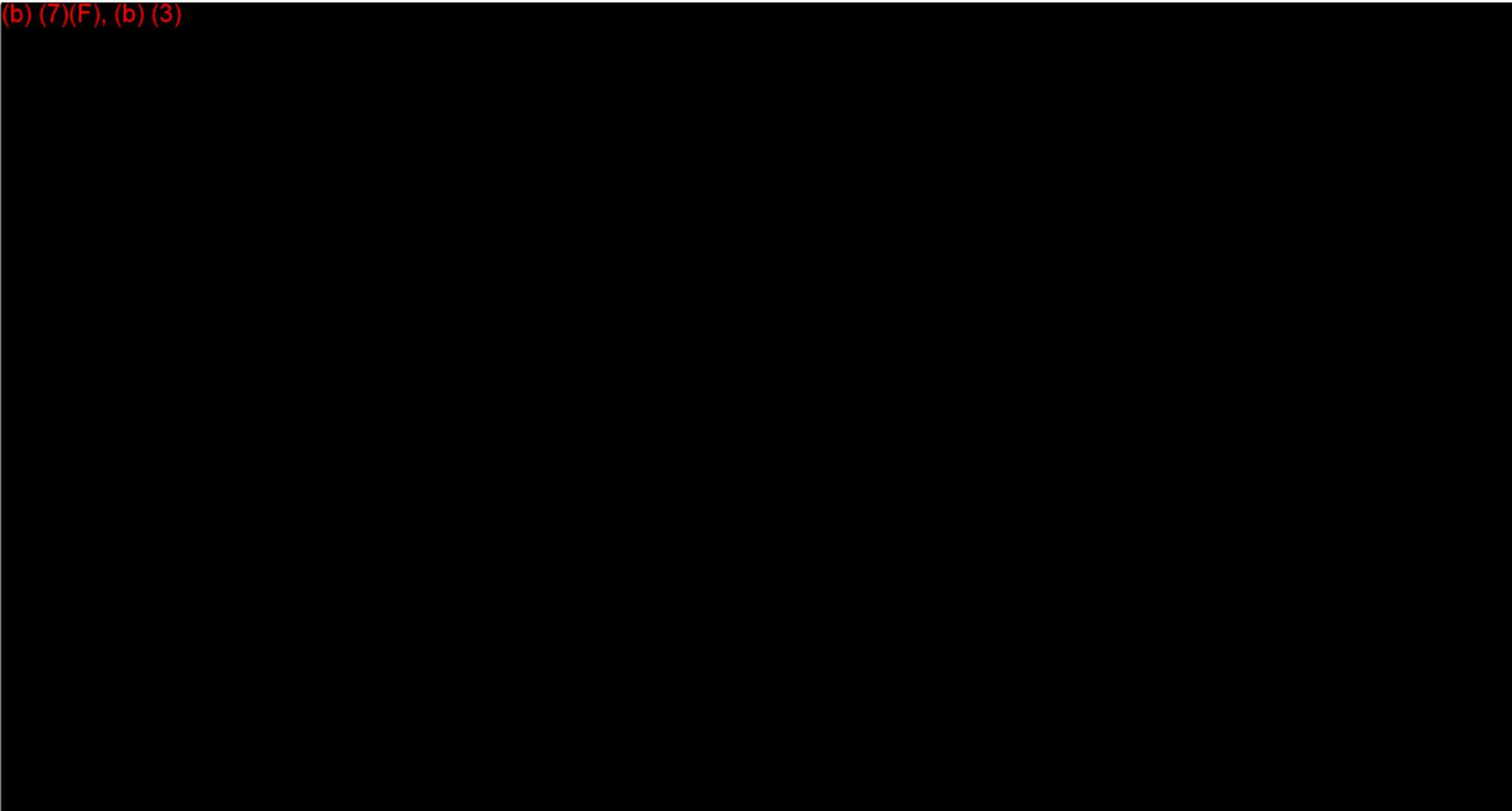
October 2014

(b) (7)(F), (b) (3)



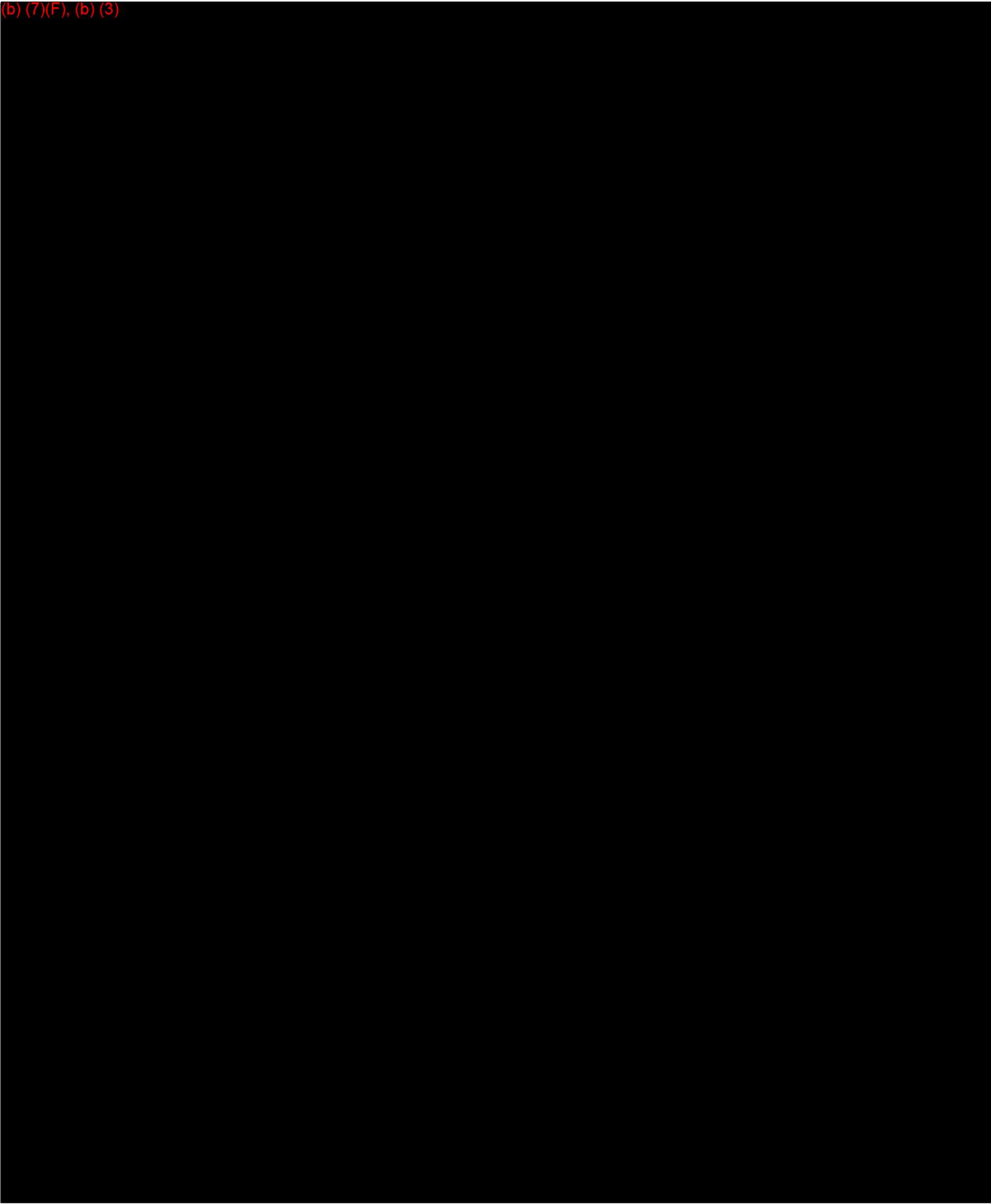
HARTWELL ENERGY FACILITY 415 SMITH-McGEE HIGHWAY HARTWELL, GA <small>PREPARED FOR</small> OGLETHORPE POWER CORPORATION	SITE LOCATION MAP	SHEET: FIG. 1
	<b>URS</b> <small>URS Corporation 400 Northpark Town Center 1000 Abernathy Road N.E., Suite 900 Atlanta, Georgia 30328 Tel: 8778 808-8800, Fax: 8778 808-8400</small>	PROJECT NO.
		SCALE: ↑ = 2000'
		DATE: 11-06-2009

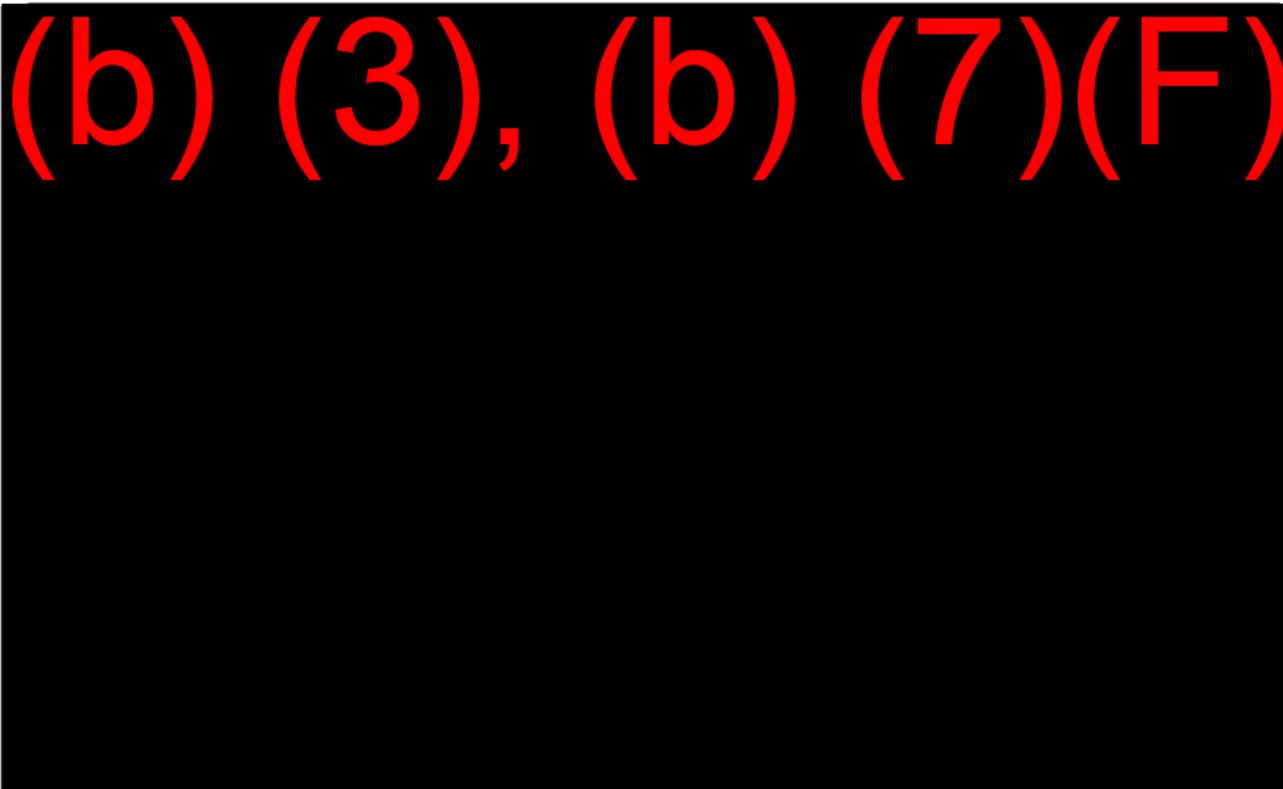
(b) (7)(F), (b) (3)



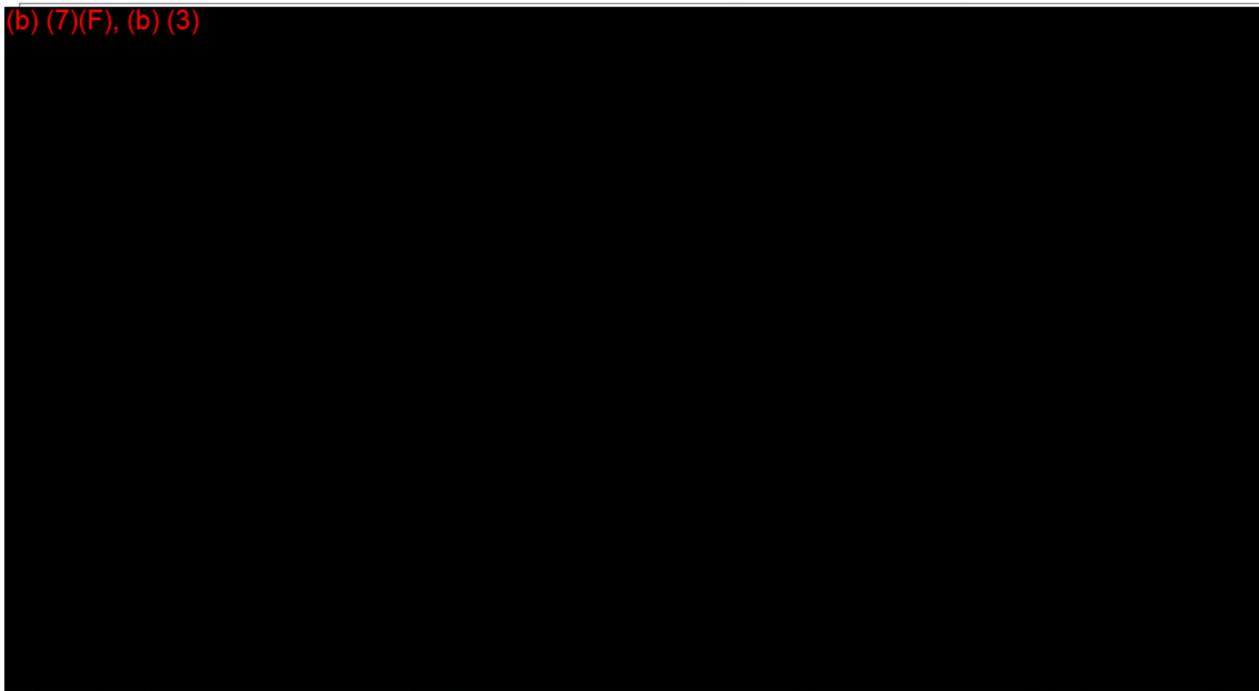
HARTWELL ENERGY FACILITY 415 SMITH-McGEE HIGHWAY HARTWELL, GA PREPARED FOR OGLETHORPE POWER	SITE TOPOGRAPHIC MAP	SHEET: FIG. 2
	 URS Corporation 400 Northpark Town Center 1000 Abernathy Road N.E., Suite 900 Atlanta, Georgia 30328 Tel: 877-8 808-8800, Fax: 877-8 808-8400	PROJECT NO.
		SCALE: 1" = 2000'
		DATE: 11-06-2009

(b) (7)(F), (b) (3)

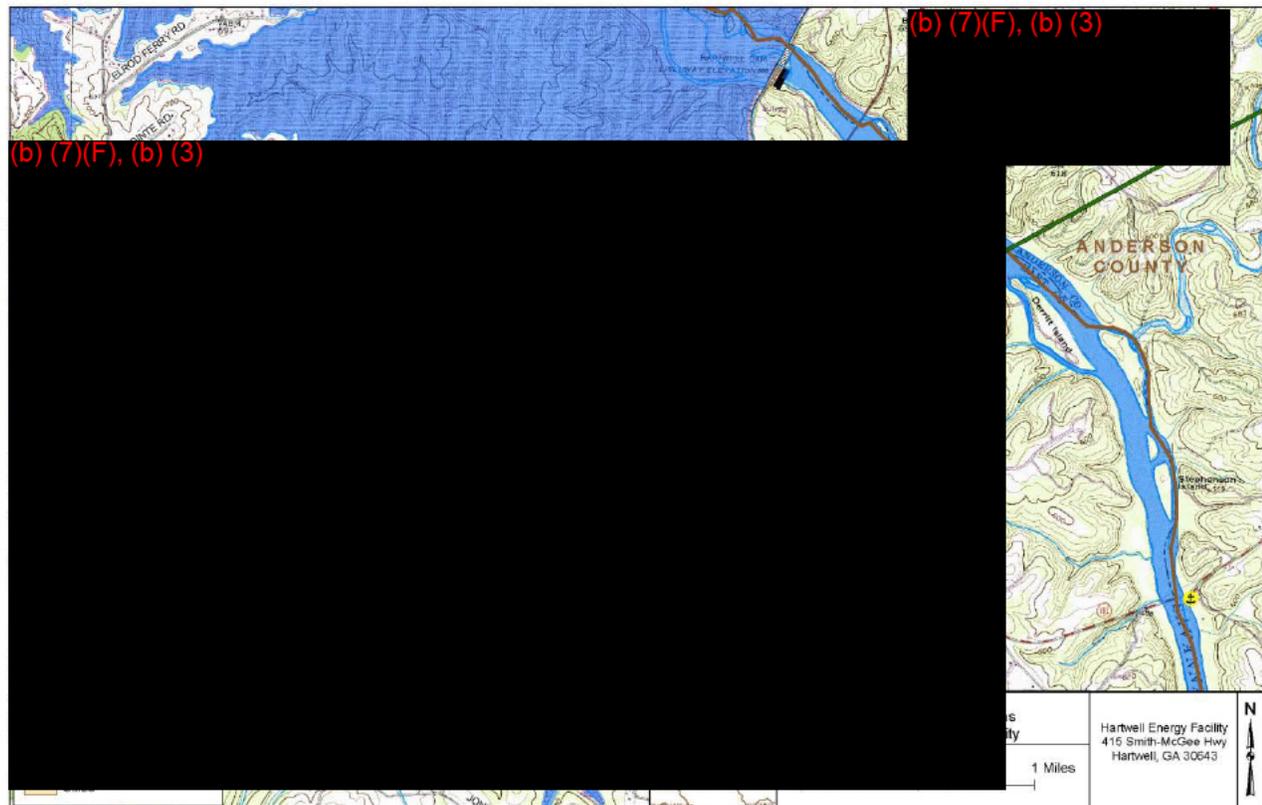
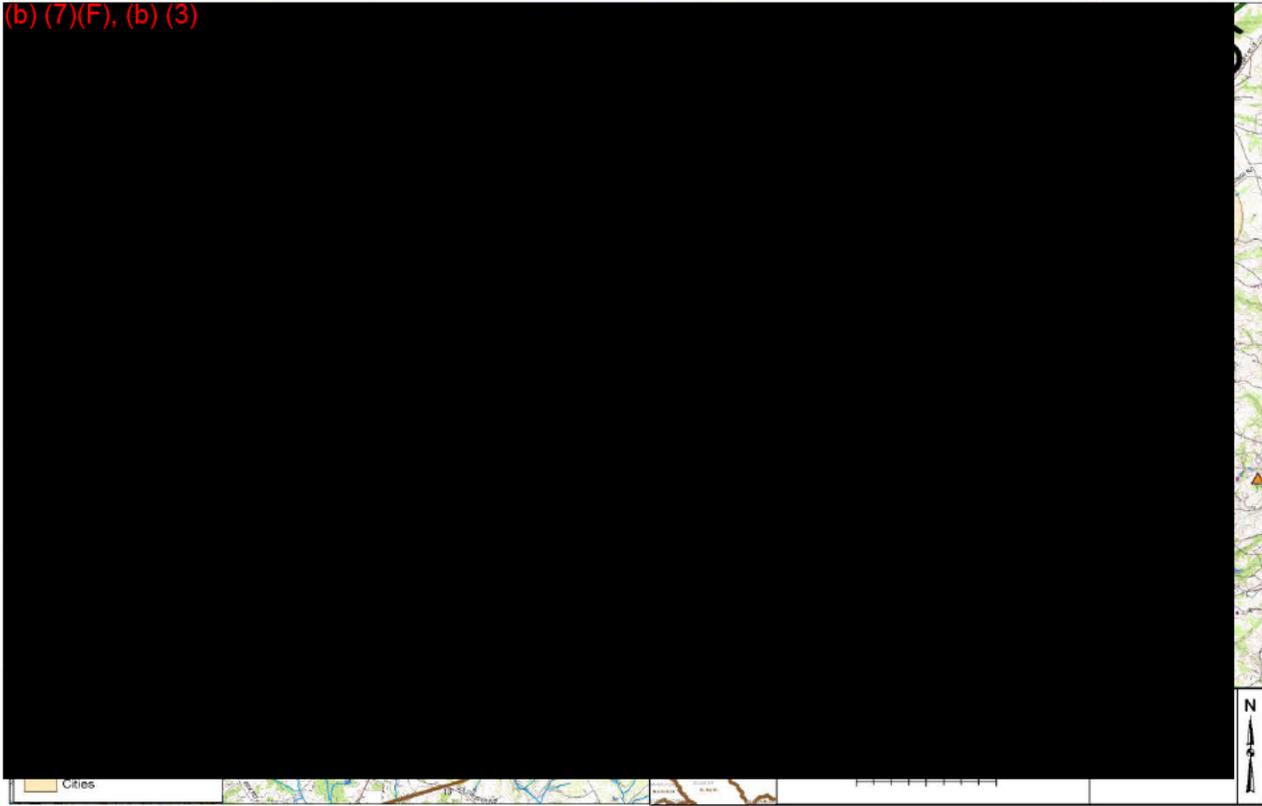




(b) (7)(F), (b) (3)



METERING STATION	EXPOSED PIPE	GROUNDWATER FLOW (GENERALIZED)	HARTWELL ENERGY FACILITY		RECEIVING PIPELINE DIAGRAM	FIG. 6
			415 SMITH-McGEE HIGHWAY		PROJECT NO.	
			HARTWELL, GA		DATE	
			OGLETHORPE POWER CORPORATION		SCALE 1" = 700'	
			400 Northpark Town Center		DATE	
			1000 Abernathy Road, N.E., Suite 900		T-06-2009	
			Atlanta, Georgia 30328			
			Tel: (878) 808-8800 Fax: (878) 808-8400			



## Appendix D: Discharge, Response, and Planning Calculations

### Response Time Calculations

When oil is released into the waterway which leads to the Savannah River, it must first travel along a channel which is approximately 750 feet wide by 4 feet deep. The channel drops at a rate of approximately 4 feet per mile. The channel is assumed to be parabolic in shape.

$$\begin{aligned} \text{Area of Channel} &= 0.667 * 750 * 4 = 2000 \text{ square feet} \\ \text{Channel Slope} &= 4/5280 = 0.0007575 = 7.575 * 10^{-4} \\ \text{Square root of Channel Slope} &= 0.27524 \\ \text{Hydraulic Radius of Section} &= [2T^2y] / [3T^2 + 8y^2] = R = 0.355 * 10^{-3} \\ R^{2/3} &= 0.2329 \\ \text{Channel Roughness} &= 0.033 \text{ [assumed]} \end{aligned}$$

$$V = \frac{1}{n} S^{1/2} R^{2/3}$$

$$\begin{aligned} \text{Velocity} &= 1.486 (R^{2/3})(S^{1/2}) / n \\ \text{Velocity} &= 0.317 \text{ feet per second} \end{aligned}$$

At the channel normal velocity flow is approximately 630 cubic feet per second. The travel time for a mile of flow in the channel is approximately 4.62 hours.

### Worst Case Discharge Planning Volume Calculation for Onshore Storage Facilities (From Appendix D to 40 CFR Part 112, Part A.2)

#### 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? No (Y/N)

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

A.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, plus the volume from question A.2.2. above.

FINAL WORST CASE VOLUME: (b) (7)(F), (b) (3)

## Appendix D: Discharge, Response, and Planning Calculations

### Planning Distance Calculation

Per 40 CFR 112, Appendix C, Attachment C-III

$$D = V \times T \times C$$

V = stream velocity (ft/sec)

T = substantial harm planning time interval (from Table 3, Attachment C-III)

C = conversion factor

D = distance downstream from facility within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down in the event of an oil discharge.

#### Channel that leads to the Savannah River

V =	0.317	ft/sec
T =	27	hours
C =	0.68	sec-mi / hr-ft
D =	5.82	miles

#### Savannah River

V =	2.80	ft/sec
T =	27	hours
C =	0.68	sec-mi / hr-ft
D =	51.41	miles

Note: the Savannah River velocity was estimated based on the average flow of 3857 cfs, from Lake Hartwell Dam Information available the USACE. Average flow data is from 1962 - 2009.

### Conclusion

The greatest single planning distance calculation is for the Savannah River. Therefore, the calculated planning distance for this Facility Response Plan is 51.41 miles.

Appendix D: Discharge, Response, and Planning Calculations		
WORST CASE DISCHARGE (WCD) PLANNING VOLUME CALCULATION		
DOT PIPELINE REQUIREMENTS 49 CFR PART 194		
Step (A)	Enter undetected release time in minutes	(b) (7)(F), (b) (3)
Step (B)	Enter response time in minutes	(b) (7)(F), (b) (3)
Step (C)	Enter pumping rate in barrels per hour	(b) (7)(F), (b) (3)
Step (D)	Enter pipeline data	(b) (7)(F), (b) (3)
	Calculate drain volume	(b) (7)(F), (b) (3)
Step (E)	Calculate spill volume:	(b) (7)(F), (b) (3)
Step (F)	Enter Volume of largest breakout tank	Not Applicable
	Tank is assumed to be within secondary containment and 50% will be contained	(b) (7)(F), (b) (3)
Step (G)	Calculate Worst Case Discharge Smaller of (E) or (F)*50%	(b) (7)(F), (b) (3)

**HARTWELL ENERGY FACILITY  
DISCHARGE PLANNING VOLUMES/RECOVERY CAPACITY REQUIRED  
FOR WORST CASE DISCHARGE**

**DISCHARGE PLANNING VOLUMES**

Oil Group	Small Spill	Medium Spill	Worst Case Spill
Group II Persistent Oils	(b) (7)(F), (b) (3)		

**RECOVERY CAPACITY REQUIRED**

	Required On Water Recovery Capacity (bbls/day)	Time of Deployment from Detection of Spill (hrs)	Resources Required to meet necessary recovery capacities (units)
<b>Group II Worst Case Discharge Resource Requirements</b>			
Tier 1	(b) (7)(F), (b) (3)		
Tier 2	(b) (7)(F), (b) (3)		
Tier 3	(b) (7)(F), (b) (3)		

Units = skimmers or pumps at 50 gpm.  
 Number of units = Recovery Capacity / R  
 $R = T \times 24 \text{ hrs} \times E = 342.9$   
 R = Effective daily recovery capacity of oil recovery devices  
 T = Throughput rate in barrels/hour = 71.4 barrels/hour  
 E = 20% efficiency factor

**HARTWELL ENERGY FACILITY  
WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES  
FOR WORST CASE DISCHARGE**

**No. 2 FUEL OIL - GROUP II : PERSISTENT OILS – Page 1 of 2**

**Part I Background Information**

Step (A)	Calculate Worst Case Discharge in barrels (largest tank at the facility )	(b) (7)(F), (b) (3)	
Step (B)	Oil Group (Table 3 and section 1.3 of appendix E)	Group II	
Step (C)	Operating Area (choose one)	Nearshore/Inland Great Lakes	or Rivers and Canals
Step (D)	Percentages of Oil (Table 2 of Appendix E)	Percent Oil Onshore	
	Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	45%
	(D1) 40%	(D2) 15%	(D3)
Step (E1)	On-Water Oil Recovery	<u>Step (D2) x Step (A)</u>	(b) (7)(F), (b) (3)
		100	
Step (E2)	Shoreline Recovery	<u>Step (D3) x Step (A)</u>	
		100	
Step (F)	Emulsification Factor (Table 3 of Appendix E)	(b) (7)(F), (b) (3)	

No. 2 FUEL OIL - GROUP II : PERSISTENT OILS – Page 2 of 2

Step (G) On-Water Oil Recovery Resource Mobilization Factor  
(Table 4 of Appendix E)

Tier 1	Tier 2	Tier 3
0.30	0.40	0.60
(G1)	(G2)	(G3)

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

Tier 1	Tier 2	Tier 3
(b) (7)(F), (b) (3)		

Part III Shoreline Cleanup Volume (barrels)

(b) (7)(F), (b) (3)
---------------------

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

Tier 1	Tier 2	Tier 3
(b) (7)(F), (b) (3)		

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

Tier 1	Tier 2	Tier 3
(b) (7)(F), (b) (3)		

# Safety Data Sheet

According to OSHA HCS 2012 (29 CFR 1910.1200)



## Section 1: Identification

<b>Product Identifier:</b>	<b>No. 2 Diesel Fuel</b>	
<b>Other means of identification:</b>	#2DSL ULS (All Grades); #2DSL HS (All Grades); #2DSL LS (All Grades); CARB DSL (All Grades); DIST CARB-Diesel (All Grades); Distillate, Diesel (All Grades); Gas Oil (All Grades); Hydrodewaxer Diesel (All Grades); Diesel Fuel (All Grades); EPA Diesel Fuel (All Grades); No. 2 Diesel (All Grades); No. 2 Diesel Fuel Oil (All Grades); No. 2 Distillate; No. 2 Diesel with Renewable Diesel (All Grades); Super Diesel Fuel (All Grades); Distillate Blend Stock; Fuels, Diesel; Virgin Diesel Fuel	
<b>SDS Number:</b>	<b>001847</b>	
<b>MARPOL Annex I Category:</b>	Gas Oils, Including Ship's Bunkers	
<b>Intended Use:</b>	Fuel	
<b>Uses Advised Against:</b>	All others	
<b>Emergency Health and Safety Number:</b>	CHEMTREC 800-424-9300 (24 Hours)	
	CANUTEC 613-996-6666	
	CHEMTREC Mexico 01-800-681-9531	
<b>Manufacturer:</b>	<b>SDS Information:</b>	<b>Customer Service:</b>
Phillips 66 Company	Phone: 800-762-0942	800-527-5476
P.O. Box 4428	Email: SDS@P66.com	<b>Technical Information:</b> 800-527-5476
Houston, Texas 77210	URL: www.Phillips66.com	

## Section 2: Hazards Identification

<b>Classified Hazards</b>	<b>Other Hazards</b>
H226 -- Flammable liquids -- Category 3	Electrostatic charge may be generated during pumping and other operations.
H315 -- Skin corrosion/irritation -- Category 2	
H304 -- Aspiration Hazard -- Category 1	
H332 -- Acute toxicity, Inhalation -- Category 4	
H373 -- Specific target organ toxicity (repeated exposure) -- Category 2	
H351 -- Carcinogenicity -- Category 2	
H410 -- Hazardous to the aquatic environment, chronic toxicity -- Category 1	

### Label Elements

   	<p><b>DANGER</b></p> <p>Flammable liquid and vapor          Causes skin irritation          May be fatal if swallowed and enters airways          Harmful if inhaled          May cause damage to organs through prolonged or repeated exposure          Suspected of causing cancer          Very toxic to aquatic life with long lasting effects</p> <p>Obtain special instructions before use; Do not handle until all safety precautions have been read and understood; Keep away from heat/sparks/open flames/hot surfaces. - No smoking; Keep away from any possible contact with water, because of violent reaction and possible flash fire; Ground/bond container and receiving equipment; Use only non-sparking tools; Take precautionary measures against static discharge; Do not breathe dust/fume/gas/mist/vapours/spray; Wash thoroughly after handling; Use only outdoors or in a well-ventilated area; Avoid release to the environment; Wear protective gloves / protective clothing / eye protection / face protection; IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician; Do NOT induce vomiting; IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower; IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing; Call a POISON CENTER or doctor/physician if you feel unwell; Take off contaminated clothing and wash before reuse; In case of fire: Use dry chemical, carbon dioxide, or foam for extinction; Store in a well-ventilated place. Keep cool; Dispose of contents/container to approved disposal facility</p>
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### Section 3: Composition / Information on Ingredients

Chemical Name	CASRN	Concentration <sup>†</sup>
Fuels, diesel, no. 2	68476-34-6	95-100
Naphthalene	91-20-3	<1

Total Sulfur: < 0.1 wt%

<sup>†</sup> All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### Section 4: First Aid Measures

**Eye Contact:** If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

**Skin Contact:** Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops, seek medical attention. Wash contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician. (see Note to Physician)

**Inhalation (Breathing):** If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**Ingestion (Swallowing):** Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

**Most important symptoms and effects, both acute and delayed:** While significant vapor concentrations are not likely, high concentrations can cause minor respiratory irritation, headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Ingestion can cause irritation of the digestive tract, nausea, diarrhea, and vomiting. Dry skin and possible irritation with repeated or prolonged exposure.

**Notes to Physician:** When using high-pressure equipment, injection of product under the skin can occur. In this case, the casualty should be sent immediately to the hospital. Do not wait for symptoms to develop. High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. These injuries often require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of injury. Early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

### Section 5: Fire-Fighting Measures

#### NFPA 704 Hazard Class

Health: 1 Flammability: 2 Instability: 0



0 (Minimal)  
1 (Slight)  
2 (Moderate)  
3 (Serious)  
4 (Severe)

**Extinguishing Media:** Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

**Specific hazards arising from the chemical**

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**Unusual Fire & Explosion Hazards:** Flammable. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Vapors may travel considerable distances to a source of ignition where they can ignite, flash back, or explode. May create vapor/air explosion hazard indoors, in confined spaces, outdoors, or in sewers. This product will float and can be reignited on surface water. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

**Hazardous Combustion Products:** Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

**Special protective actions for firefighters:** For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading burning liquid with water used for cooling purposes.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

## Section 6: Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Avoid direct contact with material. For large spillages, notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

**Environmental Precautions:** Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use foam on spills to minimize vapors. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water notify appropriate authorities and advise shipping of any hazard. Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface of the water, may require notification of the National Response Center (phone number 800-424-8802).

**Methods and material for containment and cleaning up:** Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

## Section 7: Handling and Storage

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**Precautions for safe handling:** Keep away from ignition sources such as heat/sparks/open flame – No smoking. Take precautionary measures against static discharge. Nonsparking tools should be used. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors or mists. Use only outdoors or in well-ventilated area. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8). Flammable. May vaporize easily at ambient temperatures. The vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low lying areas. Open container slowly to relieve any pressure. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment.

For use as a motor fuel only. Do not use as a solvent due to its flammable and potentially toxic properties. Siphoning by mouth can result in lung aspiration which can be harmful or fatal.

The use of hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of incomplete combustion products (e.g. carbon monoxide, oxides of sulfur and nitrogen, benzene and other hydrocarbons) and/or dangerously low oxygen levels.

Diesel engine exhaust contains hazardous combustion products and has been identified as a cancer hazard. Exposure should be minimized to reduce potential risk.

**Static Accumulation Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding of tanks, transfer piping, and storage tank level floats are necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. Special care should be given to ensure that special slow load procedures for "switch loading" are followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil or diesel) is loaded into tanks previously containing low flash point products (such as gasoline or naphtha). For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Conditions for safe storage:** Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Store only in approved containers. Post area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

### Section 8: Exposure Controls / Personal Protection

Chemical Name	ACGIH	OSHA	Other
Fuels, diesel, no. 2	TWA: 100 mg/m <sup>3</sup> Skin	—	100 mg/m <sup>3</sup> TWA8hr 50 mg/m <sup>3</sup> TWA12hr 13 ppm TWA8hr 6.5 ppm TWA12hr (Phillips 66 Guidelines)

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Naphthalene	STEL: 15 ppm TWA: 10 ppm 10 ppm TWA; skin; A3 - confirmed animal carcinogen with unknown relevance to humans; TLV basis: upper respiratory tract irritation Skin	TWA: 10 ppm : 50 mg/m <sup>3</sup>	---
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**Note:** State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

**Eye/Face Protection:** The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, a face shield may be necessary.

**Skin/Hand Protection:** The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and use conditions, additional protection may be necessary to prevent skin contact including use of items such as chemical resistant boots, aprons, arm covers, hoods, coveralls, or encapsulated suits. Suggested protective materials: Nitrile

**Respiratory Protection:** Where there is potential for airborne exposure above the exposure limit a NIOSH certified air purifying respirator equipped with organic vapor cartridges/canisters may be used.

A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health (IDLH).

**Other Protective Equipment:** Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.

**Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.**

### Section 9: Physical and Chemical Properties

**Note:** Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm). Data represent typical values and are not intended to be specifications.

**Appearance:** Straw colored to dyed red

**Physical Form:** Liquid

**Odor:** Diesel fuel

**Odor Threshold:** No data

**pH:** Not applicable

**Vapor Density (air=1):** > 3

**Upper Explosive Limits (vol % in air):** 10.0

**Lower Explosive Limits (vol % in air):** 0.3

**Evaporation Rate (nBuAc=1):** <1

**Particle Size:** Not applicable

**Percent Volatile:** Negligible @ ambient conditions

**Flammability (solid, gas):** Not applicable

**Flash Point:** 125 - 180 °F / 52 - 82 °C

**Test Method:** Pensky-Martens Closed Cup (PMCC), ASTM D93, EPA 1010

**Initial Boiling Point/Range:** 300 - 690 °F / 149 - 366 °C

**Vapor Pressure:** 0.40 mm Hg

**Partition Coefficient (n-octanol/water) (Kow):** No data

**Melting/Freezing Point:** No data

**Auto-ignition Temperature:** 500 °F / 260 °C

**Decomposition Temperature:** No data

**Specific Gravity (water=1):** 0.81-0.88 @ 60°F (15.6°C)

**Bulk Density:** 7.08 lbs/gal

**Viscosity:** N/D

**Solubility in Water:** Negligible

### Section 10: Stability and Reactivity

**Reactivity:** Not chemically reactive.

**Chemical stability:** Stable under normal ambient and anticipated conditions of use.

**Possibility of hazardous reactions:** Hazardous reactions not anticipated.

**Conditions to avoid:** Avoid high temperatures and all sources of ignition. Prevent vapor accumulation.

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**Incompatible materials:** Avoid contact with strong oxidizing agents and strong reducing agents.

**Hazardous decomposition products:** Not anticipated under normal conditions of use.

## Section 11: Toxicological Information

### Information on Toxicological Effects of Substance/Mixture

Substance / Mixture			
Acute Toxicity	Hazard	Additional Information	LC50/LD50 Data
Inhalation	Harmful if inhaled		4.65 mg/L (mist)
Dermal	Unlikely to be harmful		>4.1 g/kg
Oral	Unlikely to be harmful		> 5 g/kg

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Skin Corrosion/Irritation:** Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

**Serious Eye Damage/Irritation:** Causes mild eye irritation.

**Skin Sensitization:** Not expected to be a skin sensitizer.

**Respiratory Sensitization:** Not expected to be a respiratory sensitizer.

**Specific Target Organ Toxicity (Single Exposure):** Not expected to cause organ effects from single exposure.

**Specific Target Organ Toxicity (Repeated Exposure):** May cause damage to organs through prolonged or repeated exposure. Repeated dermal application of petroleum gas oils for 90 days resulted in decreased liver, thymus, and spleen weights, and altered bone marrow function. Microscopic alterations included liver hypertrophy and necrosis, decreased hematopoiesis and lymphocyte depletion.

**Carcinogenicity:** Suspected of causing cancer. Petroleum middle distillates have been shown to cause skin tumors in mice following repeated and prolonged skin contact. Follow-up studies have shown that these tumors are produced through a non-genotoxic mechanism associated with frequent cell damage and repair, and that they are not likely to cause tumors in the absence of prolonged skin irritation.

**Germ Cell Mutagenicity:** Not expected to cause heritable genetic effects.

**Reproductive Toxicity:** Not expected to cause reproductive toxicity.

**Other Comments:** Diesel engine exhaust has been classified by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a carcinogen.

### Information on Toxicological Effects of Components

#### Naphthalene

**Carcinogenicity:** Naphthalene has been evaluated in two year inhalation studies in both rats and mice. The US National Toxicology Program (NTP) concluded that there is clear evidence of carcinogenicity in male and female rats based on increased incidences of respiratory epithelial adenomas and olfactory epithelial neuroblastomas of the nose. NTP found some evidence of carcinogenicity in female mice (alveolar adenomas) and no evidence of carcinogenicity in male mice. Naphthalene has been identified as a carcinogen by IARC and NTP.

## Section 12: Ecological Information



### GHS Classification:

**H410 -- Hazardous to the aquatic environment, chronic toxicity -- Category 1**  
Very toxic to aquatic life with long lasting effects.

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**Toxicity:** Experimental studies of gas oils show that acute aquatic toxicity values are typically in the range 2-20 mg/L. These values are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon compositions. They should be regarded as toxic to aquatic organisms, with the potential to cause long term adverse effects in the aquatic environment.

**Persistence and Degradability:** Gas oils are complex combinations of individual hydrocarbon species. Based on the known or expected properties of individual constituents, category members are not predicted to be readily biodegradable. Some hydrocarbon constituents of gas oils are predicted to meet the criteria for persistence; on the other hand, some components can be easily degraded by microorganisms under aerobic conditions.

**Persistence per IOPC Fund definition:** Non-Persistent

**Bioaccumulative Potential:** Gas oil components have measured or calculated Log Kow values in the range of 3.9 to 6 which indicates a high potential to bioaccumulate. Lower molecular weight compounds are readily metabolized and the actual bioaccumulation potential of higher molecular weight compounds is limited by the low water solubility and large molecular size.

**Mobility in Soil:** Releases to water will result in a hydrocarbon film floating and spreading on the surface. For the lighter components, volatilization is an important loss process and reduces the hazard to aquatic organisms. In air, the hydrocarbon vapors react readily with hydroxyl radicals with half-lives of less than one day. Photooxidation on the water surface is also a significant loss process particularly for polycyclic aromatic compounds. In water, the majority of components will be adsorbed on sediment. Adsorption is the most predominant physical process on release to soil. Adsorbed hydrocarbons will slowly degrade in both water and soil.

**Other adverse effects:** None anticipated.

### Section 13: Disposal Considerations

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations. This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste. However, it would likely be identified as a federally regulated RCRA hazardous waste for the following characteristic(s) shown below. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the SDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste. Container contents should be completely used and containers should be emptied prior to discard. Container residues and rinseates could be considered to be hazardous wastes.

**EPA Waste Number(s)**

- D001 - Ignitability characteristic

### Section 14: Transport Information

**U.S. Department of Transportation (DOT)**

**Shipping Description:**

*Aquatic toxicity studies indicate this material may be classified as a Marine Pollutant under IMDG Code. It is not currently regulated as a marine pollutant by the USDOT. If there is not a Shipping Description or other DOT marking, labeling, placarding and packaging references shown in this section, it is not regulated as a hazardous material by the USDOT.*

**Non-Bulk Package Marking:**

UN1202, Diesel fuel, Combustible liquid III

**Non-Bulk Package Labeling:**

Not Regulated [49 CFR 173.150(f)(2)]

**Bulk Package/Placard Marking:**

Not Regulated [49 CFR 173.150(f)(2)]

**Packaging - References:**

Combustible / 1993  
None; None; 49 CFR 173.241  
(Exceptions; Non-bulk; Bulk)

**Emergency Response Guide:**

128

**Note:**

\*\*NA1993 may be used instead of UN1202 for domestic land transportation.

**Bulk Package/Placard Marking would also be changed to:** 1202  
Container(s) greater than 5 liters (liquids) or 5 kilograms (solids), shipped by water mode and ALL bulk shipments may require the shipping description to contain the "Marine Pollutant" notation [49 CFR 172.203(l)] and the container(s) to display the [Marine Pollutant Mark] [49 CFR 172.322].

**International Maritime Dangerous Goods (IMDG)**

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**Shipping Description:** *If flashpoint is >60° C closed-cup and the material meets the IMDG definition of a Marine Pollutant, an alternate shipping name such as "Environmentally hazardous substance, n.o.s." with hazard class 9 and PG III must be used.*  
UN1202, Diesel fuel, 3, III, ( FP° C cc), [where FP is the material's flash point in degrees Celsius closed cup]

**Non-Bulk Package Marking:** Diesel fuel, UN1202  
**Labels:** Flammable liquid  
**Placards/Marking (Bulk):** Flammable / 1202  
**Packaging - Non-Bulk:** P001, LP01  
**EMS:** F-E, S-E  
**Note:** *Proper Shipping name can be: Gas Oil or Diesel fuel or Heating Oil, light*  
*If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I.*  
*If container(s) is greater than 5 liters (liquids) or 5 kilograms (solids), shipment may require the shipping description to contain the "Marine Pollutant" description [IMDG 5.4.1.4.3.5] and the container(s) to display the Marine Pollutant mark [IMDG 5.2.1.6].*

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:**  
Not applicable

**International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)**

**UN/ID #:** *Not regulated if flashpoint is >60° C closed-cup*  
UN1202  
**Proper Shipping Name:** Diesel fuel  
**Hazard Class/Division:** 3  
**Packing Group:** III  
**Non-Bulk Package Marking:** Diesel fuel, UN1202  
**Labels:** Flammable liquid  
**ERG Code:** 3L  
**Note:** *If container(s) is greater than 5 liters (liquids) or 5 kilograms (solids), shipment may require the container to display the "Environmentally hazardous substance" mark [IATA 7.1.6.3].*

	LTD. QTY	Passenger Aircraft	Cargo Aircraft Only
<b>Packaging Instruction #:</b>	Y344	355	366
<b>Max. Net Qty. Per Package:</b>	10 L	60 L	220 L

**Section 15: Regulatory Information**

**CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):**

This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

**CERCLA/SARA - Section 311/312 (Title III Hazard Categories)**

**Acute Health Hazard:** Yes  
**Chronic Health Hazard:** Yes  
**Fire Hazard:** Yes  
**Pressure Hazard:** No  
**Reactive Hazard:** No

**CERCLA/SARA - Section 313 and 40 CFR 372:**

This material contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372:

Chemical Name	Concentration	de minimis
Naphthalene	<1	0.1%

**EPA (CERCLA) Reportable Quantity (in pounds):**

EPA's Petroleum Exclusion applies to this material - (CERCLA 101(14)).

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#### **California Proposition 65:**

Warning: This material may contain detectable quantities of the following chemicals, known to the State of California to cause cancer, birth defects or other reproductive harm, and which may be subject to the warning requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Chemical Name	Type of Toxicity
Naphthalene	Cancer

Diesel engine exhaust is on the Proposition 65 list of chemicals known to the State of California to cause cancer.

#### **International Hazard Classification**

##### **Canada:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

##### **WHMIS Hazard Class:**

B3 - Combustible liquid  
D1B - Toxic materials  
D2A - Very toxic materials  
D2B - Toxic materials

#### **National Chemical Inventories**

All components are either listed on the US TSCA inventory, or are not regulated under TSCA.  
All components are either on the DSL, or are exempt from DSL listing requirements.

U.S. Export Control Classification Number: EAR99

#### **Section 16: Other Information**

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#### **Revised Sections or Basis for Revision:**

Exposure limits (Section 8)

#### **Guide to Abbreviations:**

ACGIH = American Conference of Governmental Industrial Hygienists; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; GHS = Globally Harmonized System; IARC = International Agency for Research on Cancer; INSHT = National Institute for Health and Safety at Work; IOPC = International Oil Pollution Compensation; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

#### **Disclaimer of Expressed and Implied Warranties:**

The information presented in this Safety Data Sheet is based on data believed to be accurate as of the date this Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.

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## WILDLIFE RESOURCES DIVISION

Known occurrences of special concern plants, animals and natural communities  
Hart County — Fips Code: 13147

Find details for these species at [Georgia Rare Species and Natural Community Data](#) and [NatureServe Explorer](#).

**[US]** indicates species with federal status (Protected or Candidate).  
Species that are federally protected in Georgia are also state protected.  
**[GA]** indicates Georgia protected species.  
 link to species profile on our site (not available for all species).  
 link to report for element on NatureServe Explorer (only available for animals and plants).

### Animal Occurrences

- *Haliaeetus leucocephalus* (Bald Eagle) **[GA]**   - bird
- *Notropis scepticus* (Sandbar Shiner) **[GA]**   - fish
- *Tyto alba* (Barn owl)  - bird

### Plant Occurrences

- *Tradescantia roseolens* (Rosy Spiderwort) 
- *Trillium discolor* (Pale Yellow Trillium)  

Generated from Georgia DNR's NatureServe Biotics conservation database on October 12, 2011

[http://georgiawildlife.com/sites/default/files/uploads/wildlife/nongame/text/html/cnty\\_eos...](http://georgiawildlife.com/sites/default/files/uploads/wildlife/nongame/text/html/cnty_eos...) 10/27/2014



**Known occurrences of special concern plants, animals and natural communities  
Elbert County — Fips Code: 13105**

Find details for these species at [Georgia Rare Species and Natural Community Data](#) and [NatureServe Explorer](#).

**[US]** indicates species with federal status (Protected or Candidate).  
Species that are federally protected in Georgia are also state protected.  
**[GA]** indicates Georgia protected species.  
 link to species profile on our site (not available for all species).  
 link to report for element on NatureServe Explorer (only available for animals and plants).

**Animal Occurrences**

- *Cambarus strigosus* (Lean Crayfish) **[GA]** - crustacean
- *Disfocambarus devexus* (Broad River Burrowing Crayfish) **[GA]** - crustacean
- *Moxostoma robustum* (Robust Redhorse) **[GA]** - fish
- *Notropis scopificus* (Sandbar Shiner) **[GA]** - fish
- *Somalogyrus tenax* (Savannah Pebblesnail) - mollusk

**Plant Occurrences**

- *Clematis ochroleuca* (Curly-heads)
- *Juniperus communis var. depressa* (Ground Juniper)
- *Lotus helleri* (Carolina Trefoil) **[GA]**
- *Monotropa odorata* (Sweet Pinesap) **[GA]**
- *Quercus oglethorpensis* (Oglethorpe Oak) **[GA]**
- *Rhus michauxii* (Dwarf Sumac) **[US]**
- *Scirpus expansus* (Woodland Bulrush)
- *Sedum pusillum* (Granite Stonecrop) **[GA]**
- *Thermopsis fraxinifolia* (Ash-leaf Bush-pea)
- *Tradescantia roseolens* (Rosy Spiderwort)
- *Trillium discolor* (Pale Yellow Trillium)
- *Trillium lancifolium* (Lanceleaf Trillium)

Generated from Georgia DNR's NatureServe Biotics conservation database on October 12, 2011

[http://georgiawildlife.com/sites/default/files/uploads/wildlife/nongame/text/html/enty\\_eos...](http://georgiawildlife.com/sites/default/files/uploads/wildlife/nongame/text/html/enty_eos...) 10/27/2014

Rare, Threatened, and Endangered Species and Communities Known to Occur in Anderson County, SC  
June 11, 2014

Scientific Name	Common Name	USESA Designation	State Protection	Global Rank	State Rank
<b>Vertebrate Animals</b>					
<i>Etheostoma collis</i>	Carolina Darter			G3	SNR
<i>Etheostoma hopkinsi</i>	Christmas Darter			G4G5	S4
<i>Haliaeetus leucocephalus</i>	Bald Eagle		ST: Threatened	G5	S2
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker			G5	SNR
<i>Microtus pennsylvanicus</i>	Meadow Vole			G5	SNR
<i>Sylvilagus aquaticus</i>	Swamp Rabbit			G5	S2S3
<i>Tyto alba</i>	Barn-owl			G5	S4
<b>Invertebrate Animals</b>					
<i>Pyganodon cataracta</i>	Eastern Floater			G5	SNR
<b>Animal Assemblage</b>					
Waterbird Colony				GNR	SNR
<b>Vascular Plants</b>					
<i>Collinsonia verticillata</i>	Whorled Horse-balm			G3G4	S3
<i>Echinacea laevigata</i>	Smooth Coneflower	LE: Endangered		G2G3	S3
<i>Eupatorium fistulosum</i>	Hollow Joe-pye Weed			G5?	SNR
<i>Lygodium palmatum</i>	Climbing Fern			G4	S3
<i>Lysimachia fraseri</i>	Fraser Loosestrife			G3	S3
<i>Nestronia umbellula</i>	Nestronia			G4	S3
<i>Panax quinquefolius</i>	American Ginseng			G3G4	S4
<i>Platanthera lacera</i>	Green-fringe Orchis			G5	S2
<i>Trillium discolor</i>	Faded Trillium			G4	S4
<i>Trillium rugelii</i>	Southern Nodding Trillium			G3	S2
<i>Vallisneria americana</i>	Eel-grass			G5	S1
<i>Viola tripartita</i>	Three-parted Violet			G5	SNR
<i>Viola tripartita</i> var. <i>tripartita</i>	Three-parted Violet			G5T3	S3
<b>Communities</b>					
Cove forest				G5	S4
Mesic mixed hardwood forest				G5	S4
Oak - hickory forest				G5	S5

Hartwell Energy Facility

**Appendix A: List of Emergency Response  
Materials Contractor Equipment List**

**Equipment Available from Phillips Recoveries, Inc.**

Wet and dry vacuum pump truck, 1500 cfm	Wet and dry vacuum pump truck, 3750 cfm
CAT 320 Excavator	CAT 924G Loader
CAT 963C Dozer	CAT 315L Excavator
CAT 855D Crawler Loader	Vac Tanker
Roll-Off Truck	Skid Steer Loader 7753
CAT S175 Skid Steer	580K Case Backhoe
Large Boat	Landscape Tractor with front end loader
Portable Welder	Emergency Response Support Truck with supplies
Small Boat	Torches and Tanks
Tractor Trailer	Dump Trailer
Spill Trailer	Light Plant
Generators	Roll-off Containers
Air Compressor	Rock Crusher
Trailers 48' and 53'	4600 Woodhog Grinder



## ***PHILLIPS RECOVERIES, INC.***

508 Cherokee Road, Pelzer, SC 29669-9183

Tel: 864-947-6861

Fax: 864-947-4002

	<b>Per Hour/Hours</b>	<b>Daily</b>	<b>Weekly</b>	<b>Monthly</b>
<u>Technician:</u>	\$ 65.00			
Confined Space Personnel:	\$ 75.00			
<u>Equipment:</u>				
Wet & Dry Vacuum Pump Trucks w/5500cfm	\$185.00			
w/ Jetting Pressure Washer & Transfer Pump				
CAT 320 Excavator (addt. Pick-up & delivery fee)	\$180.00			
CAT 924G Loader	\$160.00			
CAT 963C Dozer	\$150.00			
D5 Cat Dozer	\$145.00			
CAT 315L Excavator (addt. Pick-up & delivery fee)	\$160.00			
Vac Tanker	\$135.00			
Dump Trailer	\$ 85.00			
Tractor Trailer	\$ 85.00			
Roll-Off Truck	\$ 85.00			
Skid Steer Loader 7753 w/ excavator & broom	\$75/\$85			
CAT S175 Skid Steer w/excavator & broom	\$75/\$85			
580K Case Backhoe	\$ 75.00			
Large Boat	\$ 60.00			
Landscape Tractor w/ front end loader	\$ 60.00			
Portable Welder	\$ 50.00			
Emergency Response Support Truck	\$ 45.00			
Small Boat	\$ 40.00			
Torches & Tanks	\$ 40.00			
Spill Trailer	\$ 35.00			
Light Plant	\$ 35.00			
Generators	\$ 30.00			
Air Compressor		\$175.00	\$775.00	\$3160
Frac Tanks		\$120.00	\$635.00	\$2500
Tanker	\$115.00	\$350.00		
Trailers - 48' & 53'				\$ 425
Roll-Off Containers (Dry Boxes & Compactors)				
Rock Crusher / Grinder				
<u>Spill Containment and Booms</u>				
100' Containment Booms				
6-95 Gallon Over pack Drums				
4-55 Gallon Metal Drums				
6-Bales Pads				
5-Rolls Diapers				
3-Split Rolls Diapers				
5-3x8 Socks				
3-5x6 Booms				
8-Bags Oil Dry				
2-Decon Pools				

**GSA NUMBER: C1882****GENERAL SERVICE AGREEMENT**

This General Services Agreement (this "GSA") dated this 18th day of June, 2012, sets forth the terms and conditions under which Oglethorpe Power Corporation (An Electric Membership Corporation) ("Oglethorpe"), may from time to time hire, use and pay for the services of PHILLIPS RECOVERIES, INC. (the "Contractor"). This GSA is hereby effective and the parties intend to incorporate one or more Task Releases (as hereinafter defined) as the need arises. The terms and conditions of this GSA will apply to each Task Release issued pursuant hereto. In the event of any conflict between this GSA and a Task Release, the terms and conditions of the Task Release shall control and prevail over the terms and conditions of this GSA.

**1 PARTIES TO THIS GSA**

1.1 The parties to this GSA include the following:

"Oglethorpe":

Oglethorpe Power Corporation  
 2100 E. Exchange Place  
 Tucker, Georgia 30084  
 Attention: Norris Minnis, GSA Contract Administration  
 Phone: 770-270-7846  
 Fax: 770-216-1898  
 Email: norris.minnis@opc.com

"Contractor":

PHILLIPS RECOVERIES, INC.  
 508 CHEROKEE ROAD  
 PELZER SC 29669

Attention: Mike Phillips

Phone: 800-947-6805  
 Fax: 864-947-4002  
 Email: Ashley@phillipsrecoveries.com

1.2 Each party represents to the other that (i) it has the power and authority to execute, deliver and perform this GSA and any Task Release and (ii) the person executing this GSA on behalf of it is an officer authorized to bind the party with respect to its obligations hereunder. Each party also agrees that any person executing any Task Release on behalf of it shall be authorized to bind the party with respect to its obligations thereunder.

## 2 **DEFINITIONS**

"Computer Tapes" has the meaning set forth in Paragraph 4.10.

"Confidential Information" means any information, document or thing concerning Oglethorpe or any Owner which (i) does or may constitute a trade secret under the Georgia Trade Secrets Act of 1990; (ii) is not generally known to the public; or (iii) is marked or labeled as "Confidential" by Oglethorpe.

Confidential Information may include, but is not limited to, present and future business plans, formulae, processes, models, designs, photographs, plans, drawings, schematics, sketches, samples, equipment, equipment performance reports, customer lists, pricing information, studies, reports, findings, inventions, ideas, specifications, parts lists, technical data, data bases, computer programs, except those computer programs proprietary to Contractor, flow charts, algorithms, and other business and technical information which are used for purposes of any Project.

"Contractor" has the meaning set forth in the Introduction paragraph.

"GPC" means Georgia Power Company.

"GSA" has the meaning set forth in the Introduction paragraph.

"Intended Third Party Beneficiaries" has the meaning set forth in Paragraph 23.1.

"MEAG" means the Municipal Electric Authority of Georgia, which is a "Participant" under the Plant Wansley CC Projects Operating Agreement, dated as of June 1, 2002, by and among GPC, Oglethorpe, as successor to Chattahoochee EMC, MEAG and Southern Power.

"Murray" means Murray I and II LLC, a Delaware limited liability company.

"Oglethorpe" has the meaning set forth in the Introduction paragraph.

"Oglethorpe Subsidiary" means any subsidiary of Oglethorpe.

"Owner" has the meaning set forth in Paragraph 3.1.

"Project" means the project or task set forth in any Task Release pursuant to which the Contractor is providing services.

"Southern Power" means Southern Power Company, which is a "Participant" under the Plant Wansley CC Projects Operating Agreement, dated as of June 1, 2002, by and among Georgia Power Company, Oglethorpe, as successor to Chattahoochee EMC, MEAG and Southern Power.

"Subcontractor" means any subcontractor, manufacturer, vendor, supplier, materialman or similar entity who contracts with the Contractor to perform any of the services under, or provide any of the supplies or materials required in connection with, this GSA or any Task Release.

"Task Release" means a contract between Oglethorpe and the Contractor issued pursuant to this GSA that describes the services to be provided by the Contractor, including, without limitation, the dates when and site where the services are to be performed and the approved hourly rates and maximum cost of services.

### **3 WORKING RELATIONSHIP**

3.1 Under each Task Release, the Contractor may perform services at one or more of the following: (i) a facility wholly-owned and operated by Oglethorpe; (ii) a facility owned, in whole or in part, by one or more Oglethorpe Subsidiaries, directly or indirectly, and operated by any such Oglethorpe Subsidiary or Oglethorpe; (iii) a facility owned by one or more entities other than Oglethorpe or any Oglethorpe Subsidiary, such as Smarr EMC, and operated by Oglethorpe; (iv) a facility owned by Oglethorpe and one or more co-owners, such as GPC, and operated by Oglethorpe, acting on behalf of itself and as agent for the other co-owners; and (v) a facility wholly-owned by Murray or Oglethorpe and operated by Murray or Oglethorpe. As used herein, the term "Owner" means any Oglethorpe Subsidiary that is an owner, directly or indirectly, of such facility to the extent that the Contractor performs services at any facility described in clause (ii) above, Smarr EMC or one or more other entities that are owners of such facility to the extent that the Contractor performs services at any facility described in clause (iii) above, Oglethorpe and all such co-owners of such facility to the extent the Contractor performs services at any facility described in clause (iv) above, and Oglethorpe and Murray to the extent the Contractor performs services at any facility described in clause (v) above.

3.2 The Contractor will function in cooperation with and subject to the review and approval of Oglethorpe. The Contractor will consult with Oglethorpe before finalizing recommendations or taking action at Project milestones or other key decision points.

3.3 The Contractor shall ensure that all personnel hired by the Contractor to perform services for Oglethorpe or any Owner pursuant to this GSA and any Task Release are well qualified and have sufficient training and experience to perform the services required in a competent and efficient manner.

3.4 The Contractor shall not assign to any Project any entity or person that (i) is a competitor with Oglethorpe; (ii) has interests adverse to Oglethorpe, such as, for example, an entity or person that Oglethorpe may have discharged or terminated and is not eligible for rehire or for future contracts; (iii) opposed Oglethorpe or any of its affiliated electric distribution systems in a judicial or arbitration proceeding; or (iv) is objectionable or unacceptable to Oglethorpe for any reason whatsoever (except for reasons prohibited by equal employment opportunity or other relevant laws).

3.5 Oglethorpe shall have the right, at its sole discretion, to demand and require the Contractor to remove any employee or Subcontractor working for the Contractor on the Project and to replace such employee or Subcontractor without cost or liability to Oglethorpe or any Owner.

3.6 For purposes of safety and otherwise, the Contractor must ensure that its employees, agents, representatives and Subcontractors are able to communicate fluently and clearly with Oglethorpe in the English language. The Contractor must station at least one supervisory-level person capable of communicating with Oglethorpe in English at each location or site where, and at all times when, any services are performed pursuant to this GSA and any Task Release. The Contractor must employ at least one supervisory-level person capable of communicating fluently and clearly, in any and all necessary languages, with the Contractor's employees, agents, representatives and Subcontractors. This supervisory-level person must be stationed at and assigned to the location(s) or site(s) where, and at all times when, any and all services are performed.

3.7 The Contractor shall maintain strict discipline among all personnel employed at any Project site, and no person under the influence of drugs or alcohol shall be allowed on the property of Oglethorpe or any Owner, nor shall any person employed on any Project site have in his or her possession or use any drugs, alcohol or firearms. Unprofessional conduct, including but not limited to horseplay, wrestling, and fighting, shall not be permitted or allowed.

3.8 The Contractor shall ensure that any and all electronic devices, computers, software, hardware, equipment and other similar and related items that are utilized by the Contractor, or any entity or person under the Contractor's supervision or control, do not harm, or allow harm, to Oglethorpe's or any Owner's computers, systems, networks, and technology. The Contractor shall take any and all measures possible to protect Oglethorpe's or any Owner's computers, systems, networks, and technology from viruses and other malicious codes.

#### **4 CONFIDENTIAL INFORMATION**

4.1 The Contractor may learn Confidential Information necessary for the Contractor to perform its services under this GSA and any Task Release. Confidential Information shall remain protected under this Section 4 when and as incorporated into information, data, notes or analyses.

4.2 Information shall be deemed not to be Confidential Information where: (i) it is a matter of public knowledge at the time of its disclosure pursuant to the terms of this Section 4 or is thereafter published in or otherwise ascertainable from any source available to the public without breach of this Section 4; (ii) it constitutes information which is obtained from a third party (who or which is not an affiliate of Oglethorpe or any Owner) other than by or as a result of unauthorized disclosure; or (iii) prior to the time of the disclosure it had been independently developed by the Contractor or its affiliates not utilizing improper means.

4.3 The Contractor agrees that any Confidential Information (unless it has ceased to be Confidential Information under the terms of this Section 4) which has been or will be disclosed directly or indirectly to it by or on behalf of Oglethorpe shall, indefinitely in the case of trade secrets, and for a period of five (5) years after termination of this GSA or any Task Release with respect to which the Confidential Information was provided, in the case of Confidential Information which is not a trade secret, (i) not be disclosed by it to any other person who is not an employee, officer, director, advisor, lender, representative, affiliate or Subcontractor of the Contractor; (ii) be disclosed only to the Contractor's employees, officers, directors, advisors, lenders, representatives, affiliates and Subcontractors who have a need to know and agree to maintain the confidentiality of such Confidential Information in accordance with the terms hereof, and Oglethorpe from time to time may require the Contractor to cause

such employees, officers, directors, advisors, lenders, representatives, affiliates and Subcontractors to execute a confidentiality acknowledgement provided by Oglethorpe; (iii) be maintained by it in confidence in a manner so as to ensure that it will not be viewed or taken by any unauthorized person or further disclosed in a manner not authorized hereby; and (iv) not be used except for the limited purposes expressly given herein.

4.4 Notwithstanding the preceding, Confidential Information may be disclosed to any governmental, judicial or regulatory authority requiring such Confidential Information, provided that: (i) such Confidential Information is submitted under applicable provisions, if any, for confidential treatment by such governmental, judicial or regulatory authority; and (ii) prior to such disclosure, Oglethorpe is given notice of the disclosure requirement so that it may take whatever action it deems appropriate, including intervention in any proceeding and the seeking of an injunction to prohibit such disclosure; and (iii) the Contractor shall endeavor to protect the confidentiality of any Confidential Information to the extent reasonable under the circumstances and use its good faith efforts to prevent the further disclosure of any Confidential Information provided to any government judicial or regulatory authority.

4.5 No provision of Section 4 shall be deemed waived and no breach shall be deemed excused unless such waiver or consent shall be in writing and signed by a duly authorized representative of Oglethorpe expressly waiving such provision or excusing such breach. No such consent to, or waiver of a breach hereof, whether express or implied, shall constitute a consent to, waiver of, or excuse for any subsequent or different breach.

4.6 Except as expressly provided herein, the rights of Oglethorpe or any Owner hereunder are in addition to and not in lieu of Oglethorpe's or any Owner's rights under Georgia law, including but not limited to the Georgia Trade Secrets Act of 1990. Further, nothing contained herein shall be construed as a waiver on the part of Oglethorpe or any Owner of any privilege or objection of any kind to the disclosure or use of Confidential Information for any purpose other than in connection with this Project.

4.7 In the event of a breach of any part of this Section 4, Oglethorpe or any Owner will not have an adequate remedy at law and accordingly shall, in addition to any other available legal or equitable remedies, be entitled to an injunction against such breach without any requirement to post a bond as a condition of such relief.

4.8 The Contractor shall be responsible for any breach hereof by its employees, officers, directors, advisors, lenders, representatives, affiliates or Subcontractors and shall hold harmless and indemnify Oglethorpe and any Owner from any damages caused by any unauthorized disclosure by any such person or entity.

4.9 In the event any provision of this Section 4 shall be found to be illegal or unenforceable, then, notwithstanding such illegality or unenforceability, this Section 4 shall continue in full force and effect and there shall be substituted for such illegal or unenforceable provision a like but legal and enforceable provision which most clearly carries into effect the intention of the original provision. In the event a like but legal and enforceable provision cannot be substituted, the illegal or unenforceable provision shall be deemed to be deleted and the remaining provisions of this Section 4 shall continue in full force and effect.

4.10 Upon the request of Oglethorpe, the Contractor shall return all written Confidential Information provided by Oglethorpe and shall not retain any copies of such written Confidential Information. In the event of such request, all documents, analyses, compilations, studies or other materials prepared by the Contractor or its Subcontractors that contain or reflect Confidential Information (other than computer archival and backup tapes or archival and backup files; collectively, "Computer Tapes") shall be destroyed and no copy thereof shall be retained (such destruction to be confirmed in writing by a duly authorized officer of the Contractor). Computer Tapes shall be kept confidential in accordance with the terms hereof.

4.11 The terms and conditions of this GSA and any Task Release are confidential, and the Contractor may not disclose any of the terms and conditions hereof or thereof to any third party except according to the terms of Paragraph 4.3.

## **5 COMPENSATION AND BILLINGS**

5.1 The Contractor's compensation shall be negotiated, agreed upon and documented at the time individual Task Releases are entered into by Oglethorpe and the Contractor.

5.2 Oglethorpe shall pay all correct and properly submitted invoices within thirty (30) days from their date of receipt at Oglethorpe's offices. Oglethorpe agrees to pay any undisputed portion of any disputed invoice.

5.3 As a condition precedent to final payment, whether upon completion of all services or upon termination of this GSA or any Task Release, the Contractor shall (1) perform and engage in a formal checkout process with Oglethorpe for purposes of completing all forms, submitting documentation, and providing Oglethorpe any and all other information, items or things required by this GSA or any Task Release, and (2) return all of Oglethorpe's or any Owner's property, including, but not limited to, picture identification cards and access cards, to Oglethorpe.

## **6 TERMINATION BY OGLETHORPE**

6.1 Oglethorpe reserves the right to terminate this GSA or any Task Release at any time upon giving notice in writing to the Contractor. In the event of termination, Oglethorpe shall pay to the Contractor all compensation earned and, where applicable, reimbursable expenses incurred, up to the effective date of termination.

6.2 Within three (3) business days of such termination, and pursuant to Paragraph 5.3, above, the Contractor shall produce, submit and deliver to Oglethorpe all documents, material, data and information gathered or developed for the Project, including all of the items identified in Paragraphs 9.1 and 9.2 below. Under no circumstances shall the Contractor assert any lien or other claim over or relating to any such documents, material, data and information.

6.3 Oglethorpe may, without cause, order the Contractor in writing to suspend, delay or interrupt the work or services covered by the GSA or any Task Release, in whole or in part, for such period of time as Oglethorpe may determine.

## **7 INDEPENDENT CONTRACTOR**

7.1 The Contractor and its employees shall perform as an independent contractor and not as employees of Oglethorpe or any Owner. The Contractor retains sole and exclusive liability for all contributions, taxes or payments required to be made on account of the Contractor's employees under federal or state income tax laws, unemployment compensation acts, social security acts, and all other legislation requiring employer contributions or withholdings.

## **8 RESPONSIBILITY FOR SERVICES**

8.1 In the performance of this GSA and any Task Release, the Contractor shall consistently render its best efforts and shall exercise that degree of skill and care according to the highest industry standards for the Contractor's industry.

8.2 If services performed by the Contractor fail to meet the standards set forth in this Section 8, or any other applicable standards, Oglethorpe may elect to have the Contractor re-perform or cause to be re-performed, at no cost to Oglethorpe or any Owner, any of the services which fail to meet said standards where: (i) such failure appears during the performance of the Contractor's services or within one (1) year from the date of completion of the Contractor's services, and (ii) Oglethorpe notifies the Contractor of any such failure within sixty (60) days of the time that the failure becomes apparent. This Paragraph 8.2 shall in no way be interpreted to limit the right of Oglethorpe or any Owner to pursue and obtain any and all other available remedies against the Contractor, whether at law or in equity.

8.3 Oglethorpe acknowledges that the Contractor shall be entitled to rely on the accuracy and currency of information supplied by Oglethorpe or by any of Oglethorpe's other contractors or consultants, or available from generally accepted reputable sources.

## **9 OWNERSHIP OF WORK PRODUCT**

9.1 The reports, recommendations, specifications, drawings, technical data, sketches, computer software, and all other information developed by equipment vendors or other third parties in connection with this GSA and any Task Release shall be the property of Oglethorpe or any Owner, as the case may be. This provision shall not act to transfer rights of owners of standard software or specification packages for which copyright is retained by the developer.

9.2 All original technical data, evaluations, reports and other work product of the Contractor shall be delivered to Oglethorpe upon the completion or termination of services under each Task Release, pursuant to Paragraph 6.2, above. The Contractor may retain one (1) copy of all documents produced by the Contractor for its permanent file.

## **10 ACCOUNTING AND RECORDS**

10.1 Where the Contractor's compensation includes reimbursement for any expenses, the Contractor will maintain a system of accounting and record keeping which is compatible with Oglethorpe's established system of accounts. Further, the Contractor will allow inspection of necessary supporting receipts and documentation for audit purposes for a period of five (5) years after completion of services under this GSA and any Task Release. Oglethorpe's audit rights shall not extend to the characterization of any lump sums, unit rates or fixed percentage, other than to verify such costs are properly chargeable to Oglethorpe.

## **11 COMPLIANCE WITH LAWS**

11.1 The Contractor shall comply with all federal, state and local laws, regulations, ordinances, and other legal mandates applicable to the performance of its services under this GSA and any Task Release, including, but not limited to, laws governing health, safety, security, the protection or preservation of the environment, and occupational licensing.

11.2 The Contractor shall comply, and shall cause all Subcontractors to comply, with all security requirements which may be provided to the Contractor by Oglethorpe as such requirements may be amended by Oglethorpe from time to time, including without limitation background checks of any employees of the Contractor or its Subcontractors, requirements regarding proper identification of employees of the Contractor and its Subcontractors, limitations on access to portions of Oglethorpe's or its affiliates' premises or any Owner's premises, and limitations on the time when employees of the Contractor or its Subcontractors may be on such premises.

## **12 DEBARMENT & SUSPENSION AND KICKBACKS UNDER FEDERAL LAW**

12.1 Federal regulations prohibit Oglethorpe from knowingly purchasing goods or services from persons who are debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participating in transactions with the Federal Government or transactions with participants in programs funded in whole or in part by Federal grants, loans or loan guarantees. To comply with the obligations under these regulations, Oglethorpe has solicited from the Contractor a signed certification in the form shown on Exhibit A, which is affixed to and by this reference made a part of this GSA. By signing this GSA, the Contractor represents and promises that the Contractor (i) has read and understands Exhibit A, both the certification and the instructions provided therein, (ii) will sign and deliver additional counterparts of such certification whenever requested by Oglethorpe, and (iii) will perform all of the requirements of a "Lower Tier Participant" as set forth in such certification and instructions as performance covenants included and made a part of all Task Releases.

12.2 The Contractor and all Subcontractors and all others providing any of the services on any Project for Oglethorpe shall not, by force, intimidation, or threat of procuring dismissal from employment, or by any other manner whatsoever, induce any person employed in the Project to give up any part of the compensation to which such person is entitled under his contract. The Contractor and all Subcontractors shall comply with Title 18 U.S. Code, Chapter 41, section 874, which prohibits kick-backs from public works employees under penalties of law.

## **13 LOBBYING**

13.1 Federal regulations (i) prohibit Oglethorpe from using Federal appropriated funds to pay any person for influencing or attempting to influence certain Federal officers or agents in connection with the making of a Federal loan and (ii) require Oglethorpe to include the lobbying certification set forth in Appendix A to 7 C.F.R. Part 3018 in all of its contracts under the Federal loan exceeding \$100,000. To comply with its obligations under these regulations, Oglethorpe has solicited from the Contractor a signed certification in the form shown on

Exhibit B, which is affixed to and by this reference made a part of this GSA. By signing this GSA, the Contractor represents and agrees that the Contractor (i) has read and understood Exhibit B; (ii) will sign and deliver additional counterparts of such certification whenever requested by Oglethorpe; and (iii) will perform all of the requirements set forth in the certification.

#### **14 BUY-AMERICAN**

14.1 The Contractor shall use or furnish or cause to be used or furnished only unmanufactured articles, materials and supplies which have been mined or produced in the United States or any eligible country, and only manufactured articles, materials and supplies which have been manufactured in the United States or any eligible country substantially all from articles, materials and supplies mined, produced or manufactured, as the case may be, in the United States or any eligible country, except to the extent that compliance with the second paragraph of the Rural Electrification Act of 1938, being Title IV of the Work Relief and Public Works Appropriation Act of 1938 (Public Resolution No. 122, 75th Congress, approved June 21, 1938) has been waived by the Administrator of the Rural Utilities Service ("RUS"). For purposes of this Section, an "eligible country" is any country that applies with respect to the United States an agreement ensuring reciprocal access for United States products and services and United States suppliers to the markets of that country, as determined by the United States Trade Representative. The Contractor shall provide to Oglethorpe such information, documents, and certificates as may be requested by Oglethorpe or the Administrator of the RUS from time to time with respect to any articles, materials or supplies used in connection with any Project.

#### **15 EQUAL EMPLOYMENT OPPORTUNITY**

During the performance of this GSA and any Task Releases:

15.1 The Contractor will not discriminate against any worker, employee or applicant for employment because of race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap. The Contractor will take affirmative action to ensure that applicants are employed, and that workers are treated during employment, without regard to their race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap. Such action shall include, but not be limited to, the following: employment; upgrading; demotion; transfer; recruitment; recruitment advertising; layoff; termination; rates of pay or other forms of compensation; and, selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by Oglethorpe's representative hereinafter named, setting forth the provisions of this nondiscrimination clause.

15.2 The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap.

15.3 The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by Oglethorpe's representative, advising the labor union or workers' representative of the Contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

Exhibit B, which is affixed to and by this reference made a part of this GSA. By signing this GSA, the Contractor represents and agrees that the Contractor (i) has read and understood Exhibit B; (ii) will sign and deliver additional counterparts of such certification whenever requested by Oglethorpe; and (iii) will perform all of the requirements set forth in the certification.

#### **14 BUY-AMERICAN**

14.1 The Contractor shall use or furnish or cause to be used or furnished only unmanufactured articles, materials and supplies which have been mined or produced in the United States or any eligible country, and only manufactured articles, materials and supplies which have been manufactured in the United States or any eligible country substantially all from articles, materials and supplies mined, produced or manufactured, as the case may be, in the United States or any eligible country, except to the extent that compliance with the second paragraph of the Rural Electrification Act of 1938, being Title IV of the Work Relief and Public Works Appropriation Act of 1938 (Public Resolution No. 122, 75th Congress, approved June 21, 1938) has been waived by the Administrator of the Rural Utilities Service ("RUS"). For purposes of this Section, an "eligible country" is any country that applies with respect to the United States an agreement ensuring reciprocal access for United States products and services and United States suppliers to the markets of that country, as determined by the United States Trade Representative. The Contractor shall provide to Oglethorpe such information, documents, and certificates as may be requested by Oglethorpe or the Administrator of the RUS from time to time with respect to any articles, materials or supplies used in connection with any Project.

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15.2 The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap.

15.3 The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by Oglethorpe's representative, advising the labor union or workers' representative of the Contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

15.4 The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

15.5 The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders pursuant thereto, and will permit access to his books, records, and accounts by Oglethorpe's representative and governmental regulatory authorities such as the U.S. Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

15.6 In the event of the Contractor's noncompliance with the nondiscrimination clauses of this GSA or with any of such rules, regulations, or orders of the Secretary of Labor, this GSA or any Task Release may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

15.7 The Contractor will include the provisions of Paragraphs 15.1 through 15.6 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

## **16 CONTINGENCY FEES**

16.1 The Contractor represents that it has not employed and shall not employ any person other than its own principals and employees to solicit this GSA or any Task Release or any contract with Oglethorpe, and that it has not and shall not pay any person other than its own principals and employees any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this GSA, any Task Release or any other contract with Oglethorpe.

## **17 SUBCONTRACTORS**

17.1 The Contractor shall manage all work and services performed under this GSA and any Task Release. Upon Oglethorpe's written consent, the Contractor may subcontract any portion of the services to be provided under any Task Release. In such event, the right and obligations of the Contractor, Oglethorpe, and any Owner will not be diminished.

17.2 All of the Contractor's Subcontractors shall be directly responsible to the Contractor and shall be under the Contractor's direct supervision. The Contractor shall be as fully responsible to Oglethorpe and any Owner for the acts and omissions of its Subcontractors and of persons either directly or indirectly employed by them in the performance of services under this GSA and any Task Release as the Contractor is for the acts and omissions of persons it directly employs. Nothing contained in this GSA or in any Task Release shall create any contractual relationship between any Subcontractor and Oglethorpe or any Owner.

**GSA NUMBER: C1882****GENERAL SERVICE AGREEMENT**

This General Services Agreement (this "GSA") dated this 18th day of June, 2012, sets forth the terms and conditions under which Oglethorpe Power Corporation (An Electric Membership Corporation) ("Oglethorpe"), may from time to time hire, use and pay for the services of PHILLIPS RECOVERIES, INC. (the "Contractor"). This GSA is hereby effective and the parties intend to incorporate one or more Task Releases (as hereinafter defined) as the need arises. The terms and conditions of this GSA will apply to each Task Release issued pursuant hereto. In the event of any conflict between this GSA and a Task Release, the terms and conditions of the Task Release shall control and prevail over the terms and conditions of this GSA.

**1 PARTIES TO THIS GSA****1.1 The parties to this GSA include the following:**

"Oglethorpe":

Oglethorpe Power Corporation  
2100 E. Exchange Place  
Tucker, Georgia 30084  
Attention: Norris Minnis, GSA Contract Administration  
Phone: 770-270-7846  
Fax: 770-216-1898  
Email: norris.minnis@opc.com

"Contractor":

PHILLIPS RECOVERIES, INC.  
508 CHEROKEE ROAD  
PELZER SC 29669

Attention: Mike Phillips

Phone: 800-947-6805  
Fax: 864-947-4002  
Email: Ashley@phillipsrecoveries.com

1.2 Each party represents to the other that (i) it has the power and authority to execute, deliver and perform this GSA and any Task Release and (ii) the person executing this GSA on behalf of it is an officer authorized to bind the party with respect to its obligations hereunder. Each party also agrees that any person executing any Task Release on behalf of it shall be authorized to bind the party with respect to its obligations thereunder.

## 2 **DEFINITIONS**

"Computer Tapes" has the meaning set forth in Paragraph 4.10.

"Confidential Information" means any information, document or thing concerning Oglethorpe or any Owner which (i) does or may constitute a trade secret under the Georgia Trade Secrets Act of 1990; (ii) is not generally known to the public; or (iii) is marked or labeled as "Confidential" by Oglethorpe.

Confidential Information may include, but is not limited to, present and future business plans, formulae, processes, models, designs, photographs, plans, drawings, schematics, sketches, samples, equipment, equipment performance reports, customer lists, pricing information, studies, reports, findings, inventions, ideas, specifications, parts lists, technical data, data bases, computer programs, except those computer programs proprietary to Contractor, flow charts, algorithms, and other business and technical information which are used for purposes of any Project.

"Contractor" has the meaning set forth in the Introduction paragraph.

"GPC" means Georgia Power Company.

"GSA" has the meaning set forth in the Introduction paragraph.

"Intended Third Party Beneficiaries" has the meaning set forth in Paragraph 23.1.

"MEAG" means the Municipal Electric Authority of Georgia, which is a "Participant" under the Plant Wansley CC Projects Operating Agreement, dated as of June 1, 2002, by and among GPC, Oglethorpe, as successor to Chattahoochee EMC, MEAG and Southern Power.

"Murray" means Murray I and II LLC, a Delaware limited liability company.

"Oglethorpe" has the meaning set forth in the Introduction paragraph.

"Oglethorpe Subsidiary" means any subsidiary of Oglethorpe.

"Owner" has the meaning set forth in Paragraph 3.1.

"Project" means the project or task set forth in any Task Release pursuant to which the Contractor is providing services.

"Southern Power" means Southern Power Company, which is a "Participant" under the Plant Wansley CC Projects Operating Agreement, dated as of June 1, 2002, by and among Georgia Power Company, Oglethorpe, as successor to Chattahoochee EMC, MEAG and Southern Power.

"Subcontractor" means any subcontractor, manufacturer, vendor, supplier, materialman or similar entity who contracts with the Contractor to perform any of the services under, or provide any of the supplies or materials required in connection with, this GSA or any Task Release.

"Task Release" means a contract between Oglethorpe and the Contractor issued pursuant to this GSA that describes the services to be provided by the Contractor, including, without limitation, the dates when and site where the services are to be performed and the approved hourly rates and maximum cost of services.

### **3 WORKING RELATIONSHIP**

3.1 Under each Task Release, the Contractor may perform services at one or more of the following: (i) a facility wholly-owned and operated by Oglethorpe; (ii) a facility owned, in whole or in part, by one or more Oglethorpe Subsidiaries, directly or indirectly, and operated by any such Oglethorpe Subsidiary or Oglethorpe; (iii) a facility owned by one or more entities other than Oglethorpe or any Oglethorpe Subsidiary, such as Smarr EMC, and operated by Oglethorpe; (iv) a facility owned by Oglethorpe and one or more co-owners, such as GPC, and operated by Oglethorpe, acting on behalf of itself and as agent for the other co-owners; and (v) a facility wholly-owned by Murray or Oglethorpe and operated by Murray or Oglethorpe. As used herein, the term "Owner" means any Oglethorpe Subsidiary that is an owner, directly or indirectly, of such facility to the extent that the Contractor performs services at any facility described in clause (ii) above, Smarr EMC or one or more other entities that are owners of such facility to the extent that the Contractor performs services at any facility described in clause (iii) above, Oglethorpe and all such co-owners of such facility to the extent the Contractor performs services at any facility described in clause (iv) above, and Oglethorpe and Murray to the extent the Contractor performs services at any facility described in clause (v) above.

3.2 The Contractor will function in cooperation with and subject to the review and approval of Oglethorpe. The Contractor will consult with Oglethorpe before finalizing recommendations or taking action at Project milestones or other key decision points.

3.3 The Contractor shall ensure that all personnel hired by the Contractor to perform services for Oglethorpe or any Owner pursuant to this GSA and any Task Release are well qualified and have sufficient training and experience to perform the services required in a competent and efficient manner.

3.4 The Contractor shall not assign to any Project any entity or person that (i) is a competitor with Oglethorpe; (ii) has interests adverse to Oglethorpe, such as, for example, an entity or person that Oglethorpe may have discharged or terminated and is not eligible for rehire or for future contracts; (iii) opposed Oglethorpe or any of its affiliated electric distribution systems in a judicial or arbitration proceeding; or (iv) is objectionable or unacceptable to Oglethorpe for any reason whatsoever (except for reasons prohibited by equal employment opportunity or other relevant laws).

3.5 Oglethorpe shall have the right, at its sole discretion, to demand and require the Contractor to remove any employee or Subcontractor working for the Contractor on the Project and to replace such employee or Subcontractor without cost or liability to Oglethorpe or any Owner.

3.6 For purposes of safety and otherwise, the Contractor must ensure that its employees, agents, representatives and Subcontractors are able to communicate fluently and clearly with Oglethorpe in the English language. The Contractor must station at least one supervisory-level person capable of communicating with Oglethorpe in English at each location or site where, and at all times when, any services are performed pursuant to this GSA and any Task Release. The Contractor must employ at least one supervisory-level person capable of communicating fluently and clearly, in any and all necessary languages, with the Contractor's employees, agents, representatives and Subcontractors. This supervisory-level person must be stationed at and assigned to the location(s) or site(s) where, and at all times when, any and all services are performed.

3.7 The Contractor shall maintain strict discipline among all personnel employed at any Project site, and no person under the influence of drugs or alcohol shall be allowed on the property of Oglethorpe or any Owner, nor shall any person employed on any Project site have in his or her possession or use any drugs, alcohol or firearms. Unprofessional conduct, including but not limited to horseplay, wrestling, and fighting, shall not be permitted or allowed.

3.8 The Contractor shall ensure that any and all electronic devices, computers, software, hardware, equipment and other similar and related items that are utilized by the Contractor, or any entity or person under the Contractor's supervision or control, do not harm, or allow harm, to Oglethorpe's or any Owner's computers, systems, networks, and technology. The Contractor shall take any and all measures possible to protect Oglethorpe's or any Owner's computers, systems, networks, and technology from viruses and other malicious codes.

#### **4 CONFIDENTIAL INFORMATION**

4.1 The Contractor may learn Confidential Information necessary for the Contractor to perform its services under this GSA and any Task Release. Confidential Information shall remain protected under this Section 4 when and as incorporated into information, data, notes or analyses.

4.2 Information shall be deemed not to be Confidential Information where: (i) it is a matter of public knowledge at the time of its disclosure pursuant to the terms of this Section 4 or is thereafter published in or otherwise ascertainable from any source available to the public without breach of this Section 4; (ii) it constitutes information which is obtained from a third party (who or which is not an affiliate of Oglethorpe or any Owner) other than by or as a result of unauthorized disclosure; or (iii) prior to the time of the disclosure it had been independently developed by the Contractor or its affiliates not utilizing improper means.

4.3 The Contractor agrees that any Confidential Information (unless it has ceased to be Confidential Information under the terms of this Section 4) which has been or will be disclosed directly or indirectly to it by or on behalf of Oglethorpe shall, indefinitely in the case of trade secrets, and for a period of five (5) years after termination of this GSA or any Task Release with respect to which the Confidential Information was provided, in the case of Confidential Information which is not a trade secret, (i) not be disclosed by it to any other person who is not an employee, officer, director, advisor, lender, representative, affiliate or Subcontractor of the Contractor; (ii) be disclosed only to the Contractor's employees, officers, directors, advisors, lenders, representatives, affiliates and Subcontractors who have a need to know and agree to maintain the confidentiality of such Confidential Information in accordance with the terms hereof, and Oglethorpe from time to time may require the Contractor to cause

such employees, officers, directors, advisors, lenders, representatives, affiliates and Subcontractors to execute a confidentiality acknowledgement provided by Oglethorpe; (iii) be maintained by it in confidence in a manner so as to ensure that it will not be viewed or taken by any unauthorized person or further disclosed in a manner not authorized hereby; and (iv) not be used except for the limited purposes expressly given herein.

4.4 Notwithstanding the preceding, Confidential Information may be disclosed to any governmental, judicial or regulatory authority requiring such Confidential Information, provided that: (i) such Confidential Information is submitted under applicable provisions, if any, for confidential treatment by such governmental, judicial or regulatory authority; and (ii) prior to such disclosure, Oglethorpe is given notice of the disclosure requirement so that it may take whatever action it deems appropriate, including intervention in any proceeding and the seeking of an injunction to prohibit such disclosure; and (iii) the Contractor shall endeavor to protect the confidentiality of any Confidential Information to the extent reasonable under the circumstances and use its good faith efforts to prevent the further disclosure of any Confidential Information provided to any government judicial or regulatory authority.

4.5 No provision of Section 4 shall be deemed waived and no breach shall be deemed excused unless such waiver or consent shall be in writing and signed by a duly authorized representative of Oglethorpe expressly waiving such provision or excusing such breach. No such consent to, or waiver of a breach hereof, whether express or implied, shall constitute a consent to, waiver of, or excuse for any subsequent or different breach.

4.6 Except as expressly provided herein, the rights of Oglethorpe or any Owner hereunder are in addition to and not in lieu of Oglethorpe's or any Owner's rights under Georgia law, including but not limited to the Georgia Trade Secrets Act of 1990. Further, nothing contained herein shall be construed as a waiver on the part of Oglethorpe or any Owner of any privilege or objection of any kind to the disclosure or use of Confidential Information for any purpose other than in connection with this Project.

4.7 In the event of a breach of any part of this Section 4, Oglethorpe or any Owner will not have an adequate remedy at law and accordingly shall, in addition to any other available legal or equitable remedies, be entitled to an injunction against such breach without any requirement to post a bond as a condition of such relief.

4.8 The Contractor shall be responsible for any breach hereof by its employees, officers, directors, advisors, lenders, representatives, affiliates or Subcontractors and shall hold harmless and indemnify Oglethorpe and any Owner from any damages caused by any unauthorized disclosure by any such person or entity.

4.9 In the event any provision of this Section 4 shall be found to be illegal or unenforceable, then, notwithstanding such illegality or unenforceability, this Section 4 shall continue in full force and effect and there shall be substituted for such illegal or unenforceable provision a like but legal and enforceable provision which most clearly carries into effect the intention of the original provision. In the event a like but legal and enforceable provision cannot be substituted, the illegal or unenforceable provision shall be deemed to be deleted and the remaining provisions of this Section 4 shall continue in full force and effect.

4.10 Upon the request of Oglethorpe, the Contractor shall return all written Confidential Information provided by Oglethorpe and shall not retain any copies of such written Confidential Information. In the event of such request, all documents, analyses, compilations, studies or other materials prepared by the Contractor or its Subcontractors that contain or reflect Confidential Information (other than computer archival and backup tapes or archival and backup files; collectively, "Computer Tapes") shall be destroyed and no copy thereof shall be retained (such destruction to be confirmed in writing by a duly authorized officer of the Contractor). Computer Tapes shall be kept confidential in accordance with the terms hereof.

4.11 The terms and conditions of this GSA and any Task Release are confidential, and the Contractor may not disclose any of the terms and conditions hereof or thereof to any third party except according to the terms of Paragraph 4.3.

## **5 COMPENSATION AND BILLINGS**

5.1 The Contractor's compensation shall be negotiated, agreed upon and documented at the time individual Task Releases are entered into by Oglethorpe and the Contractor.

5.2 Oglethorpe shall pay all correct and properly submitted invoices within thirty (30) days from their date of receipt at Oglethorpe's offices. Oglethorpe agrees to pay any undisputed portion of any disputed invoice.

5.3 As a condition precedent to final payment, whether upon completion of all services or upon termination of this GSA or any Task Release, the Contractor shall (1) perform and engage in a formal checkout process with Oglethorpe for purposes of completing all forms, submitting documentation, and providing Oglethorpe any and all other information, items or things required by this GSA or any Task Release, and (2) return all of Oglethorpe's or any Owner's property, including, but not limited to, picture identification cards and access cards, to Oglethorpe.

## **6 TERMINATION BY OGLETHORPE**

6.1 Oglethorpe reserves the right to terminate this GSA or any Task Release at any time upon giving notice in writing to the Contractor. In the event of termination, Oglethorpe shall pay to the Contractor all compensation earned and, where applicable, reimbursable expenses incurred, up to the effective date of termination.

6.2 Within three (3) business days of such termination, and pursuant to Paragraph 5.3, above, the Contractor shall produce, submit and deliver to Oglethorpe all documents, material, data and information gathered or developed for the Project, including all of the items identified in Paragraphs 9.1 and 9.2 below. Under no circumstances shall the Contractor assert any lien or other claim over or relating to any such documents, material, data and information.

6.3 Oglethorpe may, without cause, order the Contractor in writing to suspend, delay or interrupt the work or services covered by the GSA or any Task Release, in whole or in part, for such period of time as Oglethorpe may determine.

## **7 INDEPENDENT CONTRACTOR**

7.1 The Contractor and its employees shall perform as an independent contractor and not as employees of Oglethorpe or any Owner. The Contractor retains sole and exclusive liability for all contributions, taxes or payments required to be made on account of the Contractor's employees under federal or state income tax laws, unemployment compensation acts, social security acts, and all other legislation requiring employer contributions or withholdings.

## **8 RESPONSIBILITY FOR SERVICES**

8.1 In the performance of this GSA and any Task Release, the Contractor shall consistently render its best efforts and shall exercise that degree of skill and care according to the highest industry standards for the Contractor's industry.

8.2 If services performed by the Contractor fail to meet the standards set forth in this Section 8, or any other applicable standards, Oglethorpe may elect to have the Contractor re-perform or cause to be re-performed, at no cost to Oglethorpe or any Owner, any of the services which fail to meet said standards where: (i) such failure appears during the performance of the Contractor's services or within one (1) year from the date of completion of the Contractor's services, and (ii) Oglethorpe notifies the Contractor of any such failure within sixty (60) days of the time that the failure becomes apparent. This Paragraph 8.2 shall in no way be interpreted to limit the right of Oglethorpe or any Owner to pursue and obtain any and all other available remedies against the Contractor, whether at law or in equity.

8.3 Oglethorpe acknowledges that the Contractor shall be entitled to rely on the accuracy and currency of information supplied by Oglethorpe or by any of Oglethorpe's other contractors or consultants, or available from generally accepted reputable sources.

## **9 OWNERSHIP OF WORK PRODUCT**

9.1 The reports, recommendations, specifications, drawings, technical data, sketches, computer software, and all other information developed by equipment vendors or other third parties in connection with this GSA and any Task Release shall be the property of Oglethorpe or any Owner, as the case may be. This provision shall not act to transfer rights of owners of standard software or specification packages for which copyright is retained by the developer.

9.2 All original technical data, evaluations, reports and other work product of the Contractor shall be delivered to Oglethorpe upon the completion or termination of services under each Task Release, pursuant to Paragraph 6.2, above. The Contractor may retain one (1) copy of all documents produced by the Contractor for its permanent file.

## **10 ACCOUNTING AND RECORDS**

10.1 Where the Contractor's compensation includes reimbursement for any expenses, the Contractor will maintain a system of accounting and record keeping which is compatible with Oglethorpe's established system of accounts. Further, the Contractor will allow inspection of necessary supporting receipts and documentation for audit purposes for a period of five (5) years after completion of services under this GSA and any Task Release. Oglethorpe's audit rights shall not extend to the characterization of any lump sums, unit rates or fixed percentage, other than to verify such costs are properly chargeable to Oglethorpe.

## **11 COMPLIANCE WITH LAWS**

11.1 The Contractor shall comply with all federal, state and local laws, regulations, ordinances, and other legal mandates applicable to the performance of its services under this GSA and any Task Release, including, but not limited to, laws governing health, safety, security, the protection or preservation of the environment, and occupational licensing.

11.2 The Contractor shall comply, and shall cause all Subcontractors to comply, with all security requirements which may be provided to the Contractor by Oglethorpe as such requirements may be amended by Oglethorpe from time to time, including without limitation background checks of any employees of the Contractor or its Subcontractors, requirements regarding proper identification of employees of the Contractor and its Subcontractors, limitations on access to portions of Oglethorpe's or its affiliates' premises or any Owner's premises, and limitations on the time when employees of the Contractor or its Subcontractors may be on such premises.

## **12 DEBARMENT & SUSPENSION AND KICKBACKS UNDER FEDERAL LAW**

12.1 Federal regulations prohibit Oglethorpe from knowingly purchasing goods or services from persons who are debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participating in transactions with the Federal Government or transactions with participants in programs funded in whole or in part by Federal grants, loans or loan guarantees. To comply with the obligations under these regulations, Oglethorpe has solicited from the Contractor a signed certification in the form shown on Exhibit A, which is affixed to and by this reference made a part of this GSA. By signing this GSA, the Contractor represents and promises that the Contractor (i) has read and understands Exhibit A, both the certification and the instructions provided therein, (ii) will sign and deliver additional counterparts of such certification whenever requested by Oglethorpe, and (iii) will perform all of the requirements of a "Lower Tier Participant" as set forth in such certification and instructions as performance covenants included and made a part of all Task Releases.

12.2 The Contractor and all Subcontractors and all others providing any of the services on any Project for Oglethorpe shall not, by force, intimidation, or threat of procuring dismissal from employment, or by any other manner whatsoever, induce any person employed in the Project to give up any part of the compensation to which such person is entitled under his contract. The Contractor and all Subcontractors shall comply with Title 18 U.S. Code, Chapter 41, section 874, which prohibits kick-backs from public works employees under penalties of law.

## **13 LOBBYING**

13.1 Federal regulations (i) prohibit Oglethorpe from using Federal appropriated funds to pay any person for influencing or attempting to influence certain Federal officers or agents in connection with the making of a Federal loan and (ii) require Oglethorpe to include the lobbying certification set forth in Appendix A to 7 C.F.R. Part 3018 in all of its contracts under the Federal loan exceeding \$100,000. To comply with its obligations under these regulations, Oglethorpe has solicited from the Contractor a signed certification in the form shown on

Exhibit B, which is affixed to and by this reference made a part of this GSA. By signing this GSA, the Contractor represents and agrees that the Contractor (i) has read and understood Exhibit B; (ii) will sign and deliver additional counterparts of such certification whenever requested by Oglethorpe; and (iii) will perform all of the requirements set forth in the certification.

#### **14 BUY-AMERICAN**

14.1 The Contractor shall use or furnish or cause to be used or furnished only unmanufactured articles, materials and supplies which have been mined or produced in the United States or any eligible country, and only manufactured articles, materials and supplies which have been manufactured in the United States or any eligible country substantially all from articles, materials and supplies mined, produced or manufactured, as the case may be, in the United States or any eligible country, except to the extent that compliance with the second paragraph of the Rural Electrification Act of 1938, being Title IV of the Work Relief and Public Works Appropriation Act of 1938 (Public Resolution No. 122, 75th Congress, approved June 21, 1938) has been waived by the Administrator of the Rural Utilities Service ("RUS"). For purposes of this Section, an "eligible country" is any country that applies with respect to the United States an agreement ensuring reciprocal access for United States products and services and United States suppliers to the markets of that country, as determined by the United States Trade Representative. The Contractor shall provide to Oglethorpe such information, documents, and certificates as may be requested by Oglethorpe or the Administrator of the RUS from time to time with respect to any articles, materials or supplies used in connection with any Project.

#### **15 EQUAL EMPLOYMENT OPPORTUNITY**

During the performance of this GSA and any Task Releases:

15.1 The Contractor will not discriminate against any worker, employee or applicant for employment because of race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap. The Contractor will take affirmative action to ensure that applicants are employed, and that workers are treated during employment, without regard to their race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap. Such action shall include, but not be limited to, the following: employment; upgrading; demotion; transfer; recruitment; recruitment advertising; layoff; termination; rates of pay or other forms of compensation; and, selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by Oglethorpe's representative hereinafter named, setting forth the provisions of this nondiscrimination clause.

15.2 The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap.

15.3 The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by Oglethorpe's representative, advising the labor union or workers' representative of the Contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

15.4 The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

15.5 The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders pursuant thereto, and will permit access to his books, records, and accounts by Oglethorpe's representative and governmental regulatory authorities such as the U.S. Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

15.6 In the event of the Contractor's noncompliance with the nondiscrimination clauses of this GSA or with any of such rules, regulations, or orders of the Secretary of Labor, this GSA or any Task Release may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

15.7 The Contractor will include the provisions of Paragraphs 15.1 through 15.6 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

## **16 CONTINGENCY FEES**

16.1 The Contractor represents that it has not employed and shall not employ any person other than its own principals and employees to solicit this GSA or any Task Release or any contract with Oglethorpe, and that it has not and shall not pay any person other than its own principals and employees any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this GSA, any Task Release or any other contract with Oglethorpe.

## **17 SUBCONTRACTORS**

17.1 The Contractor shall manage all work and services performed under this GSA and any Task Release. Upon Oglethorpe's written consent, the Contractor may subcontract any portion of the services to be provided under any Task Release. In such event, the right and obligations of the Contractor, Oglethorpe, and any Owner will not be diminished.

17.2 All of the Contractor's Subcontractors shall be directly responsible to the Contractor and shall be under the Contractor's direct supervision. The Contractor shall be as fully responsible to Oglethorpe and any Owner for the acts and omissions of its Subcontractors and of persons either directly or indirectly employed by them in the performance of services under this GSA and any Task Release as the Contractor is for the acts and omissions of persons it directly employs. Nothing contained in this GSA or in any Task Release shall create any contractual relationship between any Subcontractor and Oglethorpe or any Owner.

17.3 If the Contractor utilizes any Subcontractor with respect to this GSA and any Task Release, the Contractor shall require the Subcontractor to comply with all terms and conditions of this GSA applicable to the Contractor and any applicable Task Release, including, but not limited to, the requirements with respect to the types and limits of insurance coverage set forth in Section 18. With respect to each Subcontractor, the Contractor shall obtain and maintain in its records a certificate of insurance from each insurer of the Subcontractor, and, upon the request of Oglethorpe, the Contractor shall furnish copies of such certificates of insurance to Oglethorpe. Upon the request of Oglethorpe, the Contractor shall cause a Subcontractor to name Oglethorpe and any Owner as Additional Insureds under the Automobile Liability, Commercial General Liability, Pollution Liability, and any Excess Liability policies required to be maintained by such Subcontractor.

17.4 If a Subcontractor performs services on a Project, the Contractor shall promptly pay such Subcontractor the amounts due to such Subcontractor in respect of such services. Without limiting the generality of the indemnification provided in Section 19, the Contractor shall indemnify and defend Oglethorpe and any Owner from and against any lien or claim filed or asserted against the property of Oglethorpe or any Owner on account of any services or materials provided by any Subcontractor. The Contractor shall promptly remove or cause to be removed all claims and liens filed against Oglethorpe's or any Owner's property by any Subcontractor.

## **18 INSURANCE**

18.1 The Contractor, at its expense, shall maintain in effect, without interruption, policies of insurance providing the type and limits of coverage set forth on Schedule 1 attached hereto and complying with the other requirements of this Section 18. Upon Contractor's receipt of notice or knowledge of the cancellation, nonrenewal or any change in the limits or type of coverage of any of the required policies, Contractor shall immediately deliver written notice of such cancellation, nonrenewal, or change to Oglethorpe.

18.2 For each of the Automobile Liability, Commercial General Liability, Pollution Liability, and any Excess Liability policies identified on Schedule 1, the Contractor shall cause its insurer for such policy to issue an endorsement to the policy to add Oglethorpe and each Owner as an Additional Insured on such policy with respect to claims, losses, damages, liabilities, and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations under this GSA or any Task Release; provided, however, that each Owner will be an Additional Insured under such policies only to the extent of claims, losses, damages, liabilities and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations with respect to a facility at which any such Owner has an ownership interest. Such insurance policies shall provide cross-liability coverage.

18.3 On or before the date this GSA becomes effective, the Contractor shall provide, or cause to be provided, to Oglethorpe a certificate of insurance from its insurance agent evidencing that the insurance policies in the types and in the amounts set forth on Schedule 1 are in full force and effect and indicating the policy periods for such policies. In addition, the certificate of insurance must include the following statement:

Oglethorpe Power Corporation, Smarr EMC, Murray I and II LLC, and Georgia Power Company (to the extent of its ownership in the Rocky Mountain Hydroelectric Plant) are each named as an additional insured under the Automobile Liability, Commercial General Liability, Pollution Liability, and any Excess Liability policies, to the extent required by the General Services Agreement between the Insured and Oglethorpe Power Corporation.

The Contractor shall provide, or cause to be provided, additional certificates of insurance to Oglethorpe each time such policies are renewed or replaced or any change is made in the limits or type of coverage provided under the policies and at such other times as Oglethorpe may request, including, without limitation, as required by Paragraph 18.6. Upon the request of Oglethorpe, the Contractor shall cause the insurers for such policies to provide copies of the endorsed policies to Oglethorpe.

18.4 The Contractor's insurance policies are the primary insurance policies with respect to any and all claims, losses, damages, liabilities and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations under this GSA or any Task Release to the extent covered thereby, and Oglethorpe's or any Owner's insurance shall be in excess of the Contractor's insurance and shall not contribute with it.

18.5

- A. The Contractor waives all claims and rights to recover damages against Oglethorpe and any Owner and their respective members, directors, officers, employees, agents, insurers, subcontractors and consultants for any and all claims, losses, damages, liabilities and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations under this GSA or any Task Release, to the extent covered by one or more of the following: (i) any of the insurance policies the Contractor is required to maintain pursuant to this Section 18, and (ii) any of the Contractor's other insurance policies, including, without limitation, property insurance.
- B. In addition to the waiver set forth in Paragraph 18.5(A), with respect to any services that the Contractor performs at the Chattahoochee Energy Facility, the Contractor also waives all claims and rights to recover damages against MEAG and Southern Power to the same extent that the Contractor waives all claims and rights against Oglethorpe and any Owner and their respective members, directors, officers, employees, agents, insurers, subcontractors and consultants as set forth in Paragraph 18.5(A).

18.6 Prior to performing any services at the Chattahoochee Energy Facility:

- A. The Contractor shall cause each of its insurers with respect to the policies identified on Schedule 1 and all of its property insurers (if any) (i) to waive all rights of subrogation against Oglethorpe, MEAG and Southern Power for claims, losses, damages, liabilities and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations with respect to the Chattahoochee Energy Facility under this GSA or any Task Release; and (ii) to issue endorsements to such policies to waive such subrogation rights to the extent the terms of the policies require such endorsements to effect such waivers.
- B. The Contractor shall provide a certificate of insurance to Oglethorpe that, in addition to satisfying Paragraph 18.3, includes the following statement:

Each insurer has waived all rights of subrogation against Oglethorpe Power Corporation, Municipal Electric Authority of Georgia and Southern Power Company, to the extent required by the General Services Agreement between the Insured and Oglethorpe Power Corporation.

Upon the request of Oglethorpe, the Contractor shall cause its insurers to provide copies of the endorsed policies to Oglethorpe.

## **19 INDEMNIFICATION**

19.1 The Contractor agrees to indemnify, hold harmless and defend Oglethorpe, any Owner and their respective members, directors, officers, employees, agents, contractors, subcontractors and consultants from and against any and all liability, claims, actions, causes of action, losses, damages, demands, suits, judgments, costs and expenses (including attorneys' fees and expenses) presented or brought for the presence, storage, transportation, handling, release or disposal of substances regulated under any environmental law, regulation, or ordinance or for any injuries (including death) to persons or any damages to property arising out of or relating to (i) the Contractor's or any Subcontractor's performance of, or failure to perform, its obligations under this GSA or any Task Release or (ii) any negligence, strict liability or willful misconduct of Contractor or its employees, Subcontractors or agents, including, but not limited to, any and all costs, expenses, legal fees and liabilities, incurred in connection with investigation, defense or settlement thereof. Nothing in this paragraph shall require Contractor to indemnify any indemnified party for such party's sole negligence.

## **20 CONTRACT ADMINISTRATION**

20.1 Any party giving or making any notice, request, demand or other communication under this GSA shall give or make such notice, request, demand or other communication to the person and at the address designated by the receiving party in Paragraph 1.1, or such other person or address subsequently designated by the party in a written notice to the other party.

20.2 To be binding against Oglethorpe, and as a condition precedent thereto, any addition to, deletion from or modification to the terms of this GSA and any Task Release must be in writing and signed by both Oglethorpe and the Contractor. The Contractor acknowledges and agrees that Oglethorpe does not, and shall not be deemed to, waive this condition precedent under any circumstances.

20.3 Failure of Oglethorpe or the Contractor to insist in any one or more instances on performance of any of the terms and conditions of this GSA or any Task Release, or to exercise any right or privilege contained in this GSA or any Task Release, or the waiver of any breach of the terms and conditions of this GSA or any Task Release, shall not be considered as thereafter waiving any such terms, conditions, rights or privileges, and the same shall continue and remain in force and effect.

20.4 The Contractor acknowledges that Oglethorpe is a generation corporation owned by its Members, which are electric membership cooperatives. Notwithstanding any other terms and conditions stated in this GSA or any Task Release, Oglethorpe reserves the right without the consent of the Contractor to assign this GSA or any Task Release or any of the rights arising thereunder, in whole or in part. The Contractor, however, shall not assign any of its rights, or delegate any of its duties, without the prior written consent of Oglethorpe.

20.5 Upon termination of this GSA, the following provisions will continue in effect: (i) the provisions of Sections 5 and 6, to the extent necessary to provide for final billing and payments and the transfer of work product; (ii) Section 19, Paragraph 8.2, Paragraph 17.4 and any other provision relating to liability or indemnification for acts or events that occurred while this GSA was in effect; and (iii) the confidentiality provisions for the periods set forth in Section 4.

20.6 This GSA and any Task Release shall be governed by the laws of the State of Georgia.

20.7 Time is of the essence in this GSA and any Task Release.

20.8 If any provision of this GSA or any Task Release is determined invalid or unenforceable under applicable law, the remainder of this GSA or any Task Release shall continue in full force and effect and there shall be substituted for such illegal or unenforceable provision a like but legal and enforceable provision which most clearly carries into effect the intention of the original provision. In the event a like but legal and enforceable provision cannot be substituted, the illegal or unenforceable provision shall be deemed to be deleted and the remaining provisions of this GSA or any Task Release shall continue in full force and effect.

## **21 FORCE MAJEURE**

21.1 Each of the Contractor and Oglethorpe will not be responsible or liable in any way for its delay or failure to perform its obligations under this GSA and any Task Release during any period in which performance is prevented or hindered by conditions reasonably beyond its control, acts of God, fire, flood, other weather conditions, war, embargo, explosions, riots, laws, rules, regulations or orders of any governmental authority.

## **22 CAPTIONS**

22.1 The headings in this GSA are for the convenience of the parties hereto and shall in no way affect the construction or interpretation of this GSA or any Section or Paragraph.

## **23 THIRD PARTY BENEFICIARIES**

23.1 This GSA confers enforceable rights and remedies upon the following (collectively, the "Intended Third Party Beneficiaries"): (i) any Owner, as set forth in Sections 3, 4, 5, 7, 8, 9, 11, 17, 18 and 19; (ii) Oglethorpe's and each Owner's respective members, directors, officers, employees, agents, contractors, subcontractors and consultants, as set forth in Sections 18 and 19; and (iii) Southern Power and MEAG, as set forth in Section 18. This GSA is not intended to, nor may it be deemed to, create any rights of enforcement in any person who is neither a party to this GSA nor specifically listed in the preceding sentence. Oglethorpe and the Contractor reserve the power to modify or terminate this GSA as provided herein without the consent of any of the Intended Third Party Beneficiaries.

IN WITNESS WHEREOF, Oglethorpe and the Contractor, each acting through a duly authorized officer, have placed their signatures on duplicate original copies of this GSA.

OGLETHORPE POWER CORPORATION  
(AN ELECTRIC MEMBERSHIP CORPORATION)

By: James A. Messersmith

Name: James A. Messersmith

Title: Senior Vice President Plant Operations

Date: 7/5/2012

PHILLIPS RECOVERIES, INC.

By: Vickie S. Phillips

Name: Vickie S Phillips

Title: VP/EHS

Federal Tax ID No: 57-1038343

Date: 7-3-12

GSA NUMBER: C1882

EXHIBIT A (See Paragraph 12.1)

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND  
VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Order 12549,  
Debarment and Suspension, 7 CFR Part 3017.

**(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW)**

1. The prospective Lower Tier Participant certifies, by submission of this proposal that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
2. Where the prospective Lower Tier Participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PHILLIPS RECOVERIES, INC.

\_\_\_\_\_  
Organization Name

*Vickie S. Phillips, VP*  
\_\_\_\_\_  
Name and Title of Authorized Representative

*Vickie S. Phillips*  
\_\_\_\_\_  
Signature

*7-3-12*  
\_\_\_\_\_  
Date

## INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this form, the prospective Lower Tier Participant is providing the certification set out below in accordance with these instructions.
2. The certification in this clause is a material representation of fact which reliance was placed when this transaction was entered into. If it is later determined that the prospective Lower Tier Participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies including suspension and/or debarment.
3. The prospective Lower Tier Participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective Lower Tier Participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "Lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective Lower Tier Participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter in to any lower tier covered transaction with a person who is proposed for debarment under 48 C.F.R part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective Lower Tier Participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all Lower Tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant is a lower tier covered transaction that it is not proposed for debarment under 48 C.F.R part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 C.F.R. part 9, sub part 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

GSA NUMBER: C1882

EXHIBIT B (See Paragraph 13.1)

## LOBBYING CERTIFICATION

## Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

PHILLIPS RECOVERIES, INC.

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 Organization Name

Vickie S. Phillips

Name of Authorized Official

Vickie S. Phillips

Signature

7-3-12

Date

**SCHEDULE 1 – INSURANCE REQUIREMENTS**

<b>Type of Insurance Policies</b>	<b>Minimum Coverage Limits</b>
Workers' Compensation	(Statutory)
Employer's Liability	\$1,000,000 per occurrence
Commercial General Liability and/or Excess Liability Must include bodily injury and property damage coverage for contractual liability <b>See Note 1 below for additional requirements</b>	<b>\$2,000,000 per occurrence</b>
Comprehensive Auto Liability Must include coverage for hired and non-owned autos. <b>See Note 1 below for additional requirements</b>	\$1,000,000 per occurrence
If checked "yes," then pollution liability coverage as stated below is required.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Pollution Liability Must include liability coverage for removal, transit, and/or disposal of hazardous substances.  Coverage must remain in full force for two (2) years after completion of all services under, or the termination of this Agreement or any Task Release.	<b>\$1,000,000 per occurrence and \$2,000,000 annual aggregate</b>
If checked "yes," then professional liability coverage as stated below is required.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Professional Liability Coverage must remain in full force for two (2) years after completion of all services under, or the termination of this Agreement or any Task Release.	\$1,000,000 annual aggregate

**NOTE 1**

Oglethorpe Power Corporation, Smarr EMC, Murray I and II LLC, and Georgia Power Company (to the extent of its ownership in the Rocky Mountain Hydroelectric Plant) are each an Additional Insured under the Automobile Liability and Commercial General Liability policies, to the extent required by the General Services Agreement between the Insured and Oglethorpe Power Corporation.

And Prior to performing any services at the Chattahoochee Energy Facility:

Each insurer has waived all rights of subrogation against Oglethorpe Power Corporation, Municipal Electric Authority of Georgia and Southern Power Company, to the extent required by the General Services Agreement between the Insured and Oglethorpe Power Corporation.

Refer to Section 18 of GSA for detailed insurance certificate requirements.

OPC Plant Operations Schedule 1- Level 1

11:45 AM  
07/30/12  
Accrual Basis

**Phillips Recoveries, Inc.**

**Find Report**

**January 1, 2011 through July 30, 2012**

Jan 1, '11 - Jul 30, 12

Date	Name
07/26/2012	Canal Insurance Co.
07/12/2012	Cryovac Incorporated
07/12/2012	Electrolux Home Products
07/09/2012	VLS Recovery Services, LLC
06/14/2012	Budweiser of Greenville
05/22/2012	J & M Trucking LLC
05/04/2012	First Quality Tissue – SE
04/23/2012	Highlands Environmental Solutions, Inc
03/29/2012	Cryovac Incorporated
03/26/2012	Michelin North America, Inc.
03/05/2012	Caterpillar Inc.
03/05/2012	First Quality Tissue – SE
03/05/2012	Blue Flames Car Wash
02/27/2012	Owens Corning Sales, Inc.
02/16/2012	O'Dell Oil Co.
02/16/2012	O'Dell Oil Co.
02/13/2012	Robbie D. Wood
02/03/2012	AFCO
01/27/2012	Caterpillar Inc.
01/25/2012	Ben Wiggington
01/18/2012	Easley Combined Utilities
01/17/2012	Caterpillar Inc.
01/11/2012	First Quality Tissue – SE
01/10/2012	Sage Automotive Interiors
01/06/2012	Span Packaging
12/22/2011	Powers Properties
12/06/2011	Greenville Memorial Hospital
12/02/2011	Transportation Spill Solutions
11/14/2011	The Spinx Company, Inc.
10/18/2011	Owens Corning Sales, Inc.
09/30/2011	Owens Corning Sales, Inc.
08/25/2011	Owens Corning Sales, Inc.
08/01/2011	B Line Trucking
07/28/2011	Owens Corning Sales, Inc.
07/25/2011	Milliken - Cedar Hill
07/22/2011	Cryovac Incorporated
06/29/2011	Greenville Memorial Hospital
06/20/2011	Greenville Memorial Hospital
06/10/2011	Robbie D. Wood
05/12/2011	Santee Cooper
04/04/2011	Owens Corning Sales, Inc.
03/31/2011	Michelin North America, Inc.
03/25/2011	AET
03/16/2011	Owens Corning Sales, Inc.

11:45 AM  
07/30/12  
Accrual Basis

**Phillips Recoveries, Inc.  
Find Report**

**January 1, 2011 through July 30, 2012**

<u>Date</u>	<u>Name</u>
02/02/2011	Rainey Generating Station
01/31/2011	Travelers Charlotte Claim Service Center
01/20/2011	Owens Corning Sales, Inc.
01/07/2011	Owens Corning Sales, Inc.
01/06/2011	ERTS Online
01/05/2011	Campbell Crane Co.
01/04/2011	Cryovac Incorporated
01/01/2011	AET

Jan 1, '11 - Jul 30, 12

11:45 AM  
07/30/12  
Accrual Basis

**Phillips Recoveries, Inc.**  
**Find Report**  
**January 1, 2011 through July 30, 2012**

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Jan 1, '11 - Jul 30, 12

Hours- Emergency Response Truck, F-250 w/ Spill Trailer  
 RE: Cryovac Simpsonville, SC - Spill - Resin Pellets  
 RE: Electrolux Home Products - Clean Up Spill  
 RE: US Wool Tank Overflow Spill  
 RE: Budweiser of Greenville- Clean up Diesel Spill Onsite  
 5/7/12 Greer Spill  
 5/1- Spill  
 4/20/12- Tidewater Transit Spill  
 3/21- Lime Spill  
 2/28 Sandy Springs Spill  
 2/29 Spill  
 2/29- Broke Line Spill  
 RE: Blue Flame Car Wash Pickens, SC: Surfactant Spill  
 RE: Owens Corning Plant Starr, SC : Vac Truck Work- Spill on Rooftop  
 RE: Emergency Spill Response- Shady Grove Road Belton, SC  
 Transport D-5 Dozer to Spill Site, Richard: 7a - 11:30a  
 2/7/12 Spill  
 2/1 Spill  
 1/23, 26 Spill  
 RE: Hwy 24 Truck Spill- Trucking & Disposal  
 1/16 Spill  
 1/12 Spill  
 1/8- Spill  
 1/3/12 #6 Oil Spill  
 RE: EMERGENCY RESPONSE - Span Packaging Spartanburg, SC - Ink Spill  
 12/3-5 Spill  
 12/5/11 Spill  
 11/21 Borg Warner Spill  
 11/4/11- HWY 29 Spill  
 10/11- Spill  
 RE: Owens Corning - Spill at Water Wash Screens  
 8/13 Shaker Spill  
 7/9/11 Spill  
 RE: Owens Corning - Spill in Factory D Settling Tank  
 7/18 Latex Spill  
 7/16 Resin Pellet Spill  
 6/25/11 Spill  
 6/19/11 Spill  
 6/7/11 Spill  
 5/10/11 Spill at ARL  
 3/30 Basement Spill  
 3/28/11 Sulfuric Acid Spill- Sandy Springs  
 RE: Spill at mill in Liberty, SC  
 3/11 Diverter Room Spill

11:45 AM  
07/30/12  
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**Phillips Recoveries, Inc.**  
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1/26 Glycol Spill

R: Emergency Response - SECOR-Michael Kerns/Director Safety - Columbia SC Spill Travelers Cl...

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12/21 Vac Truck- Batch Spill

Presentation of this invoice constitutes submission of a claim to the responsible party un...

11/22 Converse College Spill

11/23 Resin Pellet Spill

RE: G.P. Thompson Enterprise Spill on I-85 - Mike Marovich

Jan 1, '11 - Jul 30, 12



February 2, 2012

Mr. Sam Najim, P.E.  
Senior Environmental Specialist  
Oglethorpe Power Corporation  
2100 East Exchange Place  
Tucker, GA 30084

Dear Sam:

Enclosed is Remtech's 2012 Emergency Response & Remediation Equipment List. Remtech is also listed in the OSRO/USCG Response Resource Inventory with Group V Capabilities.

Let us know if you have any questions or need additional information. We would welcome the opportunity to continue to work on your environmental projects.

Respectfully Submitted,



Mark D. Ryckman, P.E., B.C.E.E.  
Board Certified Environmental Engineer

Enclosures

**Site Remediation, Emergency Response & Remediation Equipment**

200 North Cobb Parkway, Suite 208, Marietta, Georgia 30062  
Phone: (800) 377-3648 or (770) 427-7766 x 203, Fax: (770) 427-7001  
email: mryckman@remtech-eng.com, website: <http://www.remtech-eng.com>



# United States Coast Guard Response Resource Inventory System



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## OSRO MECHANICAL CLASSIFICATION FOR OWNER/ORGANIZATION:

Rentech Engineers  
 200 N Cobb Parkway, Suite 208  
 Marietta, GA 30062

*This Organization has Group V capabilities.*

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**REMTECH EMERGENCY RESPONSE & SITE REMEDIATION RESOURCES**  
(January, 2012)

Location: (b) (7)(F), (b) (3)

Personnel	Atlanta
Hazwopper & Incident Commander Trained Supervisors & Responders	15
<b>Facilities</b>	
Corporate Headquarters in Marietta, Georgia	1
Warehouse, Site Remediation & Emergency Response Equipment Manufacturing Facility	
<b>Communications, Navigation, &amp; GPS Equipment</b>	
Radio Phones	8
Cell Phones	10
Iphones	5
IPads	3
Navionics Marine & Land Navigation Software with Photo & GPS Plotting	4
Navigon Navigational Software	4
Google Earth Navigational Software	4
Topo Maps, US 15-minute Digital Maps with GPS Navigation & Plotting	4
Video Conferencing/Streaming Units	4
Portable Computers with GPS, Aircards, and Internet Access	3
<b>Environmental Surveillance Equipment</b>	
Colorimetric Gas Detection Tubes	300
Combustible Gas Meter	4
Dissolved Oxygen Meter	2
Free Product Interface Probe	1
Geiger Counter	1
MSA Haz Mat Detection Kit	2
Multi-Gas Meter, O2, CO, LEL, H2S	2
Personnel Monitors & Calibration Kit	2
pH Meter	3
Photo Documentation	
Time Dated Cameras	8
Cam Recorders	3
Photoionization Detector	1
Portable GC	2
Lomex Mercury Detector	1
Portable Hach Kits	4
Redi-flow Pump	1
Samplair Sampler	3
Slope Indicators	2
Survey Instrumentation	2
Drexil Hydrocarbon Soil, PCB (liquid & Soil) Test Kits	4
Temperature and Conductivity Meter	1
Infrared Thermal Detector	2
<b>Personal Protection Equipment</b>	
Bullard Breathing Air Pump	1
Confined Space Entry Tripod and Retractor Cable	1
Full Face Respirators, MSA	15
Powered Air Respirators, Scott	6
Level A Chemical Protective Suits	8
Level B Chemical Protective Suits	20
Level C Chemical Protective Suits	200
Fire Proximity Suits	4

 **Remtech Engineers**<sup>TM</sup>  
Remediation Specialists  
200 North Cobb Parkway  
Suite 208  
Marietta, Georgia 30062  
770-427-7766

<b>Personal Protection Equipment, continued</b>	<b>Atlanta</b>
Flame Resistant Jump Suits	15
MSA Air Packs	8
Nose Respirators	15
Spare Bottles	6
Umbilical Cord Air Cascade Systems	4
Boots, Waders	10
Boots, Hip Boots	10
Life Jackets	5
Manhole Blower	1
<b>Portable Treatment Equipment</b>	
20 gpm Remtech strippers, 20 ft x 14 Tripak Media	2
70 gpm Low-Profile Diffused Tray Stripper	1
Mobile Treatment Plants	3
Oil/Water Separator, Stripper, Carbon Filtration	
Carbon Filtration - Gas Phase	2
Carbon Filtration - Liquid Phase	2
Chemical Feed Pumps & pH Controllers	5
Clarifiers	4
Neutralization Flash Mixers	2
Portable Chemical Fixation Equipment	1
Sand Filters	2
Groundwater Treatment	
Air Sparge Equipment	2
Recovery Well Pumps	10
Free Product Recovery Pumps	4
Soil Treatment	
Soil Vent Demister/Filters & Blowers	4
BioVent Systems	2
Soil & Groundwater Treatment	
Total Fluids & Vapor Extraction - Liquid Ring Extractors	1
Multi-Phase Deep Vacuum Unit (26" Hg)	1
<b>Cleanup Equipment &amp; Supplies</b>	
Remtech 20 and 55-gallon Spill Kits	5
Sorbent (poly and cellulose)	
Sorbent Pads	8,000
Sorbent Rolls	1,400 lf
Sorbent Socks	400 lf
Sorbent Sweeps	400 lf
Oil Dry (Chipped Clay)	3,500 lbs
Sand Bags	1,000
Straw Bales & Stakes	50
Spill Containment/Deflection Boom	
OSRO USCG River Boom (6 - 18 inch)	2,500 lf
OSRO USCG River Boom (6 - 18 inch), offsite storage	10,000 lf
Sorbent Booms, 5 inch	800 lf
Wash Down Pumps	2
Skimmer Heads	5
Rope Mop	1
Rope - 3/8" to 1 inch	2,000 lf



200 North Cobb Parkway  
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<b>Cleanup Equipment &amp; Supplies, Continued</b>	<b>Atlanta</b>
Pumps (Specialty Chemical Transfer)	
<i>Stainless, Polyethylene, Cast Iron, Aluminum Pumps</i>	
Centrifugal Pumps	
1" Explosion Proof	1
1" Self Priming Centrifugal	3
3" Self Priming Centrifugal	1
4" Self Priming Centrifugal	1
6" Self Priming Centrifugal	4
Diaphragm Pumps	
3" Aluminum, gasoline driven, Flap Diaphragm	3
2" Stainless with Teflon	1
2" Aluminum with Butyl	4
2" Poly with Wilflex	3
2" Aluminum Flap Diaphragm Sludge Pump	1
1.5" Aluminum with Buna	5
1.5" Poly with Viton	1
1" Aluminum	2
1" Poly with Wilflex	4
Submersible Sewage Pumps (1, 2, 2.5-inch)	4
Trash/Mud Pumps	
2" Trash Pump	2
3" Trash Pump	8
4" Trash Pump	2
6" Trash Pump	2
Vacuum System, Guzzler, air-air eductor flammable liquid & sludge pump	1
Hose - Specialty Chemical	
1.0 - Inch Nylon Reinforced Suction & Discharge Hose	600 lf
1.5 - Inch PVC Suction & Discharge Hose	950 lf
2.0 - Inch Butyl Suction & Discharge Hose	500 lf
2.0 - Inch XLPE Suction & Discharge Hose	350 lf
3.0 - Inch PVC Suction & Discharge Hose	800 lf
6.0 - Inch Suction Hose	300 lf
Vacuum Cleaners	
HEPA - Wet/Dry Vacs	4
HEPA - Wet/Dry Drum Vacs	2
Mercury Vacuums	1
Blowers	
Manhole Ventilators (1, 2, and 5 HP)	2
Smoke Testing Blowers (for Sewers)	1
2,000 cfm HEPA/Chemical Filter Air Handler	1
Drums & Totes	
Overpaks poly	
20-Gallon	30
85-Gallon Steel	20
95-Gallon Poly	8
HDPE 55-gallon open top and closed head	100
55-gallon steel open top and closed head	70
250-gallon Emergency Containment Totes	10
500-gallon Poly Portable Tanks	4
600-gallon Oil/Water Separator	2



200 North Cobb Parkway  
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<b>Cleanup Equipment &amp; Supplies, Continued</b>	<b>Atlanta</b>
Plastic & Membranes	
4/6-mil oversize poly bags	300
4/6-mil sheet plastic	12,000 sf
16- mil PVC membrane	3,600 sf
Geotechnical Fabric - Soil Stabilization	1,000 sf
Bags (Supersacks) - Hazardous Waste 1 cubic yard	200
Extinguishers & Vapor Suppressants	
FFFP Foam Vapor Suppressers	6
Purple K Dry Chemical Extinguishers	4
Compressors	
375 cfm Trailer Mount Compressor, offsite storage	2
185 cfm Trailer Mount Compressor, offsite storage	2
75 cfm Portable Compressor	1
27.2 cfm, 12 Hp Portable Air Compressor	6
19 cfm, 9 Hp Portable Air Compressors	1
12 cfm, 5.5 Hp Portable Air Compressors	3
Generators	
30 HP, 15 KW/220/110 volt Generator	1
20 Hp, 10 KW/220/110 volt Generator	1
13 HP/220/110 volt Generators	2
5.5 HP 220/110 volt Generators	2
8 HP 220/110 volt Generator	2
100 KW Generators, Diesel, offsite storage	3
Emergency Lighting	
Explosion Proof Lights	2
Flashlights	15
Flood Lights	10
Quartz Tripod Lights	4
Emergency Response Trailers	
16 Ft Emergency Response Trailer	1
20 Ft Emergency Response Trailer	1
20 Ft Emergency Product Transfer Trailer	1
16 Ft Open Equipment Trailer	1
16 Ft Closed Equipment Trailer	1
16 Ft Enclosed Straw/Stake Trailer	1
16 Ft Rapid Deployment Boom & Boat Trailer	1
Leak Repair Kits	
Drum Repair Kits	1
Gasket Repair Kit	1
Oversize Rail Car Wrenches	2
Pipe/Transfer Line Leak Repair Kit	1
Pressurized Tank Car Repair Kit	1
Tank Car Repair Kits, Midland, Chlorine Institute A, B, & C	1
Tanker Repair Kits	1
Tote Repair Kits	1
Tank Car & Tanker Pneumatic & Hydraulic Off-Loading Connections	25
Safety Equipment	
Barricades/Flashers	8
Emergency Light Strobes	8
First Aid Kits	5
Personal Decontamination Stations	2
Safety Lines and Harnesses	4
Traffic Cones	30

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**Phillips Recoveries, Inc.**

**Find Report**

**January 1, 2011 through July 30, 2012**

Jan 1, '11 - Jul 30, 12

Date	Name
07/26/2012	Canal Insurance Co.
07/12/2012	Cryovac Incorporated
07/12/2012	Electrolux Home Products
07/09/2012	VLS Recovery Services, LLC
06/14/2012	Budweiser of Greenville
05/22/2012	J & M Trucking LLC
05/04/2012	First Quality Tissue – SE
04/23/2012	Highlands Environmental Solutions, Inc
03/29/2012	Cryovac Incorporated
03/26/2012	Michelin North America, Inc.
03/05/2012	Caterpillar Inc.
03/05/2012	First Quality Tissue – SE
03/05/2012	Blue Flames Car Wash
02/27/2012	Owens Corning Sales, Inc.
02/16/2012	O'Dell Oil Co.
02/16/2012	O'Dell Oil Co.
02/13/2012	Robbie D. Wood
02/03/2012	AFCO
01/27/2012	Caterpillar Inc.
01/25/2012	Ben Wiggington
01/18/2012	Easley Combined Utilities
01/17/2012	Caterpillar Inc.
01/11/2012	First Quality Tissue – SE
01/10/2012	Sage Automotive Interiors
01/06/2012	Span Packaging
12/22/2011	Powers Properties
12/06/2011	Greenville Memorial Hospital
12/02/2011	Transportation Spill Solutions
11/14/2011	The Spinx Company, Inc.
10/18/2011	Owens Corning Sales, Inc.
09/30/2011	Owens Corning Sales, Inc.
08/25/2011	Owens Corning Sales, Inc.
08/01/2011	B Line Trucking
07/28/2011	Owens Corning Sales, Inc.
07/25/2011	Milliken - Cedar Hill
07/22/2011	Cryovac Incorporated
06/29/2011	Greenville Memorial Hospital
06/20/2011	Greenville Memorial Hospital
06/10/2011	Robbie D. Wood
05/12/2011	Santee Cooper
04/04/2011	Owens Corning Sales, Inc.
03/31/2011	Michelin North America, Inc.
03/25/2011	AET
03/16/2011	Owens Corning Sales, Inc.

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**January 1, 2011 through July 30, 2012**

Date	Name
02/02/2011	Rainey Generating Station
01/31/2011	Travelers Charlotte Claim Service Center
01/20/2011	Owens Corning Sales, Inc.
01/07/2011	Owens Corning Sales, Inc.
01/06/2011	ERTS Online
01/05/2011	Campbell Crane Co.
01/04/2011	Cryovac Incorporated
01/01/2011	AET

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Hours- Emergency Response Truck, F-250 w/ Spill Trailer  
 RE: Cryovac Simpsonville, SC - Spill - Resin Pellets  
 RE: Electrolux Home Products - Clean Up Spill  
 RE: US Wool Tank Overflow Spill  
 RE: Budweiser of Greenville- Clean up Diesel Spill Onsite  
 5/7/12 Greer Spill  
 5/1- Spill  
 4/20/12- Tidewater Transit Spill  
 3/21- Lime Spill  
 2/28 Sandy Springs Spill  
 2/29 Spill  
 2/29- Broke Line Spill  
 RE: Blue Flame Car Wash Pickens, SC: Surfactant Spill  
 RE: Owens Corning Plant Starr, SC : Vac Truck Work- Spill on Rooftop  
 RE: Emergency Spill Response- Shady Grove Road Belton, SC  
 Transport D-5 Dozer to Spill Site, Richard: 7a - 11:30a  
 2/7/12 Spill  
 2/1 Spill  
 1/23, 26 Spill  
 RE: Hwy 24 Truck Spill- Trucking & Disposal  
 1/16 Spill  
 1/12 Spill  
 1/8- Spill  
 1/3/12 #6 Oil Spill  
 RE: EMERGENCY RESPONSE - Span Packaging Spartanburg, SC - Ink Spill  
 12/3-5 Spill  
 12/5/11 Spill  
 11/21 Borg Warner Spill  
 11/4/11- HWY 29 Spill  
 10/11- Spill  
 RE: Owens Corning - Spill at Water Wash Screens  
 8/13 Shaker Spill  
 7/9/11 Spill  
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1/26 Glycol Spill

R: Emergency Response - SECOR-Michael Kerns/Director Safety - Columbia SC Spill Travelers Cl...

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RE: G.P. Thompson Enterprise Spill on I-85 - Mike Marovich

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February 2, 2012

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Dear Sam:

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Mark D. Ryckman, P.E., B.C.E.E.  
Board Certified Environmental Engineer

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Cell Phones	10
Iphones	5
IPads	3
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Navigon Navigational Software	4
Google Earth Navigational Software	4
Topo Maps, US 15-minute Digital Maps with GPS Navigation & Plotting	4
Video Conferencing/Streaming Units	4
Portable Computers with GPS, Aircards, and Internet Access	3
<b>Environmental Surveillance Equipment</b>	
Colorimetric Gas Detection Tubes	300
Combustible Gas Meter	4
Dissolved Oxygen Meter	2
Free Product Interface Probe	1
Geiger Counter	1
MSA Haz Mat Detection Kit	2
Multi-Gas Meter, O2, CO, LEL, H2S	2
Personnel Monitors & Calibration Kit	2
pH Meter	3
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Time Dated Cameras	8
Cam Recorders	3
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Portable GC	2
Lomex Mercury Detector	1
Portable Hach Kits	4
Redi-flow Pump	1
Samplair Sampler	3
Slope Indicators	2
Survey Instrumentation	2
Drexil Hydrocarbon Soil, PCB (liquid & Soil) Test Kits	4
Temperature and Conductivity Meter	1
Infrared Thermal Detector	2
<b>Personal Protection Equipment</b>	
Bullard Breathing Air Pump	1
Confined Space Entry Tripod and Retractor Cable	1
Full Face Respirators, MSA	15
Powered Air Respirators, Scott	6
Level A Chemical Protective Suits	8
Level B Chemical Protective Suits	20
Level C Chemical Protective Suits	200
Fire Proximity Suits	4

 **Remtech Engineers**<sup>TM</sup>  
Remediation Specialists  
200 North Cobb Parkway  
Suite 208  
Marietta, Georgia 30062  
770-427-7766

<b>Personal Protection Equipment, continued</b>	<b>Atlanta</b>
Flame Resistant Jump Suits	15
MSA Air Packs	8
Nose Respirators	15
Spare Bottles	6
Umbilical Cord Air Cascade Systems	4
Boots, Waders	10
Boots, Hip Boots	10
Life Jackets	5
Manhole Blower	1
<b>Portable Treatment Equipment</b>	
20 gpm Remtech strippers, 20 ft x 14 Tripak Media	2
70 gpm Low-Profile Diffused Tray Stripper	1
Mobile Treatment Plants	3
Oil/Water Separator, Stripper, Carbon Filtration	
Carbon Filtration - Gas Phase	2
Carbon Filtration - Liquid Phase	2
Chemical Feed Pumps & pH Controllers	5
Clarifiers	4
Neutralization Flash Mixers	2
Portable Chemical Fixation Equipment	1
Sand Filters	2
Groundwater Treatment	
Air Sparge Equipment	2
Recovery Well Pumps	10
Free Product Recovery Pumps	4
Soil Treatment	
Soil Vent Demister/Filters & Blowers	4
BioVent Systems	2
Soil & Groundwater Treatment	
Total Fluids & Vapor Extraction - Liquid Ring Extractors	1
Multi-Phase Deep Vacuum Unit (26" Hg)	1
<b>Cleanup Equipment &amp; Supplies</b>	
Remtech 20 and 55-gallon Spill Kits	5
Sorbent (poly and cellulose)	
Sorbent Pads	8,000
Sorbent Rolls	1,400 lf
Sorbent Socks	400 lf
Sorbent Sweeps	400 lf
Oil Dry (Chipped Clay)	3,500 lbs
Sand Bags	1,000
Straw Bales & Stakes	50
Spill Containment/Deflection Boom	
OSRO USCG River Boom (6 - 18 inch)	2,500 lf
OSRO USCG River Boom (6 - 18 inch), offsite storage	10,000 lf
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Wash Down Pumps	2
Skimmer Heads	5
Rope Mop	1
Rope - 3/8" to 1 inch	2,000 lf



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<b>Cleanup Equipment &amp; Supplies, Continued</b>	<b>Atlanta</b>
Pumps (Specialty Chemical Transfer)	
<i>Stainless, Polyethylene, Cast Iron, Aluminum Pumps</i>	
Centrifugal Pumps	
1" Explosion Proof	1
1" Self Priming Centrifugal	3
3" Self Priming Centrifugal	1
4" Self Priming Centrifugal	1
6" Self Priming Centrifugal	4
Diaphragm Pumps	
3" Aluminum, gasoline driven, Flap Diaphragm	3
2" Stainless with Teflon	1
2" Aluminum with Butyl	4
2" Poly with Wilflex	3
2" Aluminum Flap Diaphragm Sludge Pump	1
1.5" Aluminum with Buna	5
1.5" Poly with Viton	1
1" Aluminum	2
1" Poly with Wilflex	4
Submersible Sewage Pumps (1, 2, 2.5-inch)	4
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2" Trash Pump	2
3" Trash Pump	8
4" Trash Pump	2
6" Trash Pump	2
Vacuum System, Guzzler, air-air eductor flammable liquid & sludge pump	1
Hose - Specialty Chemical	
1.0 - Inch Nylon Reinforced Suction & Discharge Hose	600 lf
1.5 - Inch PVC Suction & Discharge Hose	950 lf
2.0 - Inch Butyl Suction & Discharge Hose	500 lf
2.0 - Inch XLPE Suction & Discharge Hose	350 lf
3.0 - Inch PVC Suction & Discharge Hose	800 lf
6.0 - Inch Suction Hose	300 lf
Vacuum Cleaners	
HEPA - Wet/Dry Vacs	4
HEPA - Wet/Dry Drum Vacs	2
Mercury Vacuums	1
Blowers	
Manhole Ventilators (1, 2, and 5 HP)	2
Smoke Testing Blowers (for Sewers)	1
2,000 cfm HEPA/Chemical Filter Air Handler	1
Drums & Totes	
Overpaks poly	
20-Gallon	30
85-Gallon Steel	20
95-Gallon Poly	8
HDPE 55-gallon open top and closed head	100
55-gallon steel open top and closed head	70
250-gallon Emergency Containment Totes	10
500-gallon Poly Portable Tanks	4
600-gallon Oil/Water Separator	2


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<b>Cleanup Equipment &amp; Supplies, Continued</b>	<b>Atlanta</b>
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FFFP Foam Vapor Suppressers	6
Purple K Dry Chemical Extinguishers	4
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375 cfm Trailer Mount Compressor, offsite storage	2
185 cfm Trailer Mount Compressor, offsite storage	2
75 cfm Portable Compressor	1
27.2 cfm, 12 Hp Portable Air Compressor	6
19 cfm, 9 Hp Portable Air Compressors	1
12 cfm, 5.5 Hp Portable Air Compressors	3
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30 HP, 15 KW/220/110 volt Generator	1
20 Hp, 10 KW/220/110 volt Generator	1
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5.5 HP 220/110 volt Generators	2
8 HP 220/110 volt Generator	2
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Flood Lights	10
Quartz Tripod Lights	4
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16 Ft Emergency Response Trailer	1
20 Ft Emergency Response Trailer	1
20 Ft Emergency Product Transfer Trailer	1
16 Ft Open Equipment Trailer	1
16 Ft Closed Equipment Trailer	1
16 Ft Enclosed Straw/Stake Trailer	1
16 Ft Rapid Deployment Boom & Boat Trailer	1
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Drum Repair Kits	1
Gasket Repair Kit	1
Oversize Rail Car Wrenches	2
Pipe/Transfer Line Leak Repair Kit	1
Pressurized Tank Car Repair Kit	1
Tank Car Repair Kits, Midland, Chlorine Institute A, B, & C	1
Tanker Repair Kits	1
Tote Repair Kits	1
Tank Car & Tanker Pneumatic & Hydraulic Off-Loading Connections	25
Safety Equipment	
Barricades/Flashers	8
Emergency Light Strobes	8
First Aid Kits	5
Personal Decontamination Stations	2
Safety Lines and Harnesses	4
Traffic Cones	30

<b>Cleanup Equipment &amp; Supplies, Continued</b>	<b>Atlanta</b>
Chemicals (Neutralization & Reaction)	
Activated Carbon	2,000 lbs
Alcoseal Foam	50 gal
Calcium & Sodium Hypochlorite	100 lbs
Portland Cement & Cement Kiln Dust	500 lbs
Soda Ash	1,500 lbs
Hydrochloric Acid	55 gal
HC-2000 (Bioremediation Accelerator)	2,000 gal
Sulfuric Acid	100 gal
Caustic Soda	200 lbs
HGX Mercury Decontamination Agent	20 lbs
Steam & Pressure Washers	5
Mobile Drilling and Geoprobe Rigs	2
Grout Mixing Equipment	1
Monitoring well casings and Well Head Covers	10 wells
Soil and Groundwater Sampling Probes	4 probes
Well Sandpack and Grout	10 wells
Containment & Heavy Duty Equipment	
1,600 gallon All Terrain Tankers	2
5,000 gallon Tankers, offsite storage	2
20,000 gallon Frac Tanks, offsite storage	4
Backhoes, offsite storage	3
Bobcats & All Surface Vehicles, offsite storage	6
ASV SR70 with backhoe, forklift, cribbing bucket, and grappler attach.	1
Dump Trucks, offsite storage	8
Flat Bed Trucks	2
Roll-off Boxes (20 - 40 cy), offsite storage	10
Portable Tanks 4,400 gal	2
Portable Tanks 2,500 gal	3
Portable Tanks, Bladders - 3,000 gal	5
Graders, offsite storage	1
High Lifts, offsite storage	2
Tillers	2
Track Excavators, offsite storage	2
Guzzler Hi-Rail Vacuum Truck, 3,500 gallon, 28" Hg, 5,200 cfm	1
Vacuum Trucks & All-Terrain Vac Trucks, offsite storage	4
4-wheel Drive Vehicles	4
Hand Tools	
Acetylene Cutting/Welding	1
Bolt Cutters	4
Brooms	10
Broom - Power	1
Chainsaws	6
Chop Saws	3
Circular Saws	4
Pneumatic Hole Cutting Kit	2
Rakes, Shovels, Picks	10
Saw-Z-All	4
Boats	
14 Foot Boat with 15 HP outboard motor	1
17 Foot Aluminum Boat with 40 Hp outboard motor, offsite storage	1
12 Foot Jon Boat	1

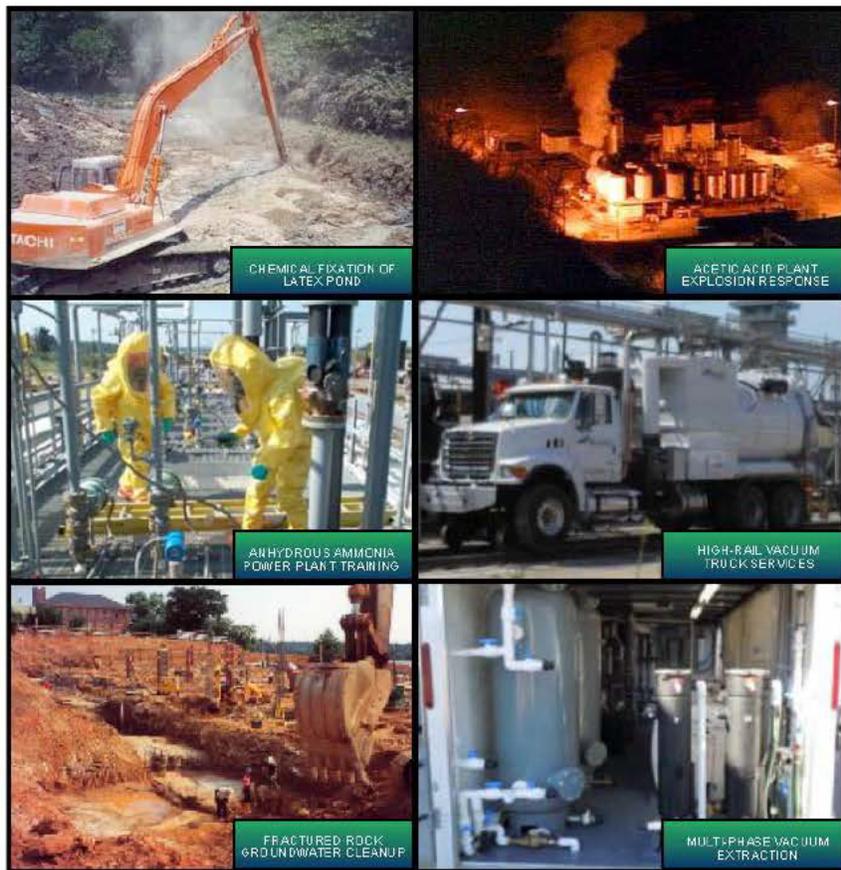


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<b>HAZMAT Computer Data Bases</b>	
Internet DSL Link to Industry MSDS Sheets	4
CDROM Maps of the US showing Rivers, Roads, Railroads, and Topography	2
Cameo/Aloha/Marplot	4
OHM-TADS System	1
Remtech In-House Haz Mat Library	1
USGS Maps, Digital, States, GA, SC	3
Computer Modeling	
Airstrip	1
Aqtesolve	1
Archie	1
BioPlume	1
Capzone	1
DOT Emergency Response Handbook - Computerized Version	1
Hydropal	1
Hyperventilate	1
Modflow	1
Oasis	1
Reactive Chemical Data Base	1
Solute	1
Well Head Protection Model (WHPA)	1



24-Hour Emergency Response  
800-377-3648



- ❖ **EMERGENCY RESPONSE & REMEDIATION CONTRACTING**
- ❖ **ENVIRONMENTAL CONSULTING & TRAINING**
- ❖ **INDUSTRIAL MAINTENANCE & VACUUM TRUCK SERVICES**
- ❖ **WASTE TRANSPORTATION & DISPOSAL**
- ❖ **BIOREMEDIATION WITH HC-2000**



Innovators in Environmental  
Remediation

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Innovators in Environmental  
Remediation

**Remtech Engineers** is a turnkey design/build environmental engineering/contracting firm offering emergency spill response, site remediation, soil contamination and groundwater cleanups, environmental consulting, industrial maintenance, vacuum truck services, and training.

Over 4,000 projects have been completed for transportation (rail, highway, intermodal, inland waterway, air), chemical, manufacturing, energy (power generation and transmission), institutional, and government clients over the past 23 years.

Remtech is one of the few emergency response and remediation companies run by Board Certified Environmental Engineers (American Academy of Environmental Engineers) and Certified Hazardous Materials Managers. This ensures peer-reviewed qualifications, experience, and proven cost-effective/state-of-the-art solutions to complex environmental problems. Remtech is a CHEMNET Contractor for CHEMTREC and maintains an A rating with the ISNetworld Safety Program.

Remtech's corporate offices are located in Atlanta (Marietta), Georgia and primary service area includes: Georgia, Alabama, South Carolina, North Carolina, Tennessee, and Florida.

Remtech was founded by Mark D. Ryckman in 1988. Mr. Ryckman possesses a B.S. in Civil Engineering and M.S. in Environmental Systems Engineering from Clemson University and a B.A. in Mathematics from DePauw University. He is a Registered Professional Engineer in seven states and a Board Certified Engineer in Water & Wastewater Engineering and Hazardous Waste Management conferred by the American Academy of Environmental Engineers.

Larry K. Seabolt, Jr. has served as Vice President of Remtech for over 18 years and possesses an engineering degree from Southern Tech in Civil & Environmental Engineering. He is a Certified Hazardous Materials Manager, and has chaired the Operations Committee of the GA DOT TIME (Traffic Incident Management Enhancement) and Cobb County Resource Council.

Remtech has developed a proprietary bioremediation biostimulation accelerator **HC-2000** that has been used for more than 11 years on over 200 sites to enhance the natural degradation processes for solvents and petroleum based compounds in soil, surface water, groundwater, railroad ballast, and other media. [HC-2000 diesel fuel biodegradation efficacy surpasses Microblaze, Fuel Buster \(F-500\), BioSolve, and many of the agents on EPA's National Contingency Plan list. HC-2000 is also less toxic to freshwater organisms than other bioremediation accelerators and dispersants.](#)

Remtech would welcome the opportunity to earn the right to become a preferred vendor for your turnkey environmental projects. Remtech is committed to completing each project in a timely, discrete, professional, and cost-effective manner.



Fractured Rock Groundwater  
Cleanup



Multiphase Vacuum  
Extraction System



BioSparge Solvent Cleanup in  
New York



Mark D. Ryckman  
Founder & CEO



Larry K. Seabolt, Jr.  
Vice President

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## Remtech Engineers

Remediation Specialists

## Service Area, Licenses & Select Clients



Remtech has completed over 4,000 projects in 22 States. Our corporate offices are located in Atlanta (Marietta), Georgia and primary service area includes: Georgia, Alabama, South Carolina, North Carolina, Tennessee, and Florida. Remtech projects have been completed in California, New Mexico, Louisiana, Mississippi, Maryland, Virginia, New York, Michigan, Ohio, Indiana, Illinois, Missouri, Iowa, Minnesota, Arkansas, and Kansas.

### CERTIFICATIONS & LICENSES

- Registered Professional Engineer in Seven States
- Board Certified Hazardous Waste Management Engineering (Academy of Environmental Engineers)
- Board Certified Water & Wastewater Engineering (Academy of Environmental Engineers)
- Level II Certified Design Profession (GSWCC, Erosion Control Engineer)
- Certified Hazardous Materials Manager
- Storage Tank Contractor, Florida
- North Carolina Remediation Contractor
- Certified CHEMNET CHEMTREC Contractor
- Licensed Water Well/Environmental Driller, SC, GA
- E-Rail Safe Certified
- Hazwoper Hazardous Waste & Emergency Response
- Hazmat First Responder & Technician
- Incident Commander
- ISNetWorld Certified Safety Program

### SELECT CLIENTS

Anheuser-Busch	FEDX Ground	Oglethorpe Power
Alchem	Georgia Building Authority	Patterson Pump
American Coach	Georgia Power	Pikes Energy
Amrep Speciality Chemicals	Georgia Tech	Safety-Kleen
ASK Chemicals	Georgia Transmission	Southern Company
Bayer Chemical	Haz-Mat One Response	Tindal Corporation
Capital Materials	J M Huber	Wamer Brothers
Caterpillar	Kemira Chemical	Whitaker Chemical
CITGO Petroleum	Kenan Advanage	UPS
Coca-Cola	Kimberly Clarke	UPS Ground
Cobb Marietta Water Authority	Kroger Southern Ice Cream	URS
Colonial Pipeline	Lockheed	Yellow Roadway Corporation
CSX	Lynx Chemical	Wamer Brothers
Dobbins Air Force Reserve	Magellan	Waste Management
Dow Chemical	Mannington Commercial	XL Insurance
Emory	Metal Container Corporation	Zep
FEDX	Norfolk Southern	

Page 2



## EMERGENCY RESPONSE

Remtech provides a 24-hour spill response network staffed by Hazwoper trained personnel. Remtech principals have responded to over 4,000 hazardous material releases, oil spills, chemical spills, mercury spills, infectious, biohazard, and biological agent releases for the chemical, manufacturing, institutional, hospitals, energy (power generation and transmission), and transportation industry since 1975. Remtech is a CHEMNET Contractor for CHEMTREC and maintains an A rating with the ISNetworld safety program.

Our Corporate Response Center is located in Atlanta, Georgia and hosts one of the largest fleets of emergency response equipment and supplies in the Southeast. Remtech minimizes risks and costs by converting uncontrolled situations into manageable remediation projects. Accident root cause determinations provide opportunities for cost-recovery and liability transfer to responsible parties.

Remtech specializes in spill response in the inland waterway system (fast currents) that requires unique response capabilities over conventional coastal port contractors. Remtech has over 4,000 feet of inland river containment boom, 60,000 gallons of containment storage, mobile treatment systems, transfer pumps, leak repair kits for railcars, tankers, vacuum trucks, tanks, intermodal containers, and other resources.

### Response Capabilities

- ◆ Train Derailments
- ◆ Tractor-Trailer Accidents
- ◆ Tanker Rollovers
- ◆ Oil Spill & Hazardous Material Response
- ◆ Intermodal Container Releases
- ◆ Chemical Transfer & High Pressure Gas Transfers
- ◆ Biohazard & Infectious Waste Cleanups
- ◆ Chemical Fire & Plant Explosion Mitigation
- ◆ Transformer Fire & Explosion Response
- ◆ Leaking Tank & Container Cleanup
- ◆ Inland Waterway & Marina Spill Cleanups
- ◆ Natural Disaster Emergency Response
- ◆ Flood Damage Emergency Response
- ◆ Reactive & Explosive Material Mitigation



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Page 3



Glacial Acetic Acid  
Explosion Response



Capping Leaking 90-ton  
Chlorine Railcar



Stabilizing Runaway Chemical  
Reaction



Chemical Tanker Rollover  
Transfer



HC-2000 Controls Odors & Degrades  
Soy Additive at Derailment Site



## Response Resources

### Response Resources

#### Personal Protective Equipment

- ◆ Level A, B, & C PPE
- ◆ Fire Proximity & Entry Suits
- ◆ Confined Space Entry Equipment Trailer
- ◆ Ventilation Blowers

#### Spill Control & Containment

- ◆ Chemical Transfer Pump Trailer
- ◆ Rapid Boom Deployment & Boat Launch Trailer
- ◆ Railcar Repair & Confined Space Entry Trailer
- ◆ Chlorop, Midland, Transload & Magnetic Leak Repair Kits
- ◆ Overpaks, Drums, Supersacks
- ◆ Frac Tanks, Pillow Tanks, All-Terrain Tankers
- ◆ Skimmers, Washdown Pumps, Oil Mops
- ◆ Sorbent Pads, Rolls & Boom
- ◆ Spill Kits
- ◆ Vapor Suppression Foam (FFFP)
- ◆ Straw Filtration Barrier Trailer

#### Cleanup Equipment

- ◆ Heavy Duty Equipment
- ◆ Mobile Multi-Phase Vacuum Extraction
- ◆ HEPA & Mercury Vacuums
- ◆ Air Purification & Filtration Equipment
- ◆ Mobile Treatment Plants
  - All-Terrain Oil/Water Separators
  - Carbon Filtration
  - Tri-Media Filters
  - Sand Filters, Diatomaceous Filters
  - Antracite Filters
  - Bag Filters
- ◆ Steam & Pressure Washers
- ◆ Vacuum Trucks, Hi-Rail Vacuum Trucks
- ◆ Air-Air Eductors for Flammable Liquid Transfer and Vacuum Extraction
- ◆ Treatment Chemicals & Agents

#### Monitoring & Instrumentation

- ◆ Environmental Drilling Equipment
- ◆ Environmental Surveillance Equipment
- ◆ Portable Testing Equipment

#### Communications/Data Basis

- ◆ GPS & Communications Equipment
- ◆ Digital HAZMAT Data Base
- ◆ Digital USGS & Aerial Maps



Cleaning Railway Wastewater Treatment Plant



Midland Kit Applied to Leaking Ammonia Railcar



Wastewater Transferred from Frac Tank to Tanker



Mobile Oil/Water Separator & Carbon Filtration System



Chemical Pump Transfer Trailer



## ENVIRONMENTAL REMEDIATION

Remtech principals have completed over 4,000 environmental cleanups since 1975. Remtech specializes in biological and physicochemical cleanup technologies ranging from enzyme enhanced biostimulation bioremediation to thermal and chemical detoxification of soil, groundwater, contaminated facilities, and hazardous waste cleanups.

Remtech can handle your project from start to finish. By integrating site remediation engineering/design, contracting, and equipment manufacturing, the layering of firms and project life cycle costs are substantially reduced.

### Turnkey Site Remediation Services

- ☉ Contaminated Soil Cleanups
- ☉ Soil & Groundwater Remediation
- ☉ Hazardous Waste Cleanups
- ☉ Hazardous Material Cleanups
- ☉ UST & AST Tank Cleanups & Closures
- ☉ Multi-Phase Vacuum Extraction
- ☉ Infectious, Toxic & Biohazard Waste Cleanups
- ☉ Brownsfield Restorations
- ☉ PCB, Mercury & Lead Abatements
- ☉ Fire & Water Damage Restoration
- ☉ Mold Remediation & Abatement
- ☉ Sludge Cleanups

### Railyard Cleanups

- ☉ High-Rail Vacuum Truck Services
- ☉ Oil/Water Separator, Trenches, and Trap Cleaning
- ☉ Switch Cleaning
- ☉ Removal & Replacement of Trackmats
- ☉ Tank & Separator Cleaning
- ☉ Chemical & Fuel/Oil Spill Cleanups
- ☉ Ballast & Pavement Cleaning
- ☉ Coal, Powder, Granular Material Removal
- ☉ AST/UST/Pipeline Cleaning
- ☉ Railroad Ballast Remediation with HC-2000

### Demolition/Dismantlement Services

- ☉ Comprehensive or Selective Demolition
- ☉ Hazardous Material Removal prior to Demolition
- ☉ Asset Recovery
- ☉ Fire Burn Residue and Runoff Cleanup
- ☉ AST/UST/Pipeline Cleaning & Removals
- ☉ Mercury, Lead, Arsenic, Lithium, Chromium Recovery
- ☉ Ballast & Pavement Cleaning



Groundwater Treatment System



Mobile Vacuum Extraction System



Flammable Microcell Pellet Cleanup



Soil & Groundwater Treatment System under Building



BioVenting System under Publications Building



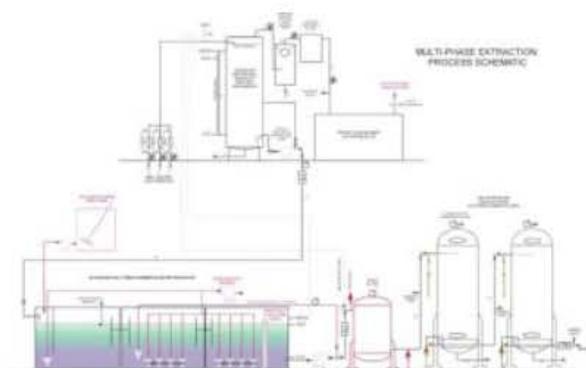
High-Rail Vacuum Truck Engine Terminal Pit Cleanup



# Multi-Phase Vacuum Extraction

## MULTI-PHASE VACUUM EXTRACTION

Remtech's mobile Multi-Phase high vacuum extraction systems produce up to 25 inches of Hg on a network of extraction wells removing contamination and vapors from soil and groundwater. Pressure injection of HC-2000 in perimeter wells with simultaneous high vacuum extraction from center wells desorbs free product from soil pores, oxygenates capillary fringe contaminants, and accelerates bioremediation of soil bound contaminants.



Multi-Phase Vacuum Extraction PID Diagram



Air-Air Eductor Vacuum Pump for Flammable Liquids and Vapors



Remtech Two-Phase Total Fluids Extraction System at Bus Facility Removing 20,000 gallons of Diesel Fuel - Rotary Claw Blower, Knock-out Tank, Mist Eliminator, Oil Water Separator, Dissolved Air Flootation, Calcium Chloride Flocculation, Sand Filtration & Granular Carbon Filtration



Remtech Two-Phase Total Fluids Extraction System connected to 17 Extraction Wells through three galleries. Knockout tank separates fuel & groundwater for subsequent treatment



Multi-Phase Vacuum Extraction Recovery Well Network



## ENVIRONMENTAL CONSULTING

### ENVIRONMENTAL CONSULTING, ASSESSMENTS & PREVENTION PLANS

Remtech specializes in real property environmental assessments, asbestos assessments, mold investigations, mercury assessments, indoor pollution investigations, and prevention & response plans. Our multi-disciplinary team of professionals possess degrees from accredited universities, with specialty certifications from the American Academy of Environmental Engineers and the Institute of Hazardous Materials Management.

Each project is assigned a working project manager who is the client contact for technical, schedule, and cost information. Quality Assurance Programs track data evaluation, design, and remediation performance. Clients can be assured that project assignments are completed according to the highest professional standards.

#### Environmental Assessments

- Environmental Phase I, II & III Assessments
- Indoor Pollution Assessments
- Noise Investigations
- Asbestos, Mold & Lead Assessments
- Mercury, Radiation, Radon Assessments
- HSRA Investigations
- Risk Based Site Closures
- Hydrology Studies
- Stormwater Monitoring
- Environmental Drilling & Sampling

#### Prevention & Response Plans

- Spill & Stormwater Prevention Plans
- Digital GPS Mapping Spill Deployment Plans
- Facility Response Plans
- Erosion Control Plans

#### Remedial Design & Management

- Soil & Groundwater Remediation
- Spill & Loss Prevention Systems
- Water & Wastewater Pollution Prevention
- Solid Waste, Landfill, Noise, Air Pollution
- Industrial Hygiene Control Systems
- Tanker & Railcar Loading & Unloading Racks
- Storm & Sanitary Sewers
- Oil/Water Separators
- Building & Construction Permits
- Construction Supervision

#### Expert Witness

- Root Cause & Forensic Investigations
- Accident Reconstruction
- Expert Testimony



100-Acre Chemical Plant  
Assessment & Remediation



Forensic Investigation Clears  
LTL Carrier of Chemical Fire



Metal Thickness Testing on  
Collapsed UST



Tanker Loading Rack Design with  
Spill Containment



Ethanol Railcar Unloading  
Rack Design with Spill  
Containment



## ENVIRONMENTAL TRAINING

### HEALTH & SAFETY TRAINING

Remtech offers health & safety training that meets OSHA, EPA, DOT, RCRA, and other regulatory requirements. Our training programs are based on over 4,000 emergency responses and site remediations performed since 1975. Hands-on general or site/facility specific training programs are available to meet the needs of each customer. Classes may be conducted at Remtech or your facility.

Remtech offers a comprehensive list of health & safety training courses. For more information to schedule classes e-mail us at [training@remtech-eng.com](mailto:training@remtech-eng.com).

#### EPA Courses

- RCRA initial and advanced training

#### DOT Courses

- Hazardous Materials Transportation Safety
- Transportation Safety Refresher Course
- Advanced Hazardous Materials Transportation Safety

#### OSHA Courses

- Hazardous Waste & Emergency Response
- First Responder Operations & Technician
- Incident Command
- 8-hour Refresher
- Process Safety Management Training

#### OTHER Courses

- Stormwater Pollution Prevention Training
- Spill Response Equipment Deployment Training



Training at Power Plant NOX Treatment Facility



Training at Compressed Gas Facility



Anhydrous Ammonia Unloading Training



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website: [www.remtech-eng.com](http://www.remtech-eng.com)

## INDUSTRIAL CLEANING

Remtech offers a complete array of industrial maintenance services including tank, line, pipeline cleaning, pressure washing & steam cleaning, facility decontamination & vacuum truck services. Operational interruptions due to system failure, clogging, capacity limitations, product changeout, and environmental & safety concerns are minimized.

### Industrial Cleaning

- Process, Pipeline & Sewer Cleaning
- Pit, Pond & Lagoon Cleaning or Closure
- AST/UST Tank Cleaning or Closure
- Facility Decontamination
- Fire Cleanups
- Duct Cleaning
- Product Transfers
- Lift Station and Oil Separator Cleaning
- Stormwater Retention Facility Cleaning
- Power Plant Cleanups

### Railroad Cleaning Services

- High-Rail Vacuum Truck Services
- Railyard Track Mat Removal & Replacement
- Track Pan & Switch Cleaning
- Tank & Separator Cleaning
- Chemical & Fuel/Oil Spill Cleanups
- Ballast & Pavement Cleaning
- Coal, Powder, Granular Material Removal
- AST/UST/Pipeline Cleaning
- Railroad Ballast Remediation with HC-2000



Chemical Tank Cleaning



Steam Cleaning 250 MW  
Transformer after Fire



Vacuum Trucks Cleaning  
Railyard Treatment Plant



Lube Oil Rail Siding Prior to  
Remtech HC-2000 Treatment



Lube Oil Rail Siding after  
4 Months of HC-2000 Treatment



Hi-Rail Pit Cleaning at Engine  
Terminal



Trackmat Removal & Replacement



## VACUUM TRUCK & HIGH-RAIL SERVICES

Remtech's Guzzler vacuum trucks with high-rail capabilities can be mobilized to remote areas only accessible by rail. Wet or dry materials, (including railroad ballast) can be removed/transferred rapidly without fugitive dust emissions with high efficiency bag house filtration. Vacuum rates up to 5,400 cfm @ 28"Hg (3,400 gallons) transfers, liquids, slurries, solids, powders and contaminants over long suction distances

Dry product transfers/recovery with remote cyclones minimizes double handling of granular material such as from silos to railcars, piles to hopper cars or hopper cars to elevators. Continuous vacuum truck operation with vacuum boxes or cyclones minimizes transport costs while using less expensive containers.

Remtech's vacuum services includes hydro or pneumatic excavation using high-velocity air or high pressure water for deep excavations that minimize damage while locating underground utilities.

### Industrial Maintenance & Operations

- railroad & yard track cleaning
- ballast & switch cleaning
- bulk transfer facility cleanups & transfers
- granular & powdered material transloading
- pipeline & pipeline interface cleaning
- storm & sanitary sewer cleaning
- tank cleaning & transfers
- tanker & railcar cleaning
- sludge & slurry removal
- pit & lagoon cleaning
- clarifier, sump & digester cleanouts
- oil/water separator cleanouts
- sand, grit, and abrasives removal

### Environmental Applications

- environmental cleanups
- emergency response to spills
- emergency response to derailments
- total fluids/multi-phase vacuum extraction

### Geotechnical Applications

- hydro/pneumatic excavation

Special applications include high vacuum total fluids extraction integrated with Remtech's proprietary HC-2000 bio-stimulation native microbial accelerator/biosurfactant to remove contaminants rapidly from the environment and accelerate natural attenuation.



High-Rail Cleaning Locomotive Maintenance Facility



Hi-Rail Cleaning Sand Pit Sumps



Dewatering Sludges on Sandbed



Pipeline Purging prior to Testing



Track Cleaning & Treatment with HC-2000



## WASTE TRANSPORTATION & DISPOSAL

### Waste Disposal, Recycling & Minimization

Let Remtech manage your waste streams from cradle-to-grave. Each waste stream is screened for waste minimization, recycling, treatment or disposal to minimize your liabilities and costs. Waste is transported and disposed of at approved facilities.

**Waste Reduction/Minimization** - waste segregation (separation of hazardous & non-hazardous wastes) dewatering, & phase separation

**Recycle/Reuse** - fuels, oils, solvents, metals, batteries, plastics, paper

**Special Wastes** - bulk solids or liquid solidification at Subtitle D Landfills, fixed liquid pre-treatment facilities

**Hazardous Waste** - RCRA hazardous wastes, toxic wastes, hazardous materials disposed of at Hazardous Waste Landfills & Incinerators

**Reactive & Explosive Materials**

**Infectious & Medical Wastes**

**Controlled & Clandestine Drug Lab Decon & Disposal**

**Labpacks** - Characterization & packaging of laboratory and medical facility chemicals

#### Onsite Treatment

- Custom design/build treatment systems
- Oil/water separators
- Solidification/chemical fixation
- Sludge dewatering systems
- Neutralization systems
- Chemical oxidization/reduction
- Biological Treatment
- Physical/Chemical Treatment
- Thermal Treatment



Wastewater Acid Neutralization System



Waste Pickup for Disposal



Contaminated Soil Excavation



Vacuum Trucks Cleaning  
Railyard Treatment Plant



Tar Residues Solidified &  
Loaded in Rolloff



Supersacks Loaded on Flatbed  
with Crane



# Remtech Engineers

Remediation Specialists

## BIOREMEDIATION WITH HC-2000

### HC-2000 Biostimulation & BioSurfactant Applications in Environmental Cleanups

HC-2000 is a proprietary enzyme bio-remediation bio-stimulation accelerator/bio-surfactant that cleans, desorbs, and degrades fuels, oils, lubricants, and chlorinated and non-chlorinated solvents from soil, groundwater, surface water, and other matrices. HC-2000 has been approved by Georgia & Florida for soil and groundwater cleanups. Since HC-2000 contains non-toxic food quality ingredients, other states and regulatory authorities typically approve HC-2000 on a case-by-case basis.

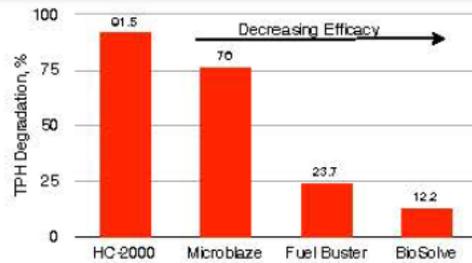
HC-2000 diesel fuel biodegradation efficacy surpasses Microblaze, Fuel Buster (F-500), BioSolve, and many of the agents on EPA's National Contingency Plan list. HC-2000 is also less toxic to freshwater organisms than other bioremediation accelerators and dispersants.

#### HC-2000 Bioremediation Technology

- ☉ Pavement Cleaning
- ☉ Surfacewater & Groundwater Remediation
- ☉ Soil & Ballast Remediation
- ☉ Combined with Multi-phase Extraction
- ☉ Solids & Sludge Breakup
- ☉ Forrest Canopy & Vegetation Cleaning
- ☉ Enhanced Wastewater Treatment
- ☉ Odor Control
- ☉ Oil Sheen Removal

#### Technical Publications Available

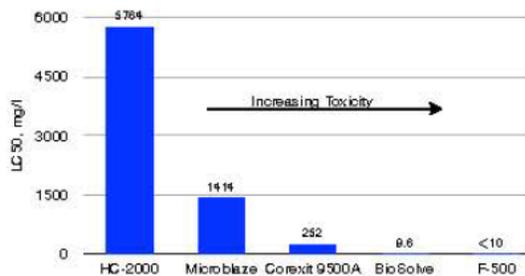
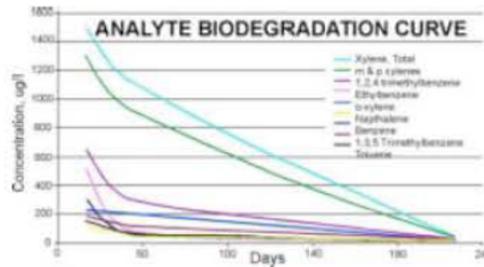
- ☉ *HC-2000 Biostimulation & BioSurfactant Applications on Environmental Cleanups*
- ☉ *HC-2000 Bioremediation of Petroleum Hydrocarbon Spills on Railroad Ballast*
- ☉ *HC-2000 Petroleum Hydrocarbon Efficacy & Aquatic Toxicity Testing in Freshwater & Soil Environments*
- ☉ *HC-2000 Range Finding Aquatic Toxicities*



4-Day Bench-Scale Soil Slurry Diesel (TPH) Degradation Product Comparisons, (Fuel Buster - 7 days).



HC-2000 BioSparge Trailer in New York



96-HR, LC50 AQUATIC TOXICITIES (SILVERSIDE, MENIDIA BERYLLINA) PRODUCT COMPARISONS



Main-Line Track Treated with HC-2000



HC-2000 Biofence Treatment of Gasoline Contaminated Wetland

**Remtech Engineers™**  
 Remediation Specialists  
 200 North Cobb Parkway  
 Suite 208  
 Marietta, Georgia 30062  
 Phone: 770-427-7766 or 800-377-3648  
 website: [www.remtech-eng.com](http://www.remtech-eng.com)

**GSA NUMBER 06-0109****GENERAL SERVICES AGREEMENT**

This General Services Agreement (this "GSA") dated this 16th day of June, 2006, sets forth the terms and conditions under which Oglethorpe Power Corporation (An Electric Membership Corporation) ("**Oglethorpe**"), may from time to time hire, use and pay for the services of **Remtech** (the "**Contractor**"). This GSA is hereby effective and the parties intend to incorporate one or more Task Releases (as hereinafter defined) as the need arises. The terms and conditions of this GSA will apply to each Task Release issued pursuant hereto. In the event of any conflict between this GSA and a Task Release, the terms and conditions of the Task Release shall control and prevail over the terms and conditions of this GSA.

**1. PARTIES TO THIS GSA****1.1 The parties to this GSA include the following:**

"Oglethorpe":

Oglethorpe Power Corporation  
2100 E. Exchange Place  
Tucker, Georgia 30084

Attention: Cristy Bennett, GSA Contract Administration

Phone: (770) 270-7734

Fax: (770) 270-7785

Email: [mpcntr11@gatrans.com](mailto:mpcntr11@gatrans.com)

"Contractor":

Remtech  
200 North Cobb Parkway, Suite 208  
Marietta, GA 30062

Attention: Mark D. Ryckman

Phone: 770 427-7766

Fax: 770 427-7001

Email: [mryckman@mindspring.com](mailto:mryckman@mindspring.com)

1.2 Each party represents to the other that (i) it has the power and authority to execute, deliver and perform this GSA and any Task Release and (ii) the person executing this GSA on behalf of it is an officer authorized to bind the party with respect to its obligations hereunder.

Each party also agrees that any person executing any Task Release on behalf of it shall be authorized to bind the party with respect to its obligations thereunder.

## **2. DEFINITIONS**

“Computer Tapes” has the meaning set forth in Paragraph 4.10.

“Confidential Information” means any information, document or thing concerning Oglethorpe or any Owner which (i) does or may constitute a trade secret under the Georgia Trade Secrets Act of 1990; (ii) is not generally known to the public; or (iii) is marked or labeled as “Confidential” by Oglethorpe.

Confidential Information may include, but is not limited to, present and future business plans, formulae, processes, models, designs, photographs, plans, drawings, schematics, sketches, samples, equipment, equipment performance reports, customer lists, pricing information, studies, reports, findings, inventions, ideas, specifications, parts lists, technical data, data bases, computer programs, except those computer programs proprietary to Contractor, flow charts, algorithms and other business and technical information which are used for purposes of any Project.

“Contractor” has the meaning set forth in the Introduction paragraph.

“GPC” means Georgia Power Company.

“GSA” has the meaning set forth in the Introduction paragraph.

“Information” has the meaning set forth in Paragraph 9.1.

“Intended Third Party Beneficiaries” has the meaning set forth in Paragraph 23.1.

“MEAG” means the Municipal Electric Authority of Georgia, which is a “Participant” under the Plant Wansley CC Projects Operating Agreement, dated as of June 1, 2002, by and among GPC, Oglethorpe, as successor to Chattahoochee EMC, MEAG and Southern Power.

“Oglethorpe” has the meaning set forth in the Introduction paragraph.

“Owner” has the meaning set forth in Paragraph 3.1.

“Project” means the project or task set forth in any Task Release pursuant to which the Contractor is providing services.

“Southern Power” means Southern Power Company, which is a “Participant” under the Plant Wansley CC Projects Operating Agreement, dated as of June 1, 2002, by and among Georgia Power Company, Oglethorpe, as successor to Chattahoochee EMC, MEAG and Southern Power.

“Subcontractor” means any subcontractor, manufacturer, vendor, supplier, materialman or similar entity who contracts with the Contractor to perform any of the services under, or provide any of the supplies or materials required in connection with, this GSA or any Task Release.

“Task Release” means a contract between Oglethorpe and the Contractor issued pursuant to this GSA that describes the services to be provided by the Contractor, including, without limitation, the dates when and site where the services are to be performed and the approved hourly rates and maximum cost of services.

### **3. WORKING RELATIONSHIP**

3.1 Under each Task Release, the Contractor may perform services at one or more of the following: (i) a facility wholly-owned and operated by Oglethorpe; (ii) a facility owned by one or more entities other than Oglethorpe, such as Smarr EMC, and operated by Oglethorpe; and (iii) a facility owned by Oglethorpe and one or more co-owners, such as GPC, and operated by Oglethorpe, acting on behalf of itself and as agent for the other co-owners. As used herein, the term “Owner” means Smarr EMC or one or more other entities that are owners of such facility to the extent that the Contractor performs services at any facility described in (ii) above, and Oglethorpe and all such co-owners of such facility to the extent the Contractor performs services at any facility described in (iii) above.

3.2 The Contractor will function in cooperation with and subject to the review and approval of Oglethorpe. The Contractor will consult with Oglethorpe before finalizing recommendations or taking action at Project milestones or other key decision points.

3.3 The Contractor shall ensure that all personnel hired by the Contractor to perform services for Oglethorpe or any Owner pursuant to this GSA and any Task Release are well qualified and have sufficient training and experience to perform the services required in a competent and efficient manner.

3.4 The Contractor shall not assign to any Project any entity or person that (i) is a competitor with Oglethorpe; (ii) has interests adverse to Oglethorpe, such as, for example, an entity or person that Oglethorpe may have discharged or terminated and is not eligible for rehire or for future contracts; (iii) opposed Oglethorpe or any of its affiliated electric distribution systems in a judicial or arbitration proceeding; or (iv) is objectionable or unacceptable to Oglethorpe for any reason whatsoever (except for reasons prohibited by equal employment opportunity or other relevant laws).

3.5 Oglethorpe shall have the right, at its sole discretion, to demand and require the Contractor to remove any employee or Subcontractor working for the Contractor on the Project and to replace such employee or Subcontractor without cost or liability to Oglethorpe or any Owner.

3.6 For purposes of safety and otherwise, the Contractor must ensure that its employees, agents, representatives and Subcontractors are able to communicate fluently and clearly with Oglethorpe in the English language. The Contractor must station at least one supervisory-level

person capable of communicating with Oglethorpe in English at each location or site where, and at all times when, any services are performed pursuant to this GSA and any Task Release. The Contractor must employ at least one supervisory-level person capable of communicating fluently and clearly, in any and all necessary languages, with the Contractor's employees, agents, representatives and Subcontractors. This supervisory-level person must be stationed at and assigned to the location(s) or site(s) where, and at all times when, any and all services are performed.

3.7 The Contractor shall maintain strict discipline among all personnel employed at any Project site, and no person under the influence of drugs or alcohol shall be allowed on the property of Oglethorpe or any Owner, nor shall any person employed on any Project site have in his or her possession or use any drugs, alcohol or firearms. Unprofessional conduct, including but not limited to horseplay, wrestling, and fighting, shall not be permitted or allowed.

3.8 The Contractor shall ensure that any and all electronic devices, computers, software, hardware, equipment and other similar and related items that are utilized by the Contractor, or any entity or person under the Contractor's supervision or control, do not harm, or allow harm, to Oglethorpe's or any Owner's computers, systems, networks, and technology. The Contractor shall take any and all measures possible to protect Oglethorpe's or any Owner's computers, systems, networks, and technology from viruses and other malicious codes.

#### **4. CONFIDENTIAL INFORMATION**

4.1 The Contractor may learn Confidential Information necessary for the Contractor to perform its services under this GSA and any Task Release. Confidential Information shall remain protected under this Section 4 when and as incorporated into information, data, notes or analyses.

4.2 Information shall be deemed not to be Confidential Information where: (i) it is a matter of public knowledge at the time of its disclosure pursuant to the terms of this Section 4 or is thereafter published in or otherwise ascertainable from any source available to the public without breach of this Section 4; (ii) it constitutes information which is obtained from a third party (who or which is not an affiliate of Oglethorpe or any Owner) other than by or as a result of unauthorized disclosure; or (iii) prior to the time of the disclosure it had been independently developed by the Contractor or its affiliates not utilizing improper means.

4.3 The Contractor agrees that any Confidential Information (unless it has ceased to be Confidential Information under the terms of this Section 4) which has been or will be disclosed directly or indirectly to it by or on behalf of Oglethorpe shall, indefinitely in the case of trade secrets, and for a period of five (5) years after termination of this GSA or any Task Release with respect to which the Confidential Information was provided, in the case of Confidential Information which is not a trade secret, (i) not be disclosed by it to any other person who is not an employee, officer, director, advisor, lender, representative, affiliate or Subcontractor of the Contractor; (ii) be disclosed only to the Contractor's employees, officers, directors, advisors, lenders, representatives, affiliates and Subcontractors who have a need to know and agree to maintain the confidentiality of such Confidential Information in accordance with the terms

hereof, and Oglethorpe from time to time may require the Contractor to cause such employees, officers, directors, advisors, lenders, representatives, affiliates and Subcontractors to execute a confidentiality acknowledgement provided by Oglethorpe; (iii) be maintained by it in confidence in a manner so as to ensure that it will not be viewed or taken by any unauthorized person or further disclosed in a manner not authorized hereby; and (iv) not be used except for the limited purposes expressly given herein.

4.4 Notwithstanding the preceding, Confidential Information may be disclosed to any governmental, judicial or regulatory authority requiring such Confidential Information, provided that: (i) such Confidential Information is submitted under applicable provisions, if any, for confidential treatment by such governmental, judicial or regulatory authority; and (ii) prior to such disclosure, Oglethorpe is given notice of the disclosure requirement so that it may take whatever action it deems appropriate, including intervention in any proceeding and the seeking of an injunction to prohibit such disclosure; and (iii) the Contractor shall endeavor to protect the confidentiality of any Confidential Information to the extent reasonable under the circumstances and use its good faith efforts to prevent the further disclosure of any Confidential Information provided to any government judicial or regulatory authority.

4.5 No provision of Section 4 shall be deemed waived and no breach shall be deemed excused unless such waiver or consent shall be in writing and signed by a duly authorized representative of Oglethorpe expressly waiving such provision or excusing such breach. No such consent to, or waiver of a breach hereof, whether express or implied, shall constitute a consent to, waiver of, or excuse for any subsequent or different breach.

4.6 Except as expressly provided herein, the rights of Oglethorpe or any Owner hereunder are in addition to and not in lieu of Oglethorpe's or any Owner's rights under Georgia law, including but not limited to the Georgia Trade Secrets Act of 1990. Further, nothing contained herein shall be construed as a waiver on the part of Oglethorpe or any Owner of any privilege or objection of any kind to the disclosure or use of Confidential Information for any purpose other than in connection with this Project.

4.7 In the event of a breach of any part of this Section 4, Oglethorpe or any Owner will not have an adequate remedy at law and accordingly shall, in addition to any other available legal or equitable remedies, be entitled to an injunction against such breach without any requirement to post a bond as a condition of such relief.

4.8 The Contractor shall be responsible for any breach hereof by its employees, officers, directors, advisors, lenders, representatives, affiliates or Subcontractors and shall hold harmless and indemnify Oglethorpe and any Owner from any damages caused by any unauthorized disclosure by any such person or entity.

4.9 In the event any provision of this Section 4 shall be found to be illegal or unenforceable, then, notwithstanding such illegality or unenforceability, this Section 4 shall continue in full force and effect and there shall be substituted for such illegal or unenforceable provision a like but legal and enforceable provision which most clearly carries into effect the intention of the original provision. In the event a like but legal and enforceable provision cannot be substituted,

the illegal or unenforceable provision shall be deemed to be deleted and the remaining provisions of this Section 4 shall continue in full force and effect.

4.10 Upon the request of Oglethorpe, the Contractor shall return all written Confidential Information provided by Oglethorpe and shall not retain any copies of such written Confidential Information. In the event of such request, all documents, analyses, compilations, studies or other materials prepared by the Contractor or its Subcontractors that contain or reflect Confidential Information (other than computer archival and backup tapes or archival and backup files; collectively, "**Computer Tapes**") shall be destroyed and no copy thereof shall be retained (such destruction to be confirmed in writing by a duly authorized officer of the Contractor). Computer Tapes shall be kept confidential in accordance with the terms hereof.

4.11 The terms and conditions of this GSA and any Task Release are confidential, and the Contractor may not disclose any of the terms and conditions hereof or thereof to any third party except according to the terms of Paragraph 4.3.

## **5. COMPENSATION AND BILLINGS**

5.1 The Contractor's compensation shall be negotiated, agreed upon and documented at the time individual Task Releases are entered into by Oglethorpe and the Contractor.

5.2 Oglethorpe shall pay all correct and properly submitted invoices within thirty (30) days from their date of receipt at Oglethorpe's offices. Oglethorpe agrees to pay any undisputed portion of any disputed invoice.

5.3 As a condition precedent to final payment, whether upon completion of all services or upon termination of this GSA or any Task Release, the Contractor shall (1) perform and engage in a formal checkout process with Oglethorpe for purposes of completing all forms, submitting documentation, and providing Oglethorpe any and all other information, items or things required by this GSA or any Task Release, and (2) return all of Oglethorpe's or any Owner's property, including, but not limited to, picture identification cards and access cards, to Oglethorpe.

## **6. TERMINATION BY OGLETHORPE**

6.1 Oglethorpe reserves the right to terminate this GSA or any Task Release at any time upon giving notice in writing to the Contractor. In the event of termination, Oglethorpe shall pay to the Contractor all compensation earned and, where applicable, reimbursable expenses incurred, up to the effective date of termination.

6.2 Within three (3) business days of such termination, and pursuant to Paragraph 5.3, above, the Contractor shall produce, submit and deliver to Oglethorpe all documents, material, data and information gathered or developed for the Project, including all of the items identified in Paragraphs 9.1, 9.2, and 9.3, below. Under no circumstances shall the Contractor assert any lien or other claim over or relating to any such documents, material, data and information.

6.3 Oglethorpe may, without cause, order the Contractor in writing to suspend, delay or interrupt the work or services covered by the GSA or any Task Release, in whole or in part, for such period of time as Oglethorpe may determine.

## **7. INDEPENDENT CONTRACTOR**

7.1 The Contractor and its employees shall perform as an independent contractor and not as employees of Oglethorpe or any Owner. The Contractor retains sole and exclusive liability for all contributions, taxes or payments required to be made on account of the Contractor's employees under federal or state income tax laws, unemployment compensation acts, social security acts, and all other legislation requiring employer contributions or withholdings.

## **8. RESPONSIBILITY FOR SERVICES**

8.1 In the performance of this GSA and any Task Release, the Contractor shall consistently render its best efforts and shall exercise that degree of skill and care according to the highest industry standards for the Contractor's industry.

8.2 If services performed by the Contractor fail to meet the standards set forth in this Section 8, or any other applicable standards, Oglethorpe may elect to have the Contractor re-perform or cause to be re-performed, at no cost to Oglethorpe, any of the services which fail to meet said standards where: (i) such failure appears during the performance of the Contractor's services or within one (1) year from the date of completion of the Contractor's services, and (ii) Oglethorpe notifies the Contractor of any such failure within sixty (60) days of the time that the failure becomes apparent. This Paragraph 8.2 shall in no way be interpreted to limit the right of Oglethorpe or any Owner to pursue and obtain any and all other available remedies against the Contractor, whether at law or in equity.

8.3 Oglethorpe acknowledges that the Contractor shall be entitled to rely on the accuracy and currency of information supplied by Oglethorpe or by any of Oglethorpe's other contractors or consultants, or available from generally accepted reputable sources.

## **9. OWNERSHIP OF WORK PRODUCT**

9.1 The reports, recommendations, specifications, drawings, technical data, sketches, computer software, and all other information developed by the Contractor in connection with its performance under this GSA or any Task Release (the "**Information**") shall be the property of Oglethorpe or any Owner, as the case may be. In entering into this GSA or any Task Release, the Contractor hereby transfers to Oglethorpe or any Owner, as the case may be, all right, title, and interest, including the copyright, in and to the Information. Unless stated otherwise within a Task Release, the Contractor agrees that this GSA and any Task Release transfers such rights.

9.2 The reports, recommendations, specification, drawings, technical data, sketches, computer software, and all other information developed by equipment vendors or other third parties in connection with this GSA and any Task Release shall be the property of Oglethorpe or

any Owner, as the case may be. This provision shall not act to transfer rights of owners of standard software or specification packages for which copyright is retained by the developer.

9.3 All original technical data, evaluations, reports and other work product of the Contractor shall be delivered to Oglethorpe upon the completion or termination of services under each Task Release, pursuant to Paragraph 6.2, above. The Contractor may retain one (1) copy of all documents produced by the Contractor for its permanent file.

#### **10. ACCOUNTING AND RECORDS**

10.1 Where the Contractor's compensation includes reimbursement for any expenses, the Contractor will maintain a system of accounting and record keeping which is compatible with Oglethorpe's established system of accounts. Further, the Contractor will allow inspection of necessary supporting receipts and documentation for audit purposes for a period of five (5) years after completion of services under this GSA and any Task Release. Oglethorpe's audit rights shall not extend to the characterization of any lump sums, unit rates or fixed percentage, other than to verify such costs are properly chargeable to Oglethorpe.

#### **11. COMPLIANCE WITH LAWS**

11.1 The Contractor shall comply with all federal, state and local laws, regulations, ordinances, and other legal mandates applicable to the performance of its services under this GSA and any Task Release, including, but not limited to, laws governing health, safety, security, the protection or preservation of the environment, and occupational licensing.

11.2 The Contractor shall comply, and shall cause all Subcontractors to comply, with all security requirements which may be provided to the Contractor by Oglethorpe as such requirements may be amended by Oglethorpe from time to time, including without limitation background checks of any employees of the Contractor or its Subcontractors, requirements regarding proper identification of employees of the Contractor and its Subcontractors, limitations on access to portions of Oglethorpe's or its affiliates' premises or any Owner's premises, and limitations on the time when employees of the Contractor or its Subcontractors may be on such premises.

#### **12. DEBARMENT & SUSPENSION AND KICKBACKS UNDER FEDERAL LAW**

12.1 Federal regulations prohibit Oglethorpe from knowingly purchasing goods or services from persons who are debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participating in transactions with the Federal Government or transactions with participants in programs funded in whole or in part by Federal grants, loans or loan guarantees. To comply with the obligations under these regulations, Oglethorpe has solicited from the Contractor a signed certification in the form shown on Exhibit A, which is affixed to and by this reference made a part of this GSA. By signing this GSA, the Contractor represents and promises that the Contractor (i) has read and understands Exhibit A, both the certification and the instructions provided therein, (ii) will sign and deliver additional counterparts of such certification whenever requested by Oglethorpe, and (iii) will perform all of

the requirements of a "Lower Tier Participant" as set forth in such certification and instructions as performance covenants included and made a part of all Task Releases.

12.2 The Contractor and all Subcontractors and all others providing any of the services on any Project for Oglethorpe shall not, by force, intimidation, or threat of procuring dismissal from employment, or by any other manner whatsoever, induce any person employed in the Project to give up any part of the compensation to which such person is entitled under his contract. The Contractor and all Subcontractors shall comply with Title 18 U.S. Code, Chapter 41, § 874, which prohibits kick-backs from public works employees under penalties of law.

### **13. LOBBYING**

13.1 Federal regulations (i) prohibit Oglethorpe from using Federal appropriated funds to pay any person for influencing or attempting to influence certain Federal officers or agents in connection with the making of a Federal loan and (ii) require Oglethorpe to include the lobbying certification set forth in Appendix A to 7 C.F.R. Part 3018 in all of its contracts under the Federal loan exceeding \$100,000. To comply with its obligations under these regulations, Oglethorpe has solicited from the Contractor a signed certification in the form shown on Exhibit B, which is affixed to and by this reference made a part of this GSA. By signing this GSA, the Contractor represents and agrees that the Contractor (i) has read and understood Exhibit B; (ii) will sign and deliver additional counterparts of such certification whenever requested by Oglethorpe; and (iii) will perform all of the requirements set forth in the certification.

### **14. BUY-AMERICAN**

14.1 The Contractor shall use or furnish or cause to be used or furnished only unmanufactured articles, materials and supplies which have been mined or produced in the United States or any eligible country, and only manufactured articles, materials and supplies which have been manufactured in the United States or any eligible country substantially all from articles, materials and supplies mined, produced or manufactured, as the case may be, in the United States or any eligible country, except to the extent that compliance with the second paragraph of the Rural Electrification Act of 1938, being Title IV of the Work Relief and Public Works Appropriation Act of 1938 (Public Resolution No. 122, 75<sup>th</sup> Congress, approved June 21, 1938) has been waived by the Administrator of the Rural Utilities Service ("RUS"). For purposes of this Section, an "eligible country" is any country that applies with respect to the United States an agreement ensuring reciprocal access for United States products and services and United States suppliers to the markets of that country, as determined by the United States Trade Representative. The Contractor shall provide to Oglethorpe such information, documents, and certificates as may be requested by Oglethorpe or the Administrator of the RUS from time to time with respect to any articles, materials or supplies used in connection with any Project.

### **15. EQUAL EMPLOYMENT OPPORTUNITY**

During the performance of this GSA and any Task Releases:

15.1 The Contractor will not discriminate against any worker, employee or applicant for employment because of race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap. The Contractor will take affirmation action to ensure that applicants are employed, and that workers are treated during employment, without regard to their race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap. Such action shall include, but not be limited to, the following: employment; upgrading; demotion; transfer; recruitment; recruitment advertising; layoff; termination; rates of pay or other forms of compensation; and, selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by Oglethorpe's representative hereinafter named, setting forth the provisions of this nondiscrimination clause.

15.2 The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, citizenship status, veteran status, or handicap.

15.3 The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by Oglethorpe's representative, advising the labor union or workers' representative of the Contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

15.4 The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

15.5 The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders pursuant thereto, and will permit access to his books, records, and accounts by Oglethorpe's representative and governmental regulatory authorities such as the U.S. Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

15.6 In the event of the Contractor's noncompliance with the nondiscrimination clauses of this GSA or with any of such rules, regulations, or orders of the Secretary of Labor, this GSA or any Task Release may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

15.7 The Contractor will include the provisions of Paragraphs 15.1 through 15.6 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary

of Labor as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

#### **16. CONTINGENCY FEES**

16.1 The Contractor represents that it has not employed and shall not employ any person other than its own principals and employees to solicit this GSA or any Task Release or any contract with Oglethorpe, and that it has not and shall not pay any person other than its own principals and employees any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this GSA, any Task Release or any other contract with Oglethorpe.

#### **17. SUBCONTRACTORS**

17.1 The Contractor shall manage all work and services performed under this GSA and any Task Release. Upon Oglethorpe's written consent, the Contractor may subcontract any portion of the services to be provided under any Task Release. In such event, the right and obligations of the Contractor and Oglethorpe will not be diminished.

17.2 All of the Contractor's Subcontractors shall be directly responsible to the Contractor and shall be under the Contractor's direct supervision. The Contractor shall be as fully responsible to Oglethorpe and any Owner for the acts and omissions of its Subcontractors and of persons either directly or indirectly employed by them in the performance of services under this GSA and any Task Release as the Contractor is for the acts and omissions of persons it directly employs. Nothing contained in this GSA or in any Task Release shall create any contractual relationship between any Subcontractor and Oglethorpe or any Owner.

17.3 If the Contractor utilizes any Subcontractor with respect to this GSA and any Task Release, the Contractor shall require the Subcontractor to comply with all terms and conditions of this GSA applicable to the Contractor and any applicable Task Release, including, but not limited to, the requirements with respect to the types and limits of insurance coverage set forth in Section 18. With respect to each Subcontractor, the Contractor shall obtain and maintain in its records a certificate of insurance from each insurer of the Subcontractor, and, upon the request of Oglethorpe, the Contractor shall furnish copies of such certificates of insurance to Oglethorpe. Upon the request of Oglethorpe, the Contractor shall cause a Subcontractor to name Oglethorpe and any Owner as Additional Insureds under the Automobile Liability and Commercial General Liability policies required to be maintained by such Subcontractor.

17.4 If a Subcontractor performs services on a Project, the Contractor shall promptly pay such Subcontractor the amounts due to such Subcontractor in respect of such services. Without limiting the generality of the indemnification provided in Section 19, the Contractor shall indemnify and defend Oglethorpe and any Owner from and against any lien or claim filed or asserted against the property of Oglethorpe or any Owner on account of any services or materials

provided by any Subcontractor. The Contractor shall promptly remove or cause to be removed all claims and liens filed against Oglethorpe's or any Owner's property by any Subcontractor.

## **18. INSURANCE**

18.1 The Contractor, at its expense, shall maintain in effect, without interruption, policies of insurance providing the type and limits of coverage set forth on Schedule 1 attached hereto and complying with the other requirements of this Section 18. The Contractor shall cause each of the insurance policies set forth on Schedule 1 to contain a provision under which the insurer shall provide Oglethorpe written notice at the address specified in Paragraph 1.1 (or any other address Oglethorpe may request in writing) at least thirty (30) days prior to the effective date of cancellation, nonrenewal or any change in the limits or type of coverage in any such policy.

18.2 For each of the Automobile Liability and Commercial General Liability policies identified on Schedule 1, the Contractor shall cause its insurer for such policy to issue an endorsement to the policy to add Oglethorpe and each Owner as an Additional Insured on such policy with respect to claims, losses, damages, liabilities, and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations under this GSA or any Task Release; provided, however, that each Owner will be an Additional Insured under such policies only to the extent of claims, losses, damages, liabilities and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations with respect to a facility at which any such Owner has an ownership interest. Such insurance policies shall provide cross-liability coverage.

18.3 On or before the date this GSA becomes effective, the Contractor shall provide, or cause to be provided, to Oglethorpe a certificate of insurance from its insurance agent evidencing that the insurance policies in the types and in the amounts set forth on Schedule 1 are in full force and effect and indicating the policy periods for such policies. In addition, the certificate of insurance must include the following statement:

Oglethorpe Power Corporation, Smarr EMC and Georgia Power Company (to the extent of its ownership in the Rocky Mountain Hydroelectric Plant) are each an Additional Insured under the Automobile Liability and Commercial General Liability policies, to the extent required by the General Services Agreement between the Insured and Oglethorpe Power Corporation.

The Contractor shall provide, or cause to be provided, additional certificates of insurance to Oglethorpe each time such policies are renewed or replaced or any change is made in the limits or type of coverage provided under the policies and at such other times as Oglethorpe may request, including, without limitation, as required by Paragraph 18.6. Upon the request of Oglethorpe, the Contractor shall cause the insurers for such policies to provide copies of the endorsed policies to Oglethorpe.

18.4 The Contractor's insurance policies are the primary insurance policies with respect to any and all claims, losses, damages, liabilities and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations under this GSA or any Task

Release to the extent covered thereby, and Oglethorpe's or any Owner's insurance shall be in excess of the Contractor's insurance and shall not contribute with it.

18.5 (A) The Contractor waives all claims and rights to recover damages against Oglethorpe and any Owner and their respective members, directors, officers, employees, agents, insurers, subcontractors and consultants for any and all claims, losses, damages, liabilities and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations under this GSA or any Task Release, to the extent covered by one or more of the following: (i) any of the insurance policies the Contractor is required to maintain pursuant to this Section 18, and (ii) any of the Contractor's other insurance policies, including, without limitation, property insurance.

(B) In addition to the waiver set forth in Paragraph 18.5(A), with respect to any services that the Contractor performs at the Chattahoochee Energy Facility, the Contractor also waives all claims and rights to recover damages against MEAG and Southern Power to the same extent that the Contractor waives all claims and rights against Oglethorpe and any Owner and their respective members, directors, officers, employees, agents, insurers, subcontractors and consultants as set forth in Paragraph 18.5(A).

18.6 Prior to performing any services at the Chattahoochee Energy Facility:

(A) The Contractor shall cause each of its insurers with respect to the policies identified on Schedule 1 and all of its property insurers (if any) (i) to waive all rights of subrogation against Oglethorpe, MEAG and Southern Power for claims, losses, damages, liabilities and actions arising out of or relating to the Contractor's performance of, or failure to perform, its obligations with respect to the Chattahoochee Energy Facility under this GSA or any Task Release; and (ii) to issue endorsements to such policies to waive such subrogation rights to the extent the terms of the policies require such endorsements to effect such waivers.

(B) The Contractor shall provide a certificate of insurance to Oglethorpe that, in addition to satisfying Paragraph 18.3, includes the following statement:

Each insurer has waived all rights of subrogation against Oglethorpe Power Corporation, Municipal Electric Authority of Georgia and Southern Power Company, to the extent required by the General Services Agreement between the Insured and Oglethorpe Power Corporation.

Upon the request of Oglethorpe, the Contractor shall cause its insurers to provide copies of the endorsed policies to Oglethorpe.

## 19. INDEMNIFICATION

19.1 The Contractor agrees to indemnify, hold harmless and defend Oglethorpe, any Owner and their respective members, directors, officers, employees, agents, contractors, subcontractors and consultants from and against any and all liability, claims, actions, causes of action, losses, damages, demands, suits, judgments, costs and expenses (including attorneys' fees and expenses)

presented or brought for any injuries (including death) to persons and for any damages to property arising out of or relating to (i) the Contractor's or any Subcontractor's performance of, or failure to perform, its obligations under this GSA or any Task Release or (ii) any negligence, strict liability or willful misconduct of Contractor or its employees, Subcontractors or agents, including, but not limited to, any and all costs, expenses, legal fees and liabilities, incurred in connection with investigation, defense or settlement thereof.

## **20. CONTRACT ADMINISTRATION**

20.1 Any party giving or making any notice, request, demand or other communication under this GSA shall give or make such notice, request, demand or other communication to the person and at the address designated by the receiving party in Paragraph 1.1, or such other person or address subsequently designated by the party in a written notice to the other party.

20.2 To be binding against Oglethorpe, and as a condition precedent thereto, any addition to, deletion from or modification to the terms of this GSA and any Task Release must be in writing and signed by both Oglethorpe and the Contractor. The Contractor acknowledges and agrees that Oglethorpe does not, and shall not be deemed to, waive this condition precedent under any circumstances.

20.3 Failure of Oglethorpe or the Contractor to insist in any one or more instances on performance of any of the terms and conditions of this GSA or any Task Release, or to exercise any right or privilege contained in this GSA or any Task Release, or the waiver of any breach of the terms and conditions of this GSA or any Task Release, shall not be considered as thereafter waiving any such terms, conditions, rights or privileges, and the same shall continue and remain in force and effect.

20.4 The Contractor acknowledges that Oglethorpe is a generation corporation owned by its Members, which are electric membership cooperatives. Notwithstanding any other terms and conditions stated in this GSA or any Task Release, Oglethorpe reserves the right without the consent of the Contractor to assign this GSA or any Task Release or any of the rights arising thereunder, in whole or in part. The Contractor, however, shall not assign any of its rights, or delegate any of its duties, without the prior written consent of Oglethorpe.

20.5 Upon termination of this GSA, the following provisions will continue in effect: (i) the provisions of Sections 5 and 6, to the extent necessary to provide for final billing and payments and the transfer of work product; (ii) Section 19, Paragraph 8.2, Paragraph 17.4 and any other provision relating to liability or indemnification for acts or events that occurred while this GSA was in effect; and (iii) the confidentiality provisions for the periods set forth in Section 4.

20.6 This GSA and any Task Release shall be governed by the laws of the State of Georgia.

20.7 Time is of the essence in this GSA and any Task Release.

20.8 If any provision of this GSA or any Task Release is determined invalid or unenforceable under applicable law, the remainder of this GSA or any Task Release shall continue in full force

and effect and there shall be substituted for such illegal or unenforceable provision a like but legal and enforceable provision which most clearly carries into effect the intention of the original provision. In the event a like but legal and enforceable provision cannot be substituted, the illegal or unenforceable provision shall be deemed to be deleted and the remaining provisions of this GSA or any Task Release shall continue in full force and effect.

## **21. FORCE MAJEURE**

21.1 The Contractor will not be responsible or liable in any way for its delay or failure to perform its obligations under this GSA and any Task Release during any period in which performance is prevented or hindered by conditions reasonably beyond its control, acts of God, fire, flood, other weather conditions, war, embargo, explosions, riots, laws, rules, regulations or orders of any governmental authority.

## **22. CAPTIONS**

22.1 The headings in this GSA are for the convenience of the parties hereto and shall in no way affect the construction or interpretation of this GSA or any Section or Paragraph.

## **23. THIRD PARTY BENEFICIARIES**

23.1 This GSA confers enforceable rights and remedies upon the following (collectively, the "**Intended Third Party Beneficiaries**"): (i) any Owner, as set forth in Sections 3, 4, 5, 7, 8, 9, 11, 17, 18 and 19; (ii) Oglethorpe's and each Owner's respective members, directors, officers, employees, agents, contractors, subcontractors and consultants, as set forth in Sections 18 and 19; and (iii) Southern Power and MEAG, as set forth in Section 18. This GSA is not intended to, nor may it be deemed to, create any rights of enforcement in any person who is neither a party to this GSA nor specifically listed in the preceding sentence. Oglethorpe and the Contractor reserve the power to modify or terminate this GSA as provided herein without the consent of any of the Intended Third Party Beneficiaries.

[Signatures appear on the next page.]

**IN WITNESS WHEREOF**, Oglethorpe and the Contractor, each acting through a duly authorized officer, have placed their signatures on duplicate original copies of this GSA.

**OGLETHORPE POWER CORPORATION  
(AN ELECTRIC MEMBERSHIP  
CORPORATION)**

By: 

Name: Clarence Mitchell

Title: Sr. Vice President, Contract Operations & Env

**REMTECH**

By: 

Name: Mark Ryckman

Title: President

FEDERAL TAX ID. NO. 50-1815739

EXHIBIT A (See Paragraph 12.1)

GSA Number: 06-0109**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY  
AND VOLUNTARY EXCLUSION - LOWER TIER COVERED TRANSACTIONS**

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017.

**(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW)**

- (1) The prospective Lower Tier Participant certifies, by submission of this proposal that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective Lower Tier Participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**Remtech**

Organization Name

PR/Award Number of Project Name

*Mark Ryckman, President*  
 Name and Title of Authorized Representative

*[Signature]*  
 Signature

*6/16/06*  
 Date

Operations GSA (11/05)

## INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this form, the prospective Lower Tier Participant is providing the certification set out below in accordance with these instructions.
2. The certification in this clause is a material representation of fact which reliance was placed when this transaction was entered into. If it is later determined that the prospective Lower Tier Participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies including suspension and/or debarment.
3. The prospective Lower Tier Participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective Lower Tier Participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective Lower Tier Participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 C.F.R. part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective Lower Tier Participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all Lower Tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant is a lower tier covered transaction that it is not proposed for debarment under 48 C.F.R. part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 C.F.R. part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Operations GSA (11/05)

EXHIBIT B (See Paragraph 13.1)

GSA Number: 06-0109**LOBBYING CERTIFICATION****Certification for Contracts, Grants, Loans, and Cooperative Agreements**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

**Remtech**

Organization Name

M. G. Ryckman  
Name of Authorized Official

[Signature]  
Signature

6/16/06  
Date

Operations GSA (11/05)

**SCHEDULE 1  
INSURANCE REQUIREMENTS**

<b>Type of Insurance Policies</b>	<b>Minimum Coverage Limits</b>
Workers' Compensation Employer's Liability	(Statutory) \$1,000,000 annual aggregate
Commercial General Liability and/or Excess Liability Must include bodily injury and property damage coverage for contractual liability.	\$5,000,000 per occurrence
Comprehensive Auto Liability Must include coverage for hired and non-owned autos.	\$1,000,000 annual aggregate
<p>If checked "yes," then pollution liability coverage as stated below is required. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	
Pollution Liability Must include liability coverage for removal, transit, and/or disposal of hazardous substances.	\$1,000,000 annual aggregate
<p>If checked "yes," then professional liability coverage as stated below is required. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
Professional Liability Coverage must remain in full force for two (2) years after completion of all services under, or the termination of this Agreement or any Task Release.	\$1,000,000 annual aggregate

Note: Refer to Section 18 of GSA for detailed insurance certificate requirements.

OPC Schedule 1- Level 1



January 6, 2014

Mr. Sam Najim  
Senior Environmental Specialist  
Oglethorpe Power Corporation  
2100 East Exchange Place  
Tucker, GA 30084

Dear Sam:

Remtech has responded to over 200 incidents during 2013 that meets regulatory requirements demonstrating Remtech's spill response deployment equipment readiness and response resources for your facilities as your spill response/environmental contractor.

Select responses are summarized below:

- Major railroad underground diesel fuel pipeline break, emergency response, containment, leak location, site remediation, and pipeline repair in intermodal yard in Metro Atlanta. Recovered over 1,000,000 million gallons of fuel and petroleum contact water from under railyard and passing through a subdivision. Total fluids groundwater vacuum extraction ongoing.
- Major coal fired power plant 3,500-gallon fuel oil release emergency response and cleanup on large detention pond in NE Georgia. Deployed 600 ft of containment and recovery boom, vacuumed fuel from water surface and treated sediments with Remtech's proprietary native biostimulation accelerator, HC-2000.
- Multiple fuel and hydraulic oil spill responses for major railroad throughout SE. One response required treatment of 10 miles of track with HC-2000 to degrade fuel in ballast. HC-2000 applied with High Rail truck.

Don't hesitate to contact us if you have any questions or need additional information.

Respectfully Submitted,

Mark D. Ryckman, P.E., B.C.E.E.  
Principal Engineer

### **Site Remediation, Emergency Response & Remediation Equipment**

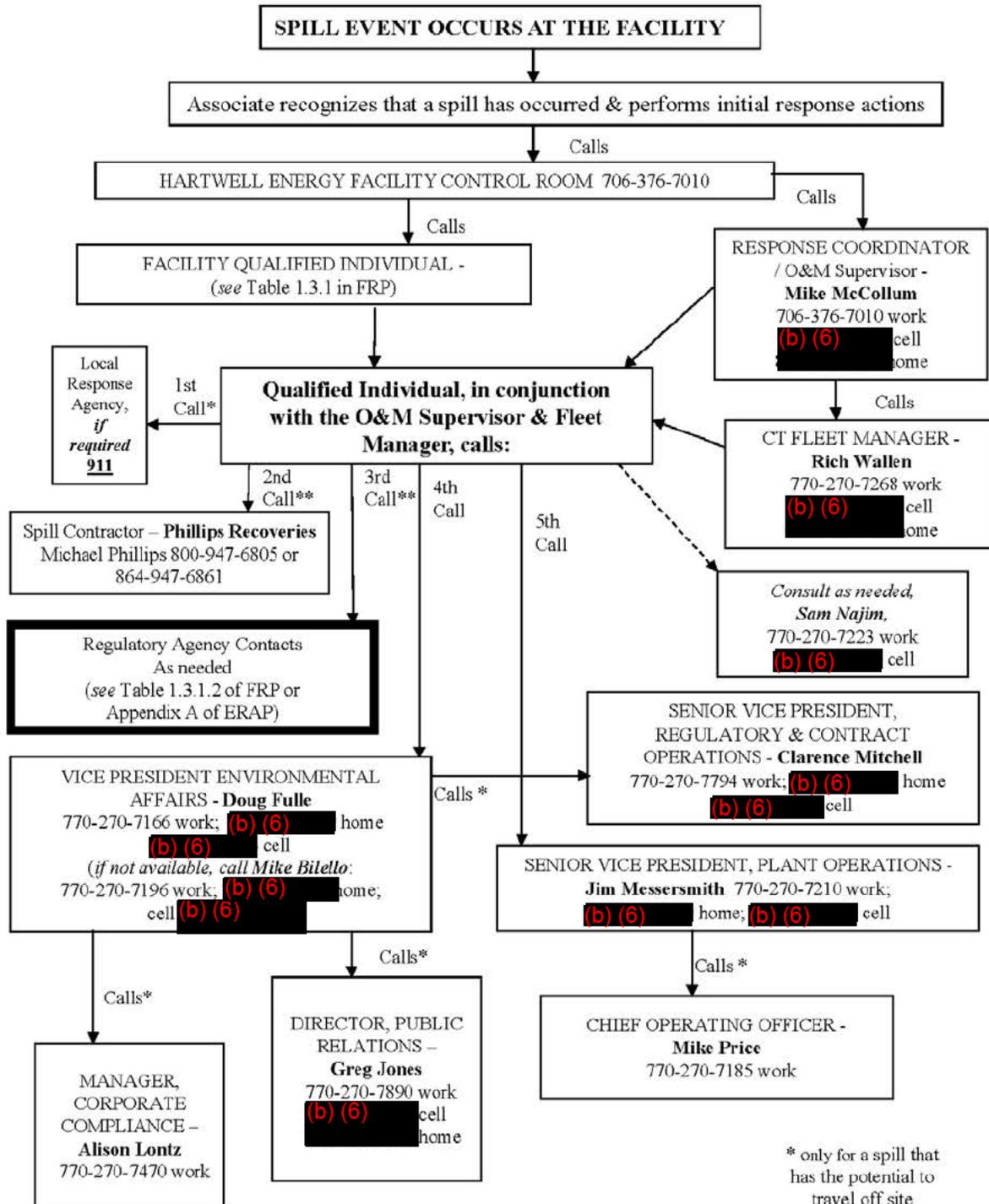
200 North Cobb Parkway, Suite 208, Marietta, Georgia 30062  
Phone: (800) 377-3648 or (770) 427-7766, Fax: (770) 427-7001  
website: <http://www.remtech-eng.com>

# **HARTWELL ENERGY FACILITY RESPONSE PLAN**

## **APPENDIX B**

Spill Reporting Flowchart  
Incident Report Template  
Prioritized Checklist of Local, State, Federal Contacts  
Spill Response Notification Form  
Sample OSRO Safety Plan

## HARTWELL ENERGY FACILITY SPILL REPORTING PROCEDURES



7/17/14

Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
 See link: <http://sp365/sites/OPCEN/ENVRE GADMIN/SitePages/Home.aspx>  
 Click on Environmental Incident Report Template on the Left Column.



## OPC ENVIRONMENTAL INCIDENT REPORT FORM

### Requestor Information

*Reporting Associate::* \_\_\_\_\_ *Date of Report:* \_\_\_\_\_  
*Associate Number:* \_\_\_\_\_ *Extension:*   
*Department:* \_\_\_\_\_

### Incident Information

*Facility:* \_\_\_\_\_  
*Location:*   
*Description of Event:*   
*How identified:* Select...  
*Date and Time of Incident:*    
*Date and Time Incident identified:*    
*Type of Incident:*

- Spill
- Air Release
- Other

*Material Involved:*

- Oil *Type:*
- Hazardous Material *Type:*
- Hazardous Waste *Type:*
- NOX *Type:*
- Other

R1-1

**Incident Report**  
**Attorney – Client Privileged Communication**

Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
 See link: <http://sp365/sites/OPCENV/ENVREGADMIN/SitePages/Home.aspx>  
 Click on Environmental Incident Report Template on the Left Column.

How much was released:  Select... If other:

Immediate Actions Taken: (attach additional sheet and pictures if needed)

Follow-up actions to date: (attach additional sheet if needed)

Root Cause Analysis (to be submitted separately from Incident Report)

Root Cause Analysis Contact Associate:   
 Email (if not OPC):

Scheduled Completion Date:

INTERNAL NOTIFICATIONS:	
<input type="radio"/> Yes <input type="radio"/> No	Spill Response Coordinator / Qualified Individual Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Facility – Plant Manager / O&M Supervisor Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Fleet Manager/ Manager Contract Assets Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Senior Vice President Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	OPC Public Relations Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	OTHER (specify email address) <input type="text"/> Date/Time Notified: <input type="text"/> <input type="text"/>
	Legal Department: (Always Notified) Charles Whitney Annalisa Bloodworth Date/Time Notified: <input type="text"/> <input type="text"/>
	VP, Environmental Affairs: (Always Notified)

R1-2

**Incident Report**  
**Attorney – Client Privileged Communication**

Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
 See link: <http://sp365/sites/OPCENV/ENVREGADMIN/SitePages/Home.aspx>  
 Click on Environmental Incident Report Template on the Left Column.

Doug Fulle		
Date/Time Notified: <input type="text"/> <input type="text"/>		
Chief Operating Officer: (Always Notified)		
Mike Price		
Date/Time Notified: <input type="text"/> <input type="text"/>		
<b>AGENCY NOTIFICATIONS:</b>		
Agency:	Agency Contact:	Title:
<input type="text"/>	<input type="text"/>	<input type="text"/>
Date/Time:	OPC Associate:	
<input type="text"/> <input type="text"/>	<input type="text"/>	
Brief description of Notification and any Agency instructions.		
<input type="text"/>		
Additional Information:		
<input type="text"/>		
(Report must be submitted by end of business day of the incident - if additional information becomes available, an amended form should be submitted.)		
<b>Review &amp; Routing</b>		
Reviewer:		
Douglas Fulle VP, Environmental Affairs		
Comments:		
<input type="text"/>		
<u>Notifications to be sent:</u> chuck.whitney@opc.com annalisa.bloodworth@opc.com mike.price@opc.com		
Attorney – Client Privileged Communication		

## A Checklist for Emergency Notification of Outside Agency Contacts for Spills Outside the Facility

Reporter's Name and Date: \_\_\_\_\_

Facility Name: Hartwell Energy Facility

Owner Name: Oglethorpe Power Corporation

Facility Address: 415 Smith McGee Hwy 181, Hartwell, Georgia 30643

Facility Identification Number: \_\_\_\_\_

Organization	Phone No.	Call Order	Called (Y/N)
Local Response Team (Fire Dept./Cooperatives):	706-376-8515 (911)	1 <sup>st</sup> Call	
State Police (Sheriff's Office):	706-376-3114 (911)		
Phillips Recoveries, Inc. (Primary Response Contractor), Michael Phillips	800-947-6805 (H) (b) (6) (C) [REDACTED]	2 <sup>nd</sup> Call	
Remtech Engineers (Secondary Response Contractor), Mark Ryckman	800-377-3648 x 203 or 770-427-7766 x 203	2 <sup>nd</sup> Call	
National Response Center	800-424-8802 202-267-2675	3 <sup>rd</sup> Call	
Federal On-Scene Coordinator (OSC) EPA Region IV (24-hour Spill Line)	404-562-8700	4 <sup>th</sup> Call	
State Emergency Response Commission (SERC): 24-hour Dispatch (in state)	800-241-4113 404-656-4863	5 <sup>th</sup> Call	
Local Emergency Planning Committee (LEPC):	706-376-8515	6 <sup>th</sup> Call	
City of Hartwell, Georgia, Water Supply System	706-856-3211	Call if spill reaches the Savannah River	
City of Elberton Georgia	706-283-5321		
City of Abbeville, South Carolina	Normal 864-366-5058 Emergency 864-366-5677		
Weather Report:	770-632-1837	If Needed	
Local Television/Radio Station for Evacuation Notification:	706-376-2233	If Needed	
Hospitals:	706-376-3921 (911)	If Needed	
Plantation Pipe Line, Liquid Fuel	(800) 510-5678	If Affected	
Colonial Pipe Line, Liquid Fuel	(800) 926-2728	If Affected	
William Transco Natural Gas Pipe Line	(800) 440-8475	If Affected	

**Spill Response Notification Form (page 1 of 3)**

NOTE: All possible information on this checklist should be known at the time of notification, or be in the process of being collected, but **DO NOT DELAY NOTIFICATION TO COLLECT THE INFORMATION ON THIS LIST.**

Reporter's Last Name:		First:		Middle Initial:	
Phone Numbers: (      )      -      ;(      )      -					
Company: Hartwell Energy Facility					
Organization Type: Peak Energy Generation Facility					
Address: 415 Smith McGee Hwy 181					
City: Hartwell		State: Georgia		Zip: 30643	
Were Materials Released? (Y/N)		Confidential? (Y/N)			
Meeting Federal Obligations to Report? (Y/N)				Date Called:	
Calling for Responsible Party? (Y/N)				Time Called:	
INCIDENT DESCRIPTION					
Source and/or Cause of Incident:					
Date: (month/day/year)		Time:      am/pm			
Distance from City: approx. 8		Units: miles	Direction from City: east		
Nearest City: Hartwell		State: Georgia	County: Hart	Zip: 30643	

**Spill Response Notification Form (page 2 of 3)**

Container Type and Capacity: Tank/Pipeline					Units: gallons	
Weather Conditions on Scene:						
Facility Latitude:		(b) (7)(F), (b) (3)				
Facility Longitude:		(b) (7)(F), (b) (3)				
MATERIAL						
CHRIS Code	Discharged Quantity	Unit of Measure	Material Discharged In Water	Quantity	Unit of Measure	
OTW						
RESPONSE ACTION						
Actions Taken to Correct, Control or Mitigate Incident:						
IMPACT						
Number of Injuries:			Number of Deaths:			
Were there Evacuations? (Y/N)			Number Evacuated:			
Was there any Damage? (Y/N)			Dollar Amount of Damage: (approx.)			
Medium Affected: (Air, Surface Water, etc.)			Description:			

**Spill Response Notification Form (page 3 of 3)**

Other Information about Medium:		
ADDITIONAL INFORMATION		
Any Information about the incident not recorded elsewhere in the report:		
CALLER NOTIFICATIONS		
NRC: _____ (Y/N)	US DOT: _____ (Y/N)	GA EPD: _____ (Y/N)
EPA: _____ (Y/N)	Fire Dept: _____ (Y/N)	Police: _____ (Y/N)
Other: _____ (Y/N) If yes, then describe:		
Name of Persons Notified:		
Additional Instructions or Recommendations made by notified officials:		

**Remtech Generic Site  
Safety Plan  
Chemical Plant Fire  
Response**

Project Name: Chemical Plant Fire Response  
Project Number: 3773  
Date: 5/24/14  
Location:

I. Emergency Phone Numbers:

Police: 911  
Fire: 911  
Ambulance: 911

Client Environmental Affairs:

Site Client Contact:

Remtech Engineers: 770-427-7766 x 9 or Mark D Ryckman, cell – (b) (6) Larry Seabolt, cell – (b) (6)

Remtech Corporate Physician: Atlanta Occupational Medicine, Dr. Steve Schram/Dr. James Wheeler, 404-256-1727, 770-256-1920

Hospital: Project Specific

II. Scope of Work

Remtech Engineers was engaged by Client to: 1) contain and pump stormwater from fire-impacted areas including tank dikes, sumps, containment areas and transfer to onsite frac tanks, 2) load waste tankers from frac tanks, 3) remove floating scum and filter stormwater discharges from drainage pond, and 4) clean fire impacted areas/material and provide support services as requested by Client.

III. Organization & Authority

Remtech personnel working with hazardous materials have completed 40-hour hazardous waste site activity training. The site safety officer has completed the required 8-hour supervisory course as required by OSHA 1910.120. The site safety officer reports to Remtech's corporate safety supervisor. The site safety officer's responsibility includes:

1. Ensuring that safe practices are followed at the site.
2. Determining and revising, as appropriate, the proper level of personal protective gear, including fall protection.
3. Monitoring environmental conditions at the site and informing workers as appropriate.
4. Maintaining site safety records.
5. Maintaining the integrity of the work zone (exclusion), contamination reduction zone, and clean zone.
6. Ensuring that appropriate personnel and equipment decontamination procedures are followed.
7. Ensuring that first aid and appropriate medical treatment is obtained for injured workers.

The following personnel and job functions are described below.

Project Manager: Larry K Seabolt, Jr.  
 Alternate Project Manager: Mark D. Ryckman  
 Corporate Health and Safety Manager: M. D. Ryckman

#### IV. Site & Potential Hazard Evaluation:

##### Site Description

The subject property encompasses \_\_\_\_\_ acres on Address: \_\_\_\_\_ The parcel ID is \_\_\_\_\_. The neighborhood is classed \_\_\_\_\_.

Client is a formulator and packager of specialty chemicals, including aerosols, liquids and lubricants including industrial cleaners and automotive chemicals.

This site is listed on the Georgia Hazardous Waste Site Inventory, other regulatory lists or permits: \_\_\_\_\_

##### Area Affected

Portions of this facility caught fire on \_\_\_\_\_. The principal areas of potential concern for encountering chemicals include the old and new tank farms, drum and chemical storage areas, stormwater and groundwater treatment areas. The fire was reportedly extinguished with 1,300 gallons of Ansulite 3% AFFF foam with an estimated 1,800 gpm of water applied to the fire between 2100 hours on 5/23/14 to 0500 hours on 5/24/14.

Stormwater and fire fighting runoff entered an unnamed urban drainage ditch and traveled 1.08 miles downstream prior to entering \_\_\_\_\_ creek. Several thousand fish were killed.

##### Surrounding Population

Properties in the surrounding area in predominately industrial, but also includes other sensitive receptors \_\_\_\_\_

##### Topography

The site is located in an area of rolling hills. Topographic relief across the site varies from highs of 990 + MSL to 815 ft at the discharge point.

##### Weather Conditions

Daily weather radar shall be monitored. Remtech is responsible for being onsite to prevent stormwater from process/fire impacted areas from entering offsite stormwater. Impacted stormwater will be pumped into 20,000 gal frac tanks or the old/new tank farms until capacity is available in frac tanks.

##### Potential Hazards

The fire at this facility consumed a considerable amount of raw materials and finished product. Product/burn residues, however, remains in above ground storage tanks, tank dikes, sumps, drums, piping, and manholes.

Recognition of potential chemicals encountered onsite shall be brought to the attention of the site safety officer. The following observations will require notification of the site safety officer:

- Discoloration of Soil or Chemicals
- Drums
- Containers
- Odors or unusual sensations
- Unusual Sounds (hissing, blasts, etc.)
- Heat of Reaction (heat waves, sensible heat emanating from containers or material)

Bubbling Frothing, foaming, boiling of materials  
 Depressions containing unknown materials  
 Vaults containing unknown materials  
 Pits containing unknown materials

Remtech's principal scope of work is dealing with Ansulite 3% FFF foam and contaminated stormwater that may contain some of the diluted products listed below:

*Potential Chemical Hazards*

1,1,1-Trichloroethane  
 1,1,2-Trichloroethane  
 1,1-Dichloroethane  
 1,1-Dichloroethene  
 1,1-Dichloropropane  
 1,2-Dichloroethane  
 Acetone  
 Benzene  
 bis (2-Ethylhexyl) phthalate  
 Carbon tetrachloride  
 Chloroethane  
 Chloroform  
 Cis-1,2-Dichloroethene  
 Cumene  
 Cyclohexane  
 Dichlorodifluoromethane  
 Dichloromethane  
 Ethylbenzene  
 Glycol ethers  
 Hexachlorobutadiene  
 Isophorone  
 Methanol  
 Methyl ethyl ketone  
 Naphthalene  
 p-Dichlorobenzene  
 Styrene  
 Tetrachloroethane, N.O.S.  
 Tetrachloroethene  
 Tetrachlorethylene  
 Toluene  
 Trichloroethene  
 Trichloroethylene  
 Trichlorofluoromethane  
 Vinyl chloride  
 Xylenes  
 Pond scum containing fire debris, algae, iron bacteria, AFFF foam

A-134A Propellant, 1,1,1,2-tetrafluoroethane  
 A-17/152 Blend Propellant, 1,1-difluoroethanol  
 A-46 Propellant, petroleum gases, liquefied, sweetened  
 A-70 propellant, petroleum gases, liquefied, sweetened  
 Carbon Dioxide  
 Diesel Fuel #2  
 Ethanol DSA  
 Heptane  
 Isopropyl Alcohol  
 Kerosene  
 LVP 100  
 Methylacetate  
 Methylene chloride

Neutral Oil 100, distillates petroleum  
 Nitrogen, compressed  
 Perchloroethylene  
 Sulfuric acid  
 VM&P Naptha

*Potential Physical/Biological Hazards*

*Site:*

Unstable building walls, roofs, pads  
 Unstable overhead piping  
 Structurally compromised ASTs  
 Drums, buldging, vented  
 Sumps, pits, stormwater manholes  
 Heavy duty equipment, hydraulic lines, equipment reach and impact  
 Demolition Activities by Others

*Pond:*

Unstable ground  
 Potholes, depressions, ruts around pond shore  
 Heavy Vegetation, briars, poison ivy  
 Slippery concrete outfall  
 Variable depth pond 0 to 8 ft+ deep  
 Soft benthic material on pond bottom with quicksand type properties  
 Debris in Pond

*Potential Task Specific Hazards*

Frac Tanks walkways  
 Pressurized stormwater pumps, hoses, and tank connections  
 Vacuum Truck Suction Hoses  
 Portable Compressor Equipment, 100 psi

Water safety, outboard motor, boat  
 Boom deployment  
 Construction and maintenance of pond discharge carbon/straw filter  
 Clearing brush with chain saws and brush cutting equipment  
 Operating Bobcat, power broom, vacuum truck, and pressure/steam cleaning equipment

General Cleanup Activities - struck by injuries - stay out of way operating equipment reaches (minimum 25 ft) and potential failure zones of hydraulic lines, cable, etc.

Communications - Maintain line of sight communications and cell phone access while of site with equipment operators and personnel operating equipment. Do not enter zone of influence without acknowledgement from operator to cease operations.

Lockout/Tagout – ensure that all electrical and mechanical systems are locked out prior to working in any area.

Sampling & Support Activities - Running water, first aid kit, and eye wash shall be maintained on site at all times.

IV. Site Control

No smoking, eating, chewing gum or tobacco, or drinking is allowed in the Hot Zone or Contamination Zones. Security is to be provided by owner to ensure that unauthorized personnel are kept off the property during site activities. Designated areas will be identified.

All workers are to avoid touching, contacting, walking through, or approaching chemicals. Defensive avoidance postures shall be taken upon encountering any unusual observations. Any unusual observations shall be reported to the site safety officer.

Fugitive Dust Controls

This site contains chemical burn residues that have "tar and carbon black like" properties. Wetting agents with water mist are required to minimize generation of fugative dust propagation, especially when brooming or driving vehicles through these areas. At a minimum, personnel working in these areas will be required to wear Level D PPE with a P-100 rated dust mask.

Site operations will be maintained in three separate work zones: a work/exclusion zone (where potential exposure to site contaminants exist, a contamination reduction zone (where personnel and equipment decontamination operations are performed, and clean zone (where site support facilities are located). The control line (between the contamination reduction zone and clean zone) will be clearly marked and maintained. Personnel will always work according to the buddy system.

The exclusion zone is defined as the footprint of buildings where fire occurred, sumps, pits, or containment areas, or any area containing product or burn residues. The contamination reduction zone is defined within 10 ft of the frac tanks on The W side of the site. The clean area is defined as the area outside the fence along Industrial Park Drive and outside 5 ft on the N side of the frac tanks near the front office entrance and on the E side plant access road.

Remtech's primary work area will be in areas outside the immediate burn areas in driveways & alleys that are not contaminated or are part of the CRZ zone.

#### Site Communications

On-site communications will be established and consist of verbal communications, hand signals, line-of-sight communications, and cell phones. To summon emergency support services, cellular telephones will be available on site.

#### Safe Operating Practices

Remtech Health and Safety Procedures apply to Remtech's hazardous waste and emergency response operations. These procedures are contained in Remtech's Health and Safety Procedures Manual that is reviewed with and provided to site supervisors during OSHA Supervisors Training. Questions on the applications of these procedures to site operations should be directed to Remtech's Corporate Health and Safety Manager.

#### VI. PERSONAL PROTECTIVE EQUIPMENT

The following levels of protection are designated for each task performed in the site work zones, based on the potential hazards posed by each task. Site modifications may only be made with the approval of Remtech's Corporate Health and Safety Manager or onsite measurements that confirm that the hazard has dissipated.

For work conducted in the CRZ zones: Level D, Hard Hat, Safety Glasses, Steel Shoes/Chemical Boots, Nitrile Gloves, White Tyvek Optional.

For work inside 50 ft radius of removal of fire debris, pure product transfer or cleanup activities impacting contaminated debris: Level C: Full-face respirator, Dual Purple/Green Cartridges, Yellow Tyvek, Hardhat, Chemical Boots, Nitrile Gloves. Where breathing zone PID reading can be demonstrated to be less than 5 ppm, consult the Safety Manager to determine if PPE can be reduced.

Confined Space Entry – areas defined by tanks, manholes, inside walls with contamination exceeding 4 ft in height – Requires Confined Space Entry Permit.

Fall – Protection – when working on heights over 3 ft high, fall protection is required. Ensure that guardrails are in place on all frac tanks prior to climbing on top. Access on top of the frac tanks is restricted to within the confines of guardrails.

#### VII. DECONTAMINATION PROCEDURES

Personnel and equipment decontamination procedures will be developed and communicated to site personnel. Where possible, areas on obvious contamination will be avoided by workers; using remote handling/sampling equipment; covering or enclosing instrumentation; wearing outer disposable garments; and containing contamination with poly sheeting/containers. In fire situations, tracking offsite must be avoided.

All personnel leaving the Contamination Reduction Zone (CRZ) will perform personnel decontamination procedures. Contaminated disposable clothing will be bagged and containerized and disposed of in accordance with environmental regulations.

The doffing (removal) sequence of contaminated clothing for level D/C in the CRZ will be followed:

- Remove chemical boots or outer boot covers and leave in CRZ.
- Remove tyvek.
- Clean and remove hard hat.
- Remove, wash and rinse respirator.
- Remove gloves.
- Wash hands, face, and neck.

Contaminated articles shall be placed in a decon container such as a plastic bag or drum, labeled, and moved to the drum storage area when full.

The level of personnel protection will be upgraded when potential new, changing, or unknown conditions are encountered.

## VIII. EMERGENCY RESPONSE PLAN

### Pre-Emergency Planning

Before starting site operations, the SSO will implement emergency procedures that include: identifying the location and route to emergency medical services; establishing site communications; designating emergency warning signals and evacuation routes; inventorying emergency equipment; and communicating emergency procedures to personnel.

### Personnel Lines of Authority and Communication

The SSO takes the lead during site emergencies until off-site emergency responders arrive. In cases of major emergencies, Remtech personnel will evacuate the site, contact local emergency personnel to handle the incident. Minor site emergencies that are controllable on-site with emergency equipment located at the site will be addressed by Remtech personnel with the approval of the SSO.

### Emergency Recognition and Prevention

The SSO will conduct an initial site safety briefing to review the requirements of the site safety plan with site personnel. This briefing will include discussions on the recognition, prevention, and control of emergencies anticipated on-site. Daily safety meetings will be held to emphasize emergency prevention and control measures.

### Safe Distance and Places of Refuge

The on-site assembly point will be located in the clean zone where site personnel are accounted for and emergency services are contacted. The SSO will evaluate the emergency situation based on the hazards posed to site personnel remaining at the on-site assembly point, then determine the need and location of further off-site evacuation and assembly points.

### Site Security and Control

(b) (7)(F), (b) (3)

Evacuation Routes and Procedures

(b) (7)(F), (b) (3)

Emergency Decontamination Procedures

Personnel will be decontaminated to the extent feasible (gross decon or deluge shower) but life saving and first aid procedures take priority over personnel decontamination efforts. Standard personnel decontamination procedures apply for those injuries deemed non-life threatening by the SSO.

Emergency Medical Treatment and First Aid

In the absence of reasonable accessible medical services, the SSO trained in first aid by the American Red Cross or the equivalent will be available on-site to render first aid. An industrial first aid kit will be available on site, with its contents approved by Remtech's consulting physician. The contents of the first aid kit will be checked by the SSO weekly, with expendable items replaced when exhausted.

Emergency Actions

If actual or suspected serious injury occurs on-site implement the following emergency actions:

1. Remove the exposed/injured person(s) from immediate danger.
2. Render first aid if necessary. Decontaminate injured after critical first-aid has been administered.
3. Obtain paramedic services or ambulance transport to local hospital. This procedure shall be followed even if there is no visible injury.
4. Other personnel in the work area shall be evacuated and assembled at the clean zone until the SSO determines that is safe to resume work.

Response Follow-Up

The SSO must complete an incident investigation form for site emergencies within 24 hours of the incident and transmit it to the Corporate Safety Officer. Accidents involving lost time, overexposures, or site evacuations must be reported within 24 hours to:

M. D. Ryckman  
 Corporate Safety Officer  
 Phone: 770-427-7766 x 203  
           800-377-3648 x 203  
 Fax: 770-427-7001

The SSO will identify the cause(s) of the incident and take action to prevent reoccurrence. The SSO will also evaluate the effectiveness of the site's emergency response procedures and implement corrective actions as appropriate.

Emergency Equipment On-Site

1. Fire extinguishers in 20 ft. trailer
2. First Aid Kit in decontamination area
3. Eye Wash in decontamination area

## IX. WORK PLAN

1. Daily Tailgate Meetings to go over daily work tasks at beginning and end of each day
2. Verify power and mechanical equipment locked out, review hazards and emergency procedures
3. Review safety procedures
4. Verify that Work Zone integrity is maintained

#### X. SITE SAFETY PLAN CERTIFICATION

This site safety plan complies with the appropriate sections of 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response". Only site personnel meeting the training and medical surveillance requirements of 29 CFR 1910.120 are authorized to perform hazardous waste operations or emergency response at this site.

Signature: Mark D. Ryckman



## Remtech Hazard Communication Program

The purpose of hazard communication (Employee Right-to-Know) is to ensure that the hazards of all chemicals located at this field project site are communicated according to 29 CFR 1926.59 to all Remtech personnel. Hazard communication will include the following:

1. Container labeling -- Remtech will ensure that all drums and containers are labeled according to contents. These drums and containers will include those from manufacturers and those produced on site by operations. All incoming and outgoing labels shall be checked for identity, hazard warning, and name and address of the responsible party.
2. MSDSs -- There will be an MSDS located on site for each hazardous chemical known to be or used on site. All MSDSs will be attached to the site safety plan. The site safety plan can be found in the SSO's possession on site.
3. Employee Information and Training -- Training employees on chemical hazards is accomplished by Remtech Engineer's training program. Chemical hazards are communicated to employees through daily safety meetings held at the site and during the initial site orientation meeting.

Remtech's Hazard Communication Program Includes the following:

1. Chemicals and their hazards in the work area
2. How to prevent exposure to these hazardous chemicals
3. What the company has done to prevent workers' exposure to these chemicals
4. Procedures to follow if they are exposed to these chemicals
5. How to read and interpret labels and MSDSs for hazardous substances found on Remtech sites
6. Emergency spill procedures
7. Proper storage and labeling

Before any new hazardous chemical is introduced on site, each employee will be given information in the same manner as during the safety class. The SSO will be responsible for seeing that the MSDS on the new chemical is available. The information pertinent to the chemical hazards will be communicated to project personnel.

Morning safety meetings are held and the hazardous materials used on the site will be discussed. Attendance is mandatory for all employees.

Refer to MSDs for chemicals specifically brought to this site.

Chemical Hazard Matrix

Chemical	FP, F	Sol, %	TWA, ppm	IP, ev	CF	Ca	Target Organism	Skin, Eye Hazard	Ingestion Hazard	Vapor Inhalation	Odor Warning Properties, ppm
1,1-Dichloroethane	2	6	100	11.06			CNS	yes	yes	yes	255
1,1-Dichloroethene	14	5 to 10 mg/l	5		0.82	yes	CNS	yes	yes	yes	
1,1-Dichloropropane	70	?	ND		NR			yes	yes	yes	
1,1,1-Trichloroethane	>200	INS	350		NR			yes	yes	yes	22.4
1,1,2-Trichloroethane		0.4	10 Skin	11	NR	yes	CNS	yes	yes	yes	
1,2-Dichloroethane			10					yes	yes	yes	11.2
Acetone	0	100	500	9.69	1.1	yes	CNS	yes	yes	yes	4.58
Benzene	12	0.07	1	9.24	0.53	yes	CNS	yes	yes	yes	8.65
bis(2-Ethylhexyl) phthalate			5 mg/cm								
Carbon Dioxide			5000								74,000
Carbon tetrachloride	NA	0.05	10	11.47	NR	yes	CNS	yes	yes	yes	40.7
Chloroethane								yes	yes	yes	
Chloroform	NA	0.5	50 C	11.42	NR	yes	CNS	yes	yes	yes	11.7
Cis-1,2-Dichloroethene								yes	yes	yes	
Cumene	96	INS	50	8.75	0.54		CNS	yes	yes	yes	0.024
Cyclohexane	0	INS	300	9.88	0.8		CNS	yes	yes	yes	83.8
Dichlorodifluoromethane	NA	0.03	1000	11.75			Temor	yes	yes	yes	
Diesel Fuel #2			11		0.9						
Ethanol DSA	55	100	1000	10.47	10		CNS	yes	yes	yes	
Ethylbenzene	55	0.01	100	8.76	0.52		CNS	yes	yes	yes	12
Glycol ethers								yes	yes	yes	0.708
Heptane	25	0.0003	500	9.9	2.8		CNS	yes	yes	yes	9.77
Hexachlorobutadiene	?	INS	0.02 NIOSH	?		yes	Kidney Damage	yes	yes	yes	
Isophorone	184	1	25	9.07			CNS	yes	yes	yes	0.631
Isopropyl Alcohol	53	> 100 mg/l	200		6			yes	yes	yes	0.44
Kerosene	100 to 162	INS	100 mg/cm NIOSH	?	1		CNS	yes	yes	yes	
LVP 100								yes	yes	yes	

Chemical Hazard Matrix

Chemical	FP, F	Sol, %	TWA, ppm	IP, ev	CF	Ca	Target Organism	Skin, Eye Hazard	Ingestion Hazard	Vapor Inhalation	Odor Warning Properties, ppm
Methanol	52	100 mg/l	200 Skin		NR			yes	yes	yes	141
Methyl ethyl ketone			200		0.9			yes	yes	yes	0.27
Methylacetate	14	25	200	10.27	6.6		CNS	yes	yes	yes	
Methylene chloride	?	2	25	11.32	NR	yes	CNS	yes	yes	yes	0.912
Naphthalene	174	0.003	10	8.12	0.42		CNS	yes	yes	yes	0.015
Neutral Oil 100, distillates petroleum								yes	yes	yes	
Nitrogen, compressed								yes	yes	yes	
p-Dichlorobenzene	150	0.008	75	8.98	0.47	yes	Kidney, Liver	yes	yes	yes	0.048
Perchloroethylene, Tetrachloroethylene	NA	0.02	100	9.32	0.57	yes	CNS	yes	yes	yes	6.17
Styrene	88	0.03	100/20	8.4	0.4		CNS	yes	yes	yes	3.44
Sulfuric acid	NA	100	1 mg/cm	?				yes	yes	yes	
Tetrachloroethane, N.O.S.	NA	0.3	5	11.1	NR	yes	CNS	yes	yes	yes	
Tetrachloroethene								yes	yes	yes	
Toluene	40	0.07	200	8.82	0.5		CNS	yes	yes	yes	0.16
Trichloroethylene, Trichloroethene		0.1	100	9.45	0.62	yes	CNS	yes	yes	yes	1.36
Trichlorofluoromethane								yes	yes	yes	16.3
Vinyl chloride		0.1	5	9.99	2	yes	CNS	yes	yes	yes	0.253
VM&P Naptha	20 to 55	INS	350 mg/cm NIOSH	?	0.97		CNS	yes	yes	yes	
Xylenes			100		0.4			yes	yes	yes	0.5

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# 1,1-DICHLOROETHANE



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## Chemical Identifiers

[What is this information?](#) ▶

CAS Number	UN/NA Number	DOT Hazard Label	CHRIS Code
75-34-3	<a href="#">2362</a>	Flammable Liquid	<a href="#">DCH</a>

## NFPA 704

Diamond	Hazard	Value	Description
3 1 0	Health	1	Can cause significant irritation.
	Flammability	3	Can be ignited under almost all ambient temperature conditions.
	Instability	0	Normally stable, even under fire conditions.
	Special		

(NFPA, 2010)

## General Description

A colorless liquid with an ether-like odor. Slightly soluble in water and slightly denser than water. Flash point below 70°F. Vapors denser than air. Used to make other chemicals.

## Hazards

[What is this information?](#) ▶

## Reactivity Alerts

Highly Flammable

## Air & Water Reactions

Highly flammable. Slightly soluble in water.

## Fire Hazard

Special Hazards of Combustion Products: When heated to decomposition emits highly toxic fumes to phosgene.

Behavior in Fire: Explosion hazard (USCG, 1999)

**Health Hazard**

INHALATION: Irritation of respiratory tract. Salivation, sneezing, coughing, dizziness, nausea, and vomiting. EYES: Irritation, lacrimation, and reddening of conjunctiva. SKIN: Irritation. Prolonged or repeated skin contact can produce a slight burn. INGESTION: Ingestion incidental to industrial handling is not considered to be a problem. Swallowing of substantial amounts could cause nausea, vomiting, faintness, drowsiness, cyanosis, and circulatory failure. (USCG, 1999)

**Reactivity Profile**

1,1-DICHLOROETHANE can react vigorously with oxidizing materials. It is incompatible with strong bases. Contact with strong caustics will cause formation of flammable and toxic gas. It will attack some forms of plastics, rubber and coatings. (NTP, 1992)

**Belongs to the Following Reactive Group(s)**

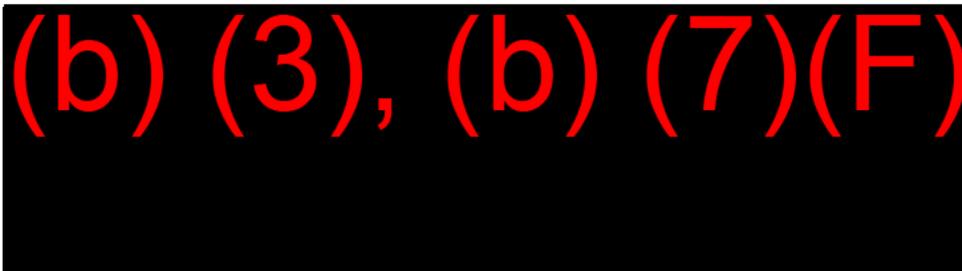
- [Halogenated Organic Compounds](#)

**Potentially Incompatible Absorbents**

No information available.

<b>Response Recommendations</b>
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[What is this information?](#) ▶

**Firefighting**

Excerpt from [GUIDE 130](#) [Flammable Liquids (Non-Polar / Water-Immiscible / Noxious)]:

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

SMALL FIRE: Dry chemical, CO<sub>2</sub>, water spray or regular foam.

LARGE FIRE: Water spray, fog or regular foam. Do not use straight streams. Move containers from fire area if you can do it without risk.

FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. (ERG, 2012)

**Non-Fire Response**

Excerpt from [GUIDE 130](#) [Flammable Liquids (Non-Polar / Water-Immiscible / Noxious)]:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers,

basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

**LARGE SPILL:** Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor; but may not prevent ignition in closed spaces. (ERG, 2012)

#### **Protective Clothing**

**Skin:** Wear appropriate personal protective clothing to prevent skin contact.

**Eyes:** Wear appropriate eye protection to prevent eye contact.

**Wash skin:** The worker should immediately wash the skin when it becomes contaminated.

**Remove:** Work clothing that becomes wet should be immediately removed due to its flammability hazard(i.e. for liquids with flash point < 100°F)

**Change:** No recommendation is made specifying the need for the worker to change clothing after the work shift. (NIOSH, 2003)

#### **DuPont Tychem® Suit Fabrics**

No information available.

#### **First Aid**

**EYES:** First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

**SKIN:** IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.

**INHALATION:** IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Protective Clothing.

**INGESTION:** DO NOT INDUCE VOMITING. Volatile chemicals have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital. (NTP, 1992)

#### **Physical Properties**

[What is this information?](#) ▶

**Chemical Formula:** C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub>

**Flash Point:** 22 ° F (NTP, 1992)

**Lower Explosive Limit (LEL):** 5.6 % (NTP, 1992)

**Upper Explosive Limit (UEL):** 11.4 % (NTP, 1992)

**Autoignition Temperature:** 856 ° F (USCG, 1999)  
**Melting Point:** -143 ° F (NTP, 1992)  
**Vapor Pressure:** 234 mm Hg at 77.0 ° F ; 182 mm Hg at 68° F (NTP, 1992)  
**Vapor Density (Relative to Air):** 3.44 (NTP, 1992)  
**Specific Gravity:** 1.174 at 68.0 ° F (USCG, 1999)  
**Boiling Point:** 135.1 ° F at 760.0 mm Hg (NTP, 1992)  
**Molecular Weight:** 98.96 (NTP, 1992)  
**Water Solubility:** less than 1 mg/mL at 68° F (NTP, 1992)  
**IDLH:** 3000 ppm (NIOSH, 2003)

**AEGLs (Acute Exposure Guideline Levels)**

No AEGL information available.

**ERPGs (Emergency Response Planning Guidelines)**

No ERPG information available.

**PACs (Protective Action Criteria)**

Chemical	PAC-1	PAC-2	PAC-3	
Ethylidene chloride, 1,1-; (1,1-Dichloroethane) (75-34-3)	160 ppm	160 ppm	4000 ppm	LEL = 54000 ppm

(SCAPA, 2012)

**Regulatory Information**

[What is this information?](#) ▶

Regulatory Name	CAS Number/ 313 Category Code	EPCRA 302 EHS TPQ	EPCRA 304 EHS RQ	CERCLA RQ	EPCRA 313 TRI	RCRA Code	CAA 112(r) RMP TQ
1,1-Dichloroethane	75-34-3			1000	X	U076	
Ethylidene Dichloride	75-34-3			1000	313	U076	

"X" indicates that this is a second name for an EPCRA section 313 chemical already included on this consolidated list. May also indicate that the same chemical with the same CAS number appears on another list with a different chemical name.

(EPA List of Lists, 2012)

**Alternate Chemical Names**

[What is this information?](#) ▶

- ASYMMETRICAL DICHLOROETHANE
- CHLORINATED HYDROCHLORIC ETHER
- 1,1-DICHLORETHANE
- DICHLOROETHANE, 1,1-

- 1,1-DICHLOROETHANE
- DICHLOROMETHYLMETHANE
- 1,1-ETHYLENE DICHLORIDE
- ETHYLIDENE CHLORIDE
- ETHYLIDENE DICHLORIDE
- 1,1-ETHYLIDENE DICHLORIDE
- HCC 150A
- NCI-C04535

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## VINYLIDENE CHLORIDE, INHIBITED

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**Chemical Identifiers**

[What is this information?](#)

CAS Number	UN/NA Number	DOT Hazard Label	CHRIS Code
75-35-4	<a href="#">1303</a>	Flammable Liquid	<a href="#">VCI</a>

**NFPA 704**

Diamond	Hazard	Value	Description
4 4 2	Health	4	Can be lethal.
	Flammability	4	Burns readily. Rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature.
	Instability	2	Readily undergoes violent chemical changes at elevated temperatures and pressures.
	Special		

(NFPA, 2010)

**General Description**

A clear colorless liquid with a chloroform-like odor. Flash point 0°F. Boiling point 99°F. Denser (at 10.1 lb / gal) than water and insoluble in water. Hence sinks in water. May polymerize exothermically if heated or contaminated. If the polymerization takes place inside a container, the container may rupture violently. Vapors heavier than air.

**Hazards**

[What is this information?](#)

**Reactivity Alerts**

- Highly Flammable
- Polymerizable
- Peroxidizable Compound

**Air & Water Reactions**

Highly flammable. Insoluble in water.

**Fire Hazard**

Special Hazards of Combustion Products: Toxic hydrogen chloride and phosgene are generated in fires.

Behavior in Fire: May explode in fire due to polymerization. Vapor is heavier than air and may travel considerable distance to a source of ignition and flash back. (USCG, 1999)

**Health Hazard**

Vapor can cause dizziness and drunkenness; high levels cause anesthesia. Liquid irritates eyes and skin. (USCG, 1999)

**Reactivity Profile**

Peroxidizable monomer, such as VINYLIDENE CHLORIDE, may initiate exothermic polymerization of the bulk

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material [Bretherick 1979, p. 160, 187]. Mixing vinylidene chloride in equal molar portions in a closed container with any of the following substances caused the temperature and pressure to increase: chlorosulfonic acid, nitric acid, or oleum [NFPA 1991]. Its reaction products with ozone are particularly dangerous [Dow Chemical, 1968]. This may extend to other powerful oxidants, as various peroxides are produced.

#### Belongs to the Following Reactive Group(s)

- [Halogenated Organic Compounds](#)
- [Hydrocarbons, Aliphatic Unsaturated](#)
- [Polymerizable Compounds](#)

#### Potentially Incompatible Absorbents

Use caution: Liquids with this reactive group classification have been known to react with the absorbents listed below. [More info about absorbents, including situations to watch out for...](#)

- Mineral-Based & Clay-Based Absorbents
- Dirt/Earth

#### Response Recommendations

[What is this information?](#) ▶

#### Isolation and Evacuation

(b) (7)(F), (b) (3)

#### Firefighting

Excerpt from [GUIDE 130P](#) [Flammable Liquids (Non-Polar / Water-Immiscible / Noxious)]:

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

SMALL FIRE: Dry chemical, CO<sub>2</sub>, water spray or regular foam.

LARGE FIRE: Water spray, fog or regular foam. Do not use straight streams. Move containers from fire area if you can do it without risk.

FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. (ERG, 2012)

#### Non-Fire Response

Excerpt from [GUIDE 130P](#) [Flammable Liquids (Non-Polar / Water-Immiscible / Noxious)]:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

LARGE SPILL: Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor; but may not prevent ignition in closed spaces. (ERG, 2012)

#### Protective Clothing

Skin: Wear appropriate personal protective clothing to prevent skin contact.

Eyes: Wear appropriate eye protection to prevent eye contact.

Wash skin: The worker should immediately wash the skin when it becomes contaminated.

Remove: Work clothing that becomes wet should be immediately removed due to its flammability hazard (i.e. for liquids with flash point < 100°F)

Change: No recommendation is made specifying the need for the worker to change clothing after the work shift.

Provide: Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for quickly drenching the body should be provided within the immediate work area for emergency use where there is a possibility of exposure. [Note: It is intended that these facilities provide a sufficient quantity or flow of water to quickly remove the substance from any body areas likely to be exposed. The actual determination of what constitutes an adequate quick drench facility depends on the specific circumstances. In certain instances, a deluge shower should be readily available, whereas in others, the availability of water from a sink or hose could be considered adequate.] (NIOSH, 2003)

#### DuPont Tychem® Suit Fabrics

[Fabric legend and testing details](#) ▶

Normalized Breakthrough Times (in Minutes)

Chemical	CAS Number	State	QC	SL	TF	TP	C3	BR	LV	RC	TK	RF
Vinylidene chloride	75-35-4	Liquid			>480	>480	170	>480	>480	>480	>480	>480

> indicates greater than.

A blank cell indicates the fabric has not been tested. The fabric may or may not offer barrier.

#### Special Warnings from DuPont

1. Serged and bound seams are degraded by some hazardous liquid chemicals, such as strong acids, and should not be worn when these chemicals are present.
2. CAUTION: This information is based upon technical data that DuPont believes to be reliable. It is subject to revision as additional knowledge and experience are gained. DuPont makes no guarantee of results and assumes no obligation or liability...

[More Info...](#) ▶

(DuPont, 2013)

#### First Aid

**EYES:** First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

**SKIN:** IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. IMMEDIATELY call a hospital or poison control center even if no symptoms (such as redness or irritation) develop. IMMEDIATELY transport the victim to a hospital for treatment after washing the affected areas.

**INHALATION:** IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. IMMEDIATELY call a physician and be prepared to transport the victim to a hospital even if no symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Protective Clothing.

**INGESTION:** DO NOT INDUCE VOMITING. Volatile chemicals have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital.

**OTHER:** Since this chemical is a known or suspected carcinogen you should contact a physician for advice regarding the possible long term health effects and potential recommendation for medical monitoring. Recommendations from the physician will depend upon the specific compound, its chemical, physical and toxicity properties, the exposure level, length of exposure, and the route of exposure. (NTP, 1992)

#### Physical Properties

[What is this information?](#) ▶

**Chemical Formula:** C<sub>2</sub>H<sub>2</sub>Cl<sub>2</sub>

**Flash Point:** 14 ° F (NTP, 1992)

**Lower Explosive Limit (LEL):** 7.3 % (NTP, 1992)

**Upper Explosive Limit (UEL):** 16 % (NTP, 1992)

**Autoignition Temperature:** 1058 ° F (USCG, 1999)  
**Melting Point:** -188.5 ° F (NTP, 1992)  
**Vapor Pressure:** 500 mm Hg at 68.0 ° F ; 591 mm Hg at 77° F (NTP, 1992)  
**Vapor Density (Relative to Air):** 3.25 (NTP, 1992)  
**Specific Gravity:** 1.21 at 68.0 ° F (USCG, 1999)  
**Boiling Point:** 89.1 ° F at 760.0 mm Hg (NTP, 1992)  
**Molecular Weight:** 96.94 (NTP, 1992)  
**Water Solubility:** 5 to 10 mg/mL at 70° F (NTP, 1992)  
**IDLH:** ; A potential human carcinogen. (NIOSH, 2003)

#### AEGLs (Acute Exposure Guideline Levels)

No AEGL information available.

#### ERPGs (Emergency Response Planning Guidelines)

Chemical	ERPG-1	ERPG-2	ERPG-3
Vinylidene Chloride (75-35-4)	ID	500 ppm	1000 ppm

ID = insufficient data.

(AIHA, 2013)

#### PACs (Protective Action Criteria)

Chemical	PAC-1	PAC-2	PAC-3	
Vinylidene chloride; (1,1-Dichloroethylene) (75-35-4)	45 ppm	500 ppm	1000 ppm	LEL = 65000 ppm

(SCAPA, 2012)

#### Regulatory Information

[What is this information?](#) ▶

Regulatory Name	CAS Number/ 313 Category Code	EPCRA 302 EHS TPQ	EPCRA 304 EHS RQ	CERCLA RQ	EPCRA 313 TRI	RCRA Code	CAA 112(r) RMP TQ
1,1-Dichloroethylene	75-35-4			100	X	U078	10000
Ethene, 1,1-dichloro-	75-35-4			100	X	U078	10000
Vinylidene chloride	75-35-4			100	313	U078	10000

"X" indicates that this is a second name for an EPCRA section 313 chemical already included on this consolidated list. May also indicate that the same chemical with the same CAS number appears on another list with a different chemical name.

(EPA List of Lists, 2012)

#### Alternate Chemical Names

[What is this information?](#) ▶

- ASYM-DICHLOROETHYLENE
- 1,1-DCE
- 1, 1-DICHLOROETHENE (VINYLIDENE CHLORIDE)
- 1,1-DICHLOROETHENE
- 1,1-DICHLOROETHYLENE
- DIOFAN A 5655
- ETHENE, 1,1-DICHLORO-
- ETHYLENE, 1,1-DICHLORO-
- F 1130A
- HCC 1130A

- ISO-DICHLOROETHYLENE
- NCI-C54262
- R 1130A
- SARAN
- SCONATEX
- UNSYM-DICHLOROETHYLENE
- VDC
- VINYLIDENE CHLORIDE
- VINYLIDENE CHLORIDE MONOMER
- VINYLIDENE CHLORIDE(II)
- VINYLIDENE CHLORIDE, INHIBITED
- VINYLIDENE CHLORIDE, [INHIBITED]
- VINYLIDENE DICHLORIDE

CAMEO Chemicals version 2.4.1

Other MSDS Sheets not included. MSDS sheets are project specific

## A Checklist for Emergency Notification of Outside Agency Contacts for Spills Outside the Facility

Reporter's Name and Date: \_\_\_\_\_

Facility Name: Hartwell Energy Facility

Owner Name: Oglethorpe Power Corporation

Facility Address: 415 Smith McGee Hwy 181, Hartwell, Georgia 30643

Facility Identification Number: \_\_\_\_\_

Organization	Phone No.	Call Order	Called (Y/N)
Local Response Team (Fire Dept./Cooperatives):	706-376-8515 (911)	1 <sup>st</sup> Call	
State Police (Sheriff's Office):	706-376-3114 (911)		
Phillips Recoveries, Inc. (Primary Response Contractor), Michael Phillips	800-947-6805 (H) (b) (6) (C) <span style="background-color: black; color: black;">XXXXXXXXXX</span>	2 <sup>nd</sup> Call	
Remtech Engineers (Secondary Response Contractor), Mark Ryckman	800-377-3648 x 203 or 770-427-7766 x 203	2 <sup>nd</sup> Call	
National Response Center	800-424-8802 202-267-2675	3 <sup>rd</sup> Call	
Federal On-Scene Coordinator (OSC) EPA Region IV (24-hour Spill Line)	404-562-8700	4 <sup>th</sup> Call	
State Emergency Response Commission (SERC): 24-hour Dispatch (in state)	800-241-4113 404-656-4863	5 <sup>th</sup> Call	
Local Emergency Planning Committee (LEPC):	706-376-8515	6 <sup>th</sup> Call	
City of Hartwell, Georgia , Water Supply System	706-856-3211	Call if spill reaches the Savannah River	
City of Elberton Georgia	706-283-5321		
City of Abbeville, South Carolina	Normal 864-366-5058 Emergency 864-366-5677		
Weather Report:	770-632-1837	If Needed	
Local Television/Radio Station for Evacuation Notification:	706-376-2233	If Needed	
Hospitals:	706-376-3921 (911)	If Needed	
Plantation Pipe Line, Liquid Fuel	(800) 510-5678	If Affected	
Colonial Pipe Line, Liquid Fuel	(800) 926-2728	If Affected	
William Transco Natural Gas Pipe Line	(800) 440-8475	If Affected	

**Spill Response Notification Form (page 1 of 3)**

NOTE: All possible information on this checklist should be known at the time of notification, or be in the process of being collected, but ***DO NOT DELAY NOTIFICATION TO COLLECT THE INFORMATION ON THIS LIST.***

Reporter's Last Name:	First:	Middle Initial:
Phone Numbers: (        )        -        ; (        )        -		
Company: Hartwell Energy Facility		
Organization Type: Peak Energy Generation Facility		
Address: 415 Smith McGee Hwy 181		
City: Hartwell	State: Georgia	Zip: 30643
Were Materials Released? (Y/N)	Confidential? (Y/N)	
Meeting Federal Obligations to Report? (Y/N)	Date Called:	
Calling for Responsible Party? (Y/N)	Time Called:	
INCIDENT DESCRIPTION		
Source and/or Cause of Incident:		
Date: (month/day/year)	Time: _____ am/pm	
Distance from City: approx. 8	Units: miles	Direction from City: east
Nearest City: Hartwell	State: Georgia	County: Hart        Zip: 30643

**Spill Response Notification Form (page 2 of 3)**

Container Type and Capacity: Tank/Pipeline					Units: gallons	
Weather Conditions on Scene:						
Facility Latitude:		(b) (7)(F), (b) (3)				
Facility Longitude:						
<b>MATERIAL</b>						
CHRIS Code	Discharged Quantity	Unit of Measure	Material Discharged In Water	Quantity	Unit of Measure	
OTW						
<b>RESPONSE ACTION</b>						
Actions Taken to Correct, Control or Mitigate Incident:						
<b>IMPACT</b>						
Number of Injuries:			Number of Deaths:			
Were there Evacuations? _____(Y/N)			Number Evacuated:			
Was there any Damage? _____(Y/N)			Dollar Amount of Damage: (approx.)			
Medium Affected: (Air, Surface Water, etc.)			Description:			

**Spill Response Notification Form (page 3 of 3)**

Other Information about Medium:		
<b>ADDITIONAL INFORMATION</b>		
Any Information about the incident not recorded elsewhere in the report:		
<b>CALLER NOTIFICATIONS</b>		
NRC: _____(Y/N)	US DOT: _____(Y/N)	GA EPD: _____(Y/N)
EPA: _____(Y/N)	Fire Dept: _____(Y/N)	Police: _____(Y/N)
Other: ____ (Y/N) If yes, then describe:		
Name of Persons Notified:		
Additional Instructions or Recommendations made by notified officials:		

Complete Form In Inpath, DO NOT FILL OUT PAPER COPY.  
 See link: <http://sp365/sites/OPCENV/ENVREGADMIN/SitePages/Home.aspx>  
 Click on Environmental Incident Report Template on the Left Column.



### OPC ENVIRONMENTAL INCIDENT REPORT FORM

Requestor Information

Reporting Associate:: \_\_\_\_\_ Date of Report: \_\_\_\_\_  
 Associate Number: \_\_\_\_\_ Extension:   
 Department: \_\_\_\_\_

Incident Information

Facility: \_\_\_\_\_  
 Location:   
 Description of Event:   
 How identified: Select...  
 Date and Time of Incident:    
 Date and Time Incident identified:    
 Type of Incident:  Spill  
 Air Release  
 Other  
 Material Involved:  Oil Type:   
 Hazardous Material Type:   
 Hazardous Waste Type:   
 NOX Type:   
 Other

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Incident Report  
 Attorney – Client Privileged Communication

# **HARTWELL ENERGY FACILITY RESPONSE PLAN**

## **APPENDIX C**

SPCC Plan

## **SPILL PREVENTION, CONTROL AND COUNTERMEASURES PLAN (SPCC)**



**Oglethorpe Power Corporation**  
**Hartwell Energy Facility**  
415 Smith-McGee Highway  
Hartwell, Georgia 30643

April 2013

Hartwell Energy Facility

## EXECUTIVE SUMMARY

The Plan that follows has been prepared to reflect the Oglethorpe Power Corporation (Oglethorpe Power) Hartwell Energy Facility Environmental Policies as part of Oglethorpe Power's commitment to meet federal, state, and local spill prevention requirements. The plan is designed to address potential petroleum spills that are Oglethorpe Power's responsibility at the facility located in Hartwell, Georgia. The Hartwell Energy Facility includes 8 aboveground storage tanks, some of which store petroleum products as summarized in Table 1. Additionally, the Plan also covers the maintenance, surveillance and spill response planning for an off-site and on-site buried fuel oil supply line.

The requirements of 40 CFR 112 establish the minimum elements of a Federal Government defined Oil Spill Prevention, Containment, and Countermeasure program (SPCC) for owners and operators of non-transportation related onshore and offshore facilities. 49 CFR 195 describes safety standards and reporting requirements for pipeline facilities used in the transportation of hazardous liquids. The SPCC requirement was created to allow each owner or operator of a facility that has the potential of releasing a harmful quantity of oil to navigable waterways to describe their plan to avoid material losses of oil and damage to the environment.

In addition to these requirements, Oglethorpe Power has included elements of its operational programs that are relevant to the prevention of petroleum product spills. Secondly, this plan is also focused upon safe containment of those spills that cannot be prevented. The third phase of this plan addresses countermeasures that can be readily undertaken at the facility, if the containment fails, thereby minimizing any required oil/chemical spill response that must be taken for spills into or upon the navigable waters of the US or releases into the environment.

The original facility SPCC plan was adopted May 17, 1994 and has been reviewed and revised periodically as required. The current dated revision supersedes all previous versions.

Hartwell Energy Facility

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#### **Appendix D – Worksheets**

Worksheet 1	SPCC Inspection Checklist and Schedule
Worksheet 2	SPCC Training Log (Sample)
Worksheet 3	Environmental Incident Report Form
Worksheet 4	Spill Response Procedure for Oil and Petroleum Products

#### **Appendix E – Record of Review and Revisions**

Hartwell Energy

**CROSS REFERENCE TABLE FOR REGULATORY REQUIREMENTS**

<b>Spill Prevention Control and Countermeasure (SPCC) Plan 40 CFR 112</b>			
<b>Required SPCC Document Section</b>	<b>Section 40 CFR</b>	<b>Where to find materials in this Document</b>	
		<b>Section</b>	<b>Title</b>
Certification by Registered PE	112.3 (d)	1.4	Professional Engineer Certification
Facility maintains copy of plan on site	112.3 (e)	1.5	Purpose of Plan
Reporting Non-Compliance to Regional Administrator	112.4 (a)	4.4.2	External Notification
Reporting Non-Compliance to State Agency	112.4 (c)	4.4.2	External Notification
Amendment of SPCC Plans by Owners and Operators	112.5 (a, b, c)	Appendix E	Record of Reviews / Revisions
Preparation and Self-Certification of Plan Requirements	112.6	N/A	
Full Approval by Management with the Authority to Commit Resources	112.7	1.3	Management Approval
Provide Cross-Reference Table if use Format Different than Specified	112.7		Cross Reference Table
Discuss Facility Conformance with Part Requirements.	112.7 (a)	1.5	Purpose of Plan
Prediction of Spill Direction; Rate of Flow; Total quantity of oil that could be discharged	112.7 (b)	Table 3 Figure 4	Spill Prediction Site Surface Flow Directions
Provide Appropriate Containment For Onshore Facilities	112.7 (c) (1) (i-vii)	2.1	Facility Operations
If No Compliance with 112.7 (c) (1): Demonstrate Impracticability, Conduct Periodic Integrity and Leak Testing, Develop Contingency Plan, Provide Written Commitment to Manpower	112.7 (d)	N/A	
Conduct inspections and tests per written procedures; Keep signed records for 3 years	112.7 (e)	3.3.1 3.3.3	Inspections Record Keeping
Train Oil-handling Personnel on: - O&M of Equipment - Discharge Procedures - Applicable Regulations - General Facility Operations - Contents of SPCC Plan	112.7 (f) (1)	3.3.4	Personnel Training
Designate Person Accountable for Discharge Prevention	112.7 (f) (2)	4.2	Facility Response Coordinator
Conduct Discharge Prevention Briefing Annually for Oil-handling Personnel	112.7 (f) (3)	3.3.4	Personnel Training
Security (exclude oil production facilities)	112.7 (g)	2.3	Security
Facility fully fenced	112.7 (g) (1)	2.3	Security
Securely locked closed any valves when in non- operating or non-standby status	112.7 (g) (2)	2.3	Security

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<b>Spill Prevention Control and Countermeasure (SPCC) Plan</b>			
<b>40 CFR 112</b>			
<b>Required SPCC Document Section</b>	<b>Section 40 CFR</b>	<b>Where to find materials in this Document</b>	
		<b>Section</b>	<b>Title</b>
Oil pump starter controls in non-operating status are locked or are only accessible to authorized personnel	112.7 (g) (3)	2.3	Security
Loading/unloading connections of oil pipelines are capped/blank-flanged if not in service or on standby status	112.7 (g) (4)	2.3	Security
Facility lighting provided	112.7 (g) (5)	2.3	Security
Facility tank car and tank truck loading/unloading (onshore)	112.7 (h)	3.1.3	Loading and Unloading
- If no catchment basin, provide a quick drainage system that holds the largest compartment of truck	112.7 (h) (1)	3.1.3	Loading and Unloading
- Provide an interlocked warning light, physical barrier, or warning signs to prevent premature vehicle departure	112.7 (h) (2)	3.1.3	Loading and Unloading
- Vehicles inspected prior to transfer and departure	112.7 (h) (3)	3.1.3	Loading and Unloading
Evaluate field-constructed aboveground tanks for risk of brittle fracture.	112.7 (i)	3.3.2	Testing
Conformance with State Requirements	112.7(j)	1.5	Purpose of Plan
Requirements to meet the "Qualified Oil-Filled Operational Equipment" Guidance	112.7(k)	3.3.2	Testing
Facility Drainage (onshore)	112.8 (b)	3.2	Oil Spill Prevention Structures and Equipment
- Drainage from dike areas is restrained by manual valves or other means	112.8 (b) (1)	3.2	Oil Spill Prevention Structures and Equipment
- Valves used for drainage of diked area are manual open/closed design	112.8 (b) (2)	3.2	Oil Spill Prevention Structures and Equipment
- Plant drainage from undiked areas flows into ponds, lagoons or catch basins that are not subject to flooding	112.8 (b) (3)	3.2	Oil Spill Prevention Structures and Equipment
- If not in compliance with 112.8 (b)(3), equip all final discharge points with a diversion system to retain oil in facility	112.8 (b) (4)	N/A	
- Use of water treatment units	112.8 (b) (5)	2.1	Facility Operations
Bulk Storage Tanks (onshore)	112.8 (c)	2.1	Facility Operations
- Tank material and construction are compatible with stored material	112.8 (c) (1)	2.1	Facility Operations
- All containers have secondary containment for the largest single tank plus an allowance for precipitation	112.8 (c) (2)	3.2	Oil Spill Prevention Structures and Equipment
- Drainage of rainwater from diked areas: normally closed; rainwater inspected; valve opened and closed under supervision; maintain records	112.8 (c) (3)	3.2	Oil Spill Prevention Structures and Equipment
- Underground metallic storage tanks: corrosion protection and leak tested	112.8 (c) (4)	N/A	

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<b>Spill Prevention Control and Countermeasure (SPCC) Plan</b>			
<b>40 CFR 112</b>			
<b>Required SPCC Document Section</b>	<b>Section 40 CFR</b>	<b>Where to find materials in this Document</b>	
		<b>Section</b>	<b>Title</b>
- Partially buried metallic tanks: corrosion protection on buried portion	112.8 (c) (5)	N/A	
- Aboveground tanks are integrity tested regularly and after repairs	112.8 (c) (6)	3.3.2	Testing
Internal heating coils	112.8 (c) (7)	N/A	
- Tanks are fail safe engineered with liquid level alarms, pump cutoff devices, direct signal, or fast response	112.8 (c) (8)	2.1	Facility Operations
- Frequent monitoring requirements for effluent treatment systems	112.8 (c) (9)	3.1.1	Storage
- Visible oil leaks are promptly corrected	112.8 (c) (10)	2.1	Facility Operations
- Secondary containment for mobile / portable oil storage tanks	112.8 (c) (11)	3.1.1	Storage
Facility transfer operations, pumping, and in plant processes (onshore)	112.8 (d)	3.1.1	Storage
- Buried pipelines are protectively wrapped and coated if warranted	112.8 (d) (1)	3.1.1	Storage
- Not in service pipelines are capped, blank-flanged and marked	112.8 (d) (2)	3.1.1	Storage
- Requirements for pipe supports	112.8 (d) (3)	3.1.1	Storage
- All aboveground valves and pipelines are inspected regularly	112.8 (d) (4)	3.3.1	Inspections
- Vehicles entering facility are warned verbally or by signs piping	112.8 (d) (5)	3.1.1	Storage
Certification of the Applicability of the Substantial Harm Criteria Checklist	112.20	FRP	Appendix E of FRP

Hartwell Energy Facility

## 1. GENERAL INFORMATION

### 1.1 Facility Information

The Hartwell Energy Facility lies within a site of approximately 300 acres. It is located about eight miles southeast of Hartwell, Georgia and approximately 1.0 mile west of the Savannah River. It was constructed in 1994. The Hartwell Energy Facility is a peak energy generation facility and uses natural gas with supplementary No. 2 fuel oil for firing two combustion turbines, generating electricity during peak demand periods. It can receive natural gas from a Williams/Transco owned pipeline, No. 2 fuel oil from Plantation Pipeline Company through an Oglethorpe Power Corporations owned pipeline and No. 2 fuel oil by tank truck. It stores No. 2 fuel oil on site in two tanks. Pertinent facility information is provided below:

Company Name:	Hartwell Energy Facility
Owner/Operator	Oglethorpe Power Corporation 2100 East Exchange Place Tucker, Georgia 30084
Facility Street Addresses:	415 Smith-McGee Highway Hartwell, Georgia 30643
Facility Mailing Address:	415 Smith-McGee Highway Hartwell, Georgia 30643
Latitude/Longitude:	(b) (7)(F), (b) (3)
Facility Phone Number:	706-376-7010

Operation of the two combustion turbines requires the firing of either natural gas or No. 2 fuel oil which produces steam from injected demineralized water. The steam thus drives the turbines and in turn produces the electrical energy. A significant release or spill from the Hartwell Energy Facility has the potential for entering the environment and further, the Savannah River. A site location map is provided on Figure 1 and site topography is presented in Figure 2.

The primary on-site buildings include the control/administration/storage building, a separate storage building, the ultrafiltration building, foam (fire suppressant) building and the fire water pump house. The uncovered yard(s) are mostly paved with concrete, gravel or asphalt and are used as driveways and/or for temporary staging of equipment, recyclables and maintenance equipment. Small quantities of gasoline, oils and other chemicals are used for routine vehicle servicing and maintenance.

## Hartwell Energy Facility

The Hartwell Energy Facility is staffed Monday to Friday from 7:00 AM to 5:00 PM and at other times if the combustion turbine units are operating. There are currently seven (7) employees at the site.

No. 2 fuel oil and diesel fuel are stored in aboveground storage tanks (AST's). Secondary containment is provided for all AST's.

## 1.2 Facility Response Information

The Facility Response Coordinator is responsible for the Spill Prevention Program, including employee training and awareness. Specifically, the Facility Response Coordinator is responsible for coordinating and leading spill response efforts and spill response training; obtaining necessary management approvals; ordering, inspecting, and inventorying necessary equipment and materials; and contracting with and securing outside services as necessary.

### Facility Response Coordinator

Mike McCollum

Work Phone: 706-376-7010

Mobile Phone: (b) (6)

Home Phone:

First Alternate: Kenn Pittman – Combustion Turbine Technician

Work Phone: 706-376-7010

Home Phone: (b) (6)

### Spill Prevention Targets

Navigable waters of the US: Savannah River, east of facility

Marine: Savannah River, east of facility

Fish and wildlife sensitive environments: Land surfaces, east of facility

Hartwell Energy Facility

### 1.3 Management Approval

This SPCC plan is a carefully conceived plan, prepared in accordance with good engineering practices, and has the full approval of Oglethorpe Power's management at a level with the authority to commit the necessary resources. This SPCC plan is intended to be implemented to the fullest extent feasible, as described herein, and will be reviewed and evaluated by a professional engineer at least once every five years. This plan replaces all previous plans as of the date shown below on this approval sheet. Further, this Plan will be updated and amended if the facility design changes or has a discharge of more than 1000 gallons of oil/petroleum product in a single discharge or more than 42 gallons in each of two discharges within a 12-month period.

By my signature below, I certify that manpower, equipment, and materials will be provided to expeditiously control and remove any quantity of oil that may be discharged. The facility will be maintained and operated in accordance with this Plan.

Signature: Richard D. Wallen  
Name: Richard D. Wallen  
Title: CT Fleet Manager  
Date: 9-2-14

Hartwell Energy Facility

**1.4 Professional Engineer Certification**

I hereby attest that: (i) I am familiar with the requirements of 40 CFR Part 112; (ii) that an agent of mine has visited and examined the facility; (iii) that the Spill Prevention Control and Countermeasure (SPCC) portion of this Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR Part 112; (iv) that procedures for required inspections and testing have been established; and (v) that the plan is adequate for the facility.

This certification does not relieve the owner/operator of the responsibility to bring and keep this facility in compliance with this Plan.

Samir M. Najim

Samir M. Najim, PE  
Senior Environmental Specialist  
Oglethorpe Power Corporation  
State of Georgia Registration No. 25840

2/3/2010

Date

(seal)



### **1.5 Purpose of the Plan**

This SPCC Plan has been prepared in accordance with the Code of Federal Regulations 40 CFR Part 112, which deals with prevention of oil discharge from non-transportation facilities to surface water and is administered by the United States Environmental Protection Agency and 49 CFR Part 195, which deals with the safe operation of a hazardous liquid pipeline and is administered by the Pipeline and Hazardous Materials Safety Administration (PHMSA). A copy of this plan will be maintained on site. The purpose of the SPCC Plan is to outline procedures to prevent the discharge of petroleum products into the environment, especially to surface water. This type of discharge is specifically prohibited by law if it presents an imminent and substantial danger to public health and the environment when discharged into or upon navigable waters, or causes a film, sheen, or discoloration of the water surface or upon adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. The prevention aspects focus upon potential operational errors and equipment failures and provide guidance to avoid associated releases.

Additionally, this Plan creates mechanisms for countermeasures which may be applied to discharges. The aims of the SPCC plan are to prevent a release, contain a release that cannot be prevented, and to take immediate countermeasures for a release that is not contained thereby minimizing any impact to human health, the environment, and employee safety or the safety of adjoining neighbors.

The State of Georgia has no applicable spill prevention and response regulations which are more stringent than the Federal SPCC requirements addressed in this SPCC Plan.

### **1.6 Record of Reviews/Revisions**

This Plan shall be amended within sixty days of a change in the facility's design, construction, operation, or maintenance which materially affects the facility's potential for the discharge of petroleum products into surface waters or the environment. The Plan shall also be reviewed and evaluated at least once every five years to determine a need for amendment. As a result of this review and evaluation, the facility owner shall amend the SPCC Plan to include more effective spill prevention and control if technology has been developed that will significantly reduce the likelihood of a spill event at the facility and the technology has been field proven. In addition to these conditions, it is recommended that the SPCC Plan be amended if procedural or control system failures result in releases, as this would indicate deficiencies in the existing SPCC Plan. See Appendix E for the record of reviews of the Plan.

If based on this review, no changes are necessary; a statement to that effect will be made by Oglethorpe Power's management. If amended, the record of revision will be updated to reflect what changes were made. The record of revision is located in Appendix E. All technical amendments to the Plan will be certified by a Professional Engineer registered in

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the State of Georgia. Administrative changes such as changes to the emergency contact list which do not affect the technical or engineering aspects of the SPCC Plan do not require Professional Engineer certification.

## 2. FACILITY DESCRIPTION

The Hartwell Energy Facility is located approximately eight miles southeast of Hartwell, Georgia and includes the following:

### **Hartwell Energy Facility**

- Five (5) aboveground petroleum storage tanks;
- Other aboveground storage tanks containing water, compressed or cryogenic gases and various other products necessary to the facility's operation;
- 55 gallon drums containing various oils, lubricants, and other chemicals located in the on site storage building;
- Smaller (<55 gallon) containers for the on-site storage of vehicle fuel, used oil, cleaners and various maintenance chemicals (*Note, as these containers are less than 55 gallons in capacity each, they are not subject to the requirements of the SPCC rules*); and
- Buried 12" Fuel Oil transport pipeline.

One electrical transformer located on site is owned and maintained by Hart EMC. A 485-gallon transformer is located in the northeast corner of the Equipment Yard. This transformer is not part of the Hartwell Energy Facility, and is maintained by Hart EMC, is not discussed further in this plan. Hart EMC would be contacted if a spill occurs from this transformer.

The following Sections provide a facility description with respect to the use and storage of petroleum products, past spills and facility security.

### 2.1 Facility Operation

The (b) (3), (b) (7)(F) ), some of which are used to store oils and other petroleum products such as diesel fuel and No. 2 fuel oil. The tank material and construction of all oil-filled containers are compatible with the container. The other tanks contain other liquids including water, antifreeze and bulk compressed and/or cryogenic gases. During a spill event, information regarding the quantity and type of material being released is crucial in order for quick and effective countermeasure action(s) to be provided. To provide pertinent and concise information, a description of each oil or petroleum product storage tank is provided in Table 1 and briefly summarized below. Identification and locations of the facility storage tanks and other site features are shown on Figures 3, 4, and 5.

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**Diesel Fuel Storage**

There is one 250 gallon diesel fuel storage tank used to supply the emergency fire pump diesel engine. The steel tank is located inside the fire pump building and has concrete secondary containment. Operations personnel receive training in the procedures for safe operation of the relevant equipment. Evidence of spills or leaks can be observed routinely by operating personnel during daily inspections.

**No. 2 Fuel Oil Storage Tanks**

The Hartwell Energy Facility utilizes two 2.1 million gallon aboveground No. 2 fuel oil storage tanks, constructed of single walled carbon steel. The tanks are located within a lined earthen containment area with a containment capacity of 3.2 million gallons. The tanks share this containment area with a third 2.1 million gallon tank which contains demineralized water. The contents of the two No. 2 fuel oil tanks are individually controlled but contents may be transferred between the two tanks for facility purposes of inventory control and management. The tanks' contents are observed electronically from the administration building along with fail safe overflow protection and high level alarms. The tanks are observed and inspected daily for problems, spills and leaks during routine documented facility Walkdown Checklist tours. Operations personnel receive routine ongoing training in the proper and safe loading, unloading, maintenance and spill response activities associated with these tanks.

The tanks may be filled from an off-site pipeline or by on-site tank truck delivery. Formalized and documented operational procedures for both filling processes are followed by operational personnel. Copies of the transfer procedures, HEF-OP(JB)-01 and HEF-OP(JB)-02, are maintained on-site in the administration building.

Weather related precipitation that enters the containment area is pumped via underground piping to a permanently installed on site ultrafiltration unit for cleaning and reuse as raw feed water for the demineralization process. The demineralized water is then stored in the contained 2.1 million gallon demineralized water tank which resides alongside the two 2.1 million gallon No. 2 fuel oil tanks.

**Units 1 and 2 Oil Reservoirs**

The facility's two electrical generating units are mounted above a sloped concrete pad. As part of their construction, each generating unit has an 8,000 gallon reservoir of recirculating lubricating oil which is used in their operation. Each unit's oil reservoir has automated level sensors and alarms to warn of leaks or spills that may be in progress. These alarm situations are observed during daily Walkdown Checklist tours conducted by facility operations personnel. The sloped surface of the concrete pads directs any rainwater or leaks or spills from the oil reservoirs or the unit(s) to floor drains which in turn lead to

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an underground collection sump. The contents of the collection sump are then pumped to the ultrafiltration unit for cleaning and reuse raw feed water for the facility's demineralizer.

### **Portable Containers**

55-gallon drums containing various oils and lubricants are located in the on-site storage building. Daily observations of these areas are made by operations personnel. One mobile 250 gallon empty tank is also located at the Facility.

### **Site Transformers**

Each electrical generating unit utilizes several oil filled transformers. The transformers are located within walled concrete secondary containment. The transformers and their contents are listed in Tables 1 and 3 of Appendix B. The location of the transformers is shown on Figures 3, 4, and 5 of Appendix C.

### **Buried 12" Diesel Supply Line**

Hartwell Energy owns and operates an 8,520' X 12" buried steel pipeline. The pipeline is used to transfer Fuel Oil from the Plantation Pipe Line Company terminal located at the intersection of U.S. Highway 29 and County Road 539 to the plant site storage tanks. The pipeline runs from the terminal thence adjacent to County Road 539 via easements granted from property owners. It then traverses beneath State Highway 181 onto the Hartwell Energy Facility site whereby it emerges at a tie-in point. It then runs underground and terminates at the two aboveground Fuel Oil storage tanks. The off-site pipeline is buried to a minimum depth of 48" and transitions on-site to a 24" depth. It is protected with sacrificial anodes and externally coated with coal tar enamel throughout. Transfers of Fuel Oil are accomplished using Transfer Procedure HEF-OP(JB)-02, a copy of which is maintained on site in the administration building. Coordination of activities involving both Plantation and Oglethorpe Power personnel are required whenever fuel is transferred through the pipeline. Fuel levels are carefully monitored, both visually and electronically.

## **2.2 Spill History**

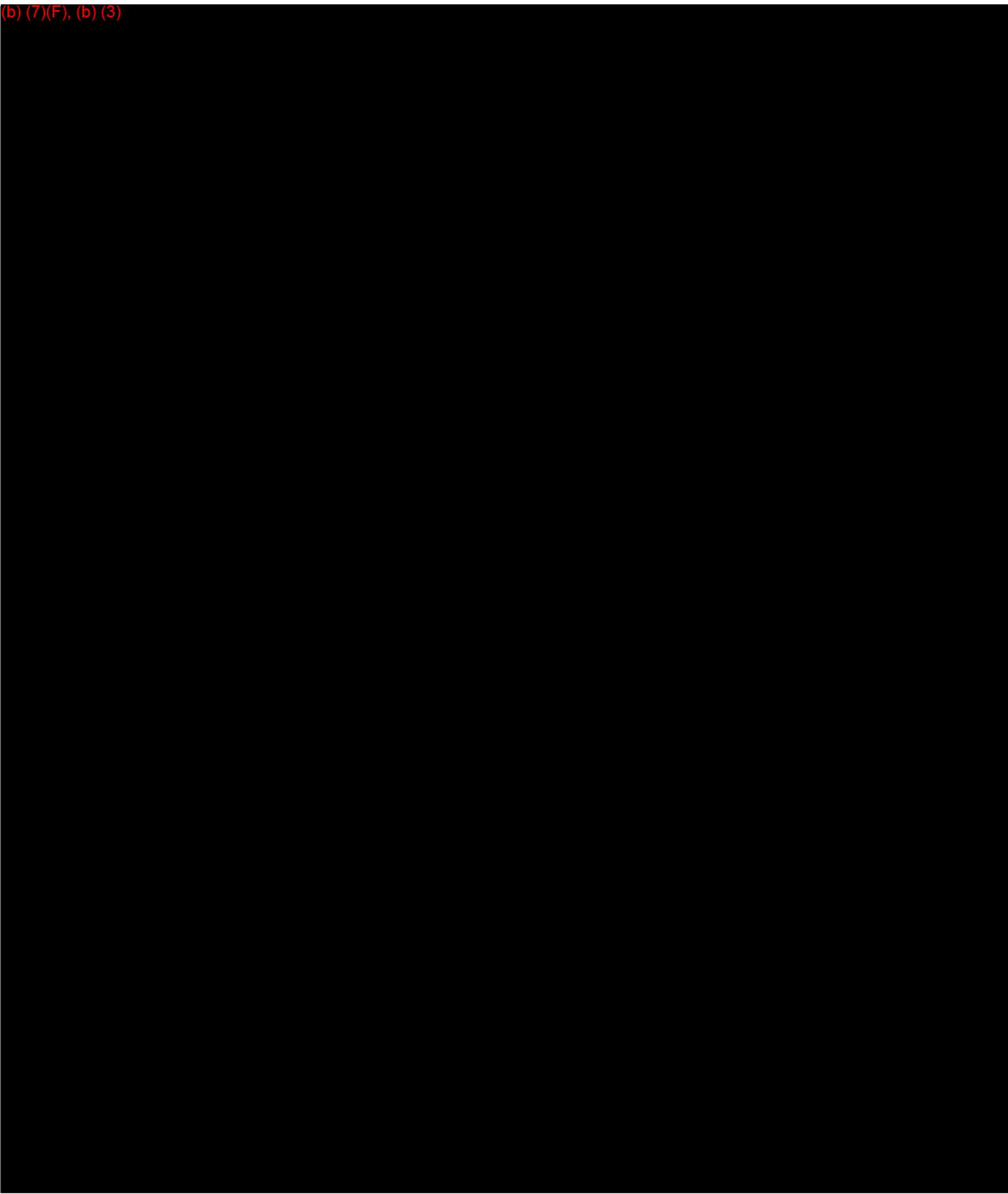
There have been no reportable spills or releases from Hartwell Energy at any time in its operation. Table 2 in Appendix B is available for the accumulation and presentation of data should a future spill or release event occur.

## **2.3 Security**

(b) (7)(F), (b) (3)



(b) (7)(F), (b) (3)



### 3. OIL SPILL PREVENTION

This section of the SPCC plan provides procedures that are to be followed to help prevent spills of oils. The prevention of spills shall be viewed as the most important concept in this plan. If spills could be prevented entirely, spill response would be unnecessary and the remainder of the information presented in this plan would be of lesser importance. As a result, the prevention of spills holds enormous safety, health, environmental, material, monetary, operational, and public relations benefits. The spill prevention program described in this section consists of the following elements:

- General operating procedures for spill prevention;
- Spill prevention structures and equipment; and
- Inspection, surveillance and training.

#### 3.1 General Operating Procedures for Oil Spill Prevention

This section provides a selected set of general operating procedures, which shall be followed to help prevent spills from occurring. The operating procedures in this section are presented below in the following functional categories:

- Material storage;
- Material handling;
- Material loading and unloading; and
- Preventive maintenance.

##### 3.1.1 Storage

The storage of petroleum/oil includes receiving, safe storage and dispensing activities. Storage of petroleum/oil must be protective of human health and the environment. All products are stored in containers that are compatible with the products and conditions of storage. All secondary containment areas are sufficiently impervious to oil and are constructed to hold, at a minimum, the largest single container capacity, plus sufficient room to allow freeboard for precipitation.

##### Aboveground Storage Tanks (ASTs)

The two 2.1 million gallon fuel oil ASTs are located in an area where there is minimal vehicle traffic and in a diked area. The two 2.1 million gallon fuel oil ASTs consist of single wall carbon steel. The tanks are located within a lined earthen containment area with

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a containment capacity of 3.2 million gallons with no dike drain valves. The tanks share this containment area with a third 2.1 million gallon tank which contains demineralized water. The 250-gallon diesel fire pump tank and appurtenances are located inside a concrete secondary containment dike inside the Fire Pump House Building.

### Piping

The Facility aboveground fuel oil piping consists of ground level piping in the containment of the main tank farm, at the fuel unloading area, and short runs adjacent to the each of the combustion turbines. Underground piping from the ASTs to the combustion turbines consists of single walled carbon steel that is cathodically protected. There is no overhead fuel oil piping at the Facility. Fuel oil piping in the main tank farm consists of single wall carbon steel piping contained in the main tank farm dike area. Spills from this piping would be contained in the main tank farm dike area, because the main tank farm dike area has no drain valves. Fuel oil piping at the fuel unloading area consists of short runs of single wall carbon steel piping protected by curbing and bollards. Spills from this area could remain in the curbed area or flow to the storm drain to the south which leads to the facility detention pond. Spill kits are located in the Foam House Building to the south of this area. Fuel oil piping at the combustion turbines consists of single wall carbon steel piping, with short runs outside the turbines. Spills from piping inside the turbines would be contained in the turbine sump areas which would be pumped to the oil/water separator (OWS). Spills outside the units could remain in the general area or flow to the drainage path ways to the south which lead to the facility detention pond. Spill kits are located in the Foam House Building to the southeast and in the Warehouse to the southwest. Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Fuel oil tank truck deliveries occur only under the supervision of Facility personnel. Fuel oil tank truck transfers are manned continuously. Outside contractors with vehicles are warned about ground level fuel oil piping at the fuel oil unloading area and at the combustion turbines during the Facility orientation.

### Oil-Filled Operational Equipment (OFOE)

OFOE on site include the transformers and the Recirculating Oil Reservoirs for each unit. All Facility transformers have concrete secondary containment with no drain valves. The Recirculating Oil Reservoirs for each unit are located on a concrete pad that drains to the combustion turbine sump which would be pumped to the OWS in case of a spill. There is also one transformer on site which belongs to Hart EMC and is not considered part of the Hartwell Energy Facility. The Hart EMC transformer does not have secondary containment but absorbent materials and spill kits are located at the Facility which could be used to contain a spill from this transformer until Hart EMC personnel respond.

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General storage requirements and practices are described below:

- Material Safety Data Sheets (MSDS's) for all stored materials are readily available in the administration building.
- Fixed piping that is not used is purged and isolated with blanks.
- The materials of construction of tanks, containers, pipes, fittings, valves, gaskets and other equipment used to handle oil related products must be selected to prevent premature failure through corrosion, chemical reaction or other result of incompatible material selection.

Storage areas must be maintained and kept orderly as described by the following requirements:

- Small leaks and incidental spills must be cleaned up immediately. The causes of these spills must be investigated. Additional measures, which may include revision of this spill plan should be taken as appropriate.
- Spilled material, absorbent materials, and any other contaminated residues resulting from the cleanup must be containerized and subsequently characterized for proper disposal.
- Smoking, and open flames are not permitted in flammable or combustible material storage areas.
- When using personal heating devices in a flammable storage area, use a system that does not introduce an ignition source.
- Only the use of intrinsically safe radios and cell phones is allowed flammable or combustible material storage areas.
- Flammable materials must not be stored with incompatible materials.
- Flammable or combustible material should be stored in original containers or within chemically compatible containers.
- Inside storage is preferred over outside storage where practical.
- Vehicle storage areas should be periodically checked for leaks onto the ground surface and repairs made accordingly.

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### 3.1.2 Handling

The handling of petroleum/oil refers to their use in work areas, which includes activities after storage and before disposal. Requirements related to handling are as follows:

- Small and incidental spills must be cleaned up immediately.
- All spills require investigation and corrective measures as appropriate.
- Hoses, connections, containers and equipment should be capped or secured when not in use.
- Spare containers, cleanup materials for small spills, and small leak repair tools and materials must be available at storage areas.
- Clearance for free passage for emergency access for people and equipment is to be provided in storage areas.
- Areas must be kept neat and orderly.
- Pallets, drum racks, funnels, closures and other material handling equipment must be provided as needed.

### 3.1.3 Loading and Unloading

Spills can occur during the transfer of bulk liquids between fixed storage, pipeline transfers and truck tanks. Detailed specific procedures for loading and unloading operations for tank trucks and pipeline transfers can be found in copies of the facility transfer procedures, HEF-OP(JB)-01 and HEF-OP(JB)-02, which are maintained on site in the administration building.

The procedures are summarized below.

- The entire process of filling and emptying tanks must be observed by a vehicle operator or pipeline representative. The operator shall coordinate with Hartwell Energy Facility personnel prior to offloading material.
- Load capacity limits for tanks must be observed.
- Pipes and hoses used for transfers, loading, and unloading must be connected tightly and should not leak during the transfer.
- Hoses and other movable lines must be arranged to allow inspection along their entire length.

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- Transfer hoses and equipment must be well lit during transfers.
- Transporters are required to comply with applicable transportation standards, including those for vehicles, tanks and pipelines.
- Loading and unloading must be done in approved locations only.
- Hoses provided by the transporter should be capped when not in use.
- Portable containments and spill control equipment in the form of buckets, drip pans, connection enclosures, absorbent pads, storm drain covers and other small spill and leak containments should be available.
- Vehicle parking brake(s) must be set and at least one set of wheels must be chocked.
- The vehicle engine is to be shut off unless required to be on to operate pumps.
- The transfer is to be immediately stopped and secured if leaks, spills, or unsafe conditions are observed.

#### 3.1.4 Preventive Maintenance

Preventive maintenance and repairs are critical to preventing spills related to material or equipment failures. Inadequate maintenance of any spill prevention containment or equipment can overcome the best operations procedures and design. The following are selected general spill prevention procedures related to preventive maintenance.

- Facility must be kept in good repair and operated in an orderly manner.
- Equipment, including above and below ground piping, must be periodically inspected, tested and properly maintained.
- Tanks, piping, fittings and safety devices must be well-constructed and in sound condition.
- Tank foundations and supports should be visually inspected for excessive gaps between the tank and foundation, ground or other bottom support, as well as crumbling or excessive cracking.
- Riveted or bolted tanks may seep from joints. These leaks must be corrected immediately.
- The buried 12-inch steel pipeline shall be inspected and maintained according to the Facility's Hazardous Liquid Pipeline Operations and Maintenance Manual.

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### **3.2 Oil Spill Prevention Structures and Equipment**

This section includes a description of the types of oil spill prevention structures relevant for the facility. The oil and petroleum storage areas have sufficient secondary containment structures. Containment volumes for the respective petroleum storage units are provided on Table 3.

Containments are designed and used to prevent spills by physically containing spilled materials. These include catch basins and diversions, tank and pump trucks, oil-water separators, sorbents and drip pans, as well as tarpaulins and foils. Containments may be constructed with dikes, berms, curbing, culverts, gutters, trenches, sumps and pumps, absorbent materials, retention ponds, weirs, booms and other barriers or preventive systems. The materials used must be compatible with and sufficiently impervious to contain the spilled material. Containments must also comply with the applicable standards for material volume, and precipitation volume. Containment construction methods used include poured concrete walls, concrete block walls, containment curbs, containment pits and trenches, and earthen berms.

Containment sumps are tanks and pits that collect gravity drainage and are emptied by gravity or pumped flow. Designs vary widely, but generally consist of a collection tank, level detector, pump, and level-actuated pump control to empty the contents of the receiving tank. Sumps may be used as full or partial containments as appropriate.

Concrete block structures may leak at the joints between blocks, and are subject to damage from the expansion of water that penetrates into the block. Concrete block structures should be painted to reduce leakage and deterioration over time. Pits and trenches must be properly cleaned to maintain flow and capacity, and grates and covers must be maintained to prevent pedestrian hazards.

Where containments are not practical, diversions may be used to direct drainage as needed. Drainage controls may be needed to direct spilled materials to a retention basin, or direct storm water away from equipment or material storage areas. Diversions can include curbs, trenches, catch basins, or retention ponds that are used to redirect or retain spilled materials. Provisions to return spilled materials to the source facility should be provided where practical.

Weather related precipitation that enters the containment area is pumped via underground piping to a permanently installed on-site ultrafiltration unit for cleaning and reuse as raw feed water for the demineralization process. The demineralized water is then stored in the contained 2.1 million gallon demineralized water tank which resides alongside the two 2.1 million gallon No. 2 fuel oil tanks.

Storm water that accumulates in secondary containment areas is visually examined for the presence of oil before being pumped outside of the secondary containment. If there is no evidence of an oil release or spill, the contained rainwater is released to the site storm

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water system. Storm water that has an oily sheen is not released but is routed to the facility's ultrafiltration unit for further processing and the cause of the leak or spill is investigated and resolved. Records are maintained of all containment inspections and storm water discharges, including when the discharge valve was opened and closed, the quantity of water released, and the person responsible for assuring compliance. These records will be kept on site and made available upon request.

Oil-water separators rely on the difference in density between water and oils, which are generally lighter than water. Transformer and other synthetic oils may not separate from water, nor will many other liquids. Oil-water separators are typically rectangular boxes with internal baffles or weirs that operate on a flow-through basis. Free oil, water, and entrained oil droplets are directed to a quiescent compartment that collects oil on top and allows clean water underflow. Designs may take the form of API separators, plate separators, and multi-stage separators. The operation of oil-water separators requires frequent observation and maintenance, since the accumulation of oil and sludge can result in the undesired discharge of oil. Oil-water separators will be used as required to prevent the discharge of containment, equipment washdown, tank cleaning, or other oily wastewaters.

Spill minimization equipment such as spill kits is available at locations within the site most likely to experience minor spills. Spill kits and equipment are provided in the following locations:

#### **Hartwell Energy Facility Spill Response Equipment and Kit Locations**

- Adsorbent Pads in Maintenance Shop Area
- Kit(s) in Storage Building
- Kit(s) in Foam House
- Hay Storage Area Southwest of Storage Building
- Forklift in Storage Building
- Spare Pumps in Storage Building
- Mobile Tank at Storage Building

### **3.3 Inspections, Tests, Records, and Training**

An effective inspection (including necessary testing) and maintenance program is critical to preventing spills and environmental incidents. The main objective of such a program is to uncover conditions that could cause breakdowns or failures and result in spills or environmental impacts. Systemic adjustments, repairs or part replacements as necessary are all components of a successful system. The record keeping system then documents any incidents and repairs and provides the means to analyze for trends.

### 3.3.1 Inspections

The facility conducts site, tank and equipment inspections and quality control checks on a routine Daily Plant Walkdown, weekly, monthly, quarterly and annual basis, depending on the item being inspected. Inspections are summarized in the SPCC Inspection Checklist and Schedule included as Worksheet 1. The frequency of inspections is noted in the Schedule included in Worksheet 1. Inspections include tanks, Oil Filled Operational Equipment (OFOE), aboveground piping, exposed buried piping, buried piping, pipe supports, response equipment, secondary containment, and hydrant system checks. All exposed buried piping is inspected as part of the Daily Plant Walkdown and or the Quarterly fuel oil Maintenance inspections. Any deficiencies noted during the inspections are immediately communicated for further action.

Aboveground tanks, dike walls, valves, valve glands and bodies, air eliminators, metal surfaces, flange joints, pipelines, and pipeline supports are visually inspected for leakage on a regular basis. Any defects are immediately reported and are promptly repaired. All aboveground storage tanks are visually inspected (externally) on a daily basis. Items observed include: seams, bolts, gaskets, nozzle connections, valves, connecting pipelines, volume of rainwater in secondary containment and tank foundations and/or supports. Buried piping protected with sacrificial anodes is checked periodically. Any indications of leaks or failures are noted on the form and reported to management for repair. Interiors of tanks are periodically opened, cleaned and inspected per API 653.

Schedules of preventative maintenance of operating equipment or fire extinguishers can be used for the SPCC inspections as well. Any facility preventative maintenance that prompts inspections of all facility and equipment, including those specified in this section, may be used. Inspections may be documented using Worksheet 1 or electronic equivalent.

### 3.3.2 Testing

40 CFR 112.8(c)(6) requires integrity testing for all oil-containing bulk storage containers (except Oil-Filled Operational Equipment [OFOE]). Transformers, hydraulic systems, and oil-filled flow-through process manufacturing equipment are considered OFOE per Section 112.2, and the bulk container requirements of Section 112.8, including integrity testing, do not apply to OFOE. OFOE on site include the transformers and the Recirculating Oil Reservoirs for each unit.

Integrity testing of all outside aboveground storage tanks shall be conducted in accordance with manufacturer's guidance and accepted testing standards, ASTM, API, etc. as required, or whenever a major repair is done to a tank with secondary containment. The facility contracts with outside tank service companies to conduct integrity testing on ASTs in accordance with the regulations and industry standards. Outside tank service companies also conduct brittle fracture evaluations on the No. 2 fuel oil tanks. Inspection and test reports will be kept on file at the facility for the life of each tank.

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The testing must combine visual inspections with another system of non-destructive shell testing, such as ultrasonic testing. However, per US EPA guidance documents and in accordance with Steel Tank Institute (STI) SP001<sup>1</sup>, for well-designed shop-built containers with a shell capacity of 30,000 gallons and under, US EPA generally believes that visual inspection with placement of a barrier between the container and the ground, designed and operated in a way that ensures that any leaks are immediately detected, constitutes equivalent environmental protection for these tanks. The inspection checklists presented in Appendix D are used to record the results of the inspections related to the equivalent environmental protection for these tanks.

EPA also requires that the SPCC Plan is prepared in accordance with applicable industry standards. The STI SP001 standard is applicable for integrity testing of aboveground storage tanks (ASTs). With the exception of the two large No. 2 Fuel Oil tanks, all remaining oil-containing ASTs (including 55-gallon drums and totes) are either OFOE or are elevated, shop-built containers with less than 30,000 gallons in capacity and have secondary containment. These ASTs are considered Category 1 containers per the STI SP001 standard. The following table identifies the testing requirements.

#### Integrity Testing

NUMBERS ON FIG. 3 OR FIG. 5	INSPECTION / TEST	STANDARD	FREQUENCY	Date of Last Test
A1	Authorized External Inspection	API 653, STI SP001	5 Years	September 2009
A1	Authorized Internal Inspection	API 653, STI SP001	10 Years	November 2010
A2	Authorized External Inspection	API 653, STI SP001	5 Years	September 2009
A2	Authorized Internal Inspection	API 653, STI SP001	10 Years	November 2010

### 3.3.3 Record Keeping

All records generated with this Plan, i.e., spill notifications, inspection worksheets, and training records, are maintained by the Facility Response Coordinator for a minimum of three years in the Facility files. Integrity testing results are maintained for the life of the container.

<sup>1</sup> Standard for the Inspection of Aboveground Storage Tanks, SP001, July 2006, 4<sup>th</sup> Edition.  
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### 3.3.4 Personnel Training

It is the responsibility of the Facility Response Coordinator to insure that all appropriate facility personnel are trained in the applicable laws and regulations regarding spills and releases and pollution control; the contents of the SPCC Plan; the Facility Response Plan (FRP); general facility operations; the operation and maintenance of on site equipment to prevent, contain, and effect countermeasures of discharges; and spill response procedures. The level of detail for employee training will depend on the person's level of responsibility for spill prevention and countermeasures and will be given additional training that may include "dry-run" training exercises to ensure a thorough understanding of spill prevention and countermeasures.

Spill prevention and countermeasure training will be conducted at least annually for all appropriate personnel with informal discharge prevention briefings periodically through the year to update employees on changes in the regulations, laws, or in-house procedures.

Personnel who are involved in petroleum transferring/handling activities shall receive initial training and annual refresher training. The following training outline shall be used to provide the training.

- 1) Review of SPCC Plan
- 2) Location of various facilities (on a walking tour)
  - Tank locations
  - Tank truck unloading area
  - Curbs
  - Catch basins and inlets
  - Absorbent and absorbent disposal containers
- 3) Walk through truck unloading procedures
- 4) Manual check of tank level
- 5) Review spill-reporting procedure
- 6) Review inspection checklists
- 7) Discharge Prevention Briefings

It is the responsibility of the SPCC Plan Response Coordinator to insure that annual training of personnel is accomplished to a level of appropriate response. A Hazard Communication program given to each employee provides additional training pertaining to hazardous material awareness. Yearly recurrent training in emergency response will be provided to update the personnel designated as responders.

Training records, electronic or paper, will be maintained by the Facility Response Coordinator for at least three years. A sample of SPCC Training Log is provided as Worksheet 2. Paper records will be maintained if electronic records are not readily available. A copy of the training material will accompany the training record.

#### 4. SPILL RESPONSE PLAN

##### 4.1 Policy

It is Oglethorpe Power's policy to prevent spills and releases of petroleum/oil. If a spill or release occurs, all personnel will respond in accordance with all applicable laws and regulations, manage the spill as best as possible, document the incident, and report the spill to appropriate regulatory agencies. The facility SPCC Plan and/or FRP will be used as guidance for responding to the spill. The safety of employees and the public will have the highest priority in all actions taken in response to a spill.

##### 4.2 Facility Response Coordinator

Name	Title	Office Phone	Cell Phone
Mike McCollum - Primary	O&M Supervisor	706-376-7010	(b) (6)
Kenn Pittman - Alternate	Combustion Turbine Technician	706-376-7010	

The Facility Response Coordinator is accountable for discharge prevention. Additionally, he/she is responsible for investigating his/her operation to determine where spills could occur, and what could result in the event of a spill. The spill direction should be determined, what methods or countermeasures could best contain or control the spill, and what locations would be best suited for containment barrier construction. The Coordinator is responsible for:

- Knowing the drainage patterns of the property and conditions (such as flooding) to any waterways (e.g., streams, creeks, and ponds).
- Knowing nearby storm drains or streams, and locating points down gradient of the Facility where a spill could be contained, and deciding on the method of containment or other countermeasures and have the necessary material, equipment or local and contracted response entities readily available and on standby, if needed.
- Coordinating and assigning responsibility for reaction in the event of a spill. These assignments must specifically address this SPCC and all materials imported, stored, handled, used, and disposed.
- Making any necessary corporate and external regulatory notifications.

### **4.3 Spill Response / Countermeasures**

When a spill or release occurs, quick, responsible action is needed to minimize the spread and possible contamination by the released material. Predictions of spill quantities and flow direction can be seen on Table 3 and Figure 4, respectively. Depending upon the severity or type of spill, outside assistance may be needed. The Facility Response coordinator will be responsible for making any necessary corporate and external regulatory notification or calls for assistance. See Appendix A for a list of Notifications.

#### **4.3.1 Spill Response Procedures**

All trained personnel shall take all actions possible to stop a release without endangering themselves or the environment. If the individual identifying the release has been trained on the requirements of this Plan, has been trained on the use of the spill containment equipment, and the spill can be controlled at the time of the release by the individual without endangering themselves or any other person in any way, then the individual shall take action to mitigate the release as outlined in facility spill response procedures. It is the facility's intent to contract out for spill clean-up in the event of a major oil spill.

Upon discovery of a release the following general procedures should be implemented. A generic spill response procedure can be found in Worksheet 4.

- Extinguish any sources of ignition until the spilled material is identified as nonflammable and noncombustible. Vehicles should be turned off. Avoid sparks and movement creating static electricity.
- If an emergency response situation exists, personnel should not attempt countermeasure activities for which they are not trained. If an emergency exists, protect the safety of all personnel, evacuate personnel from the area, activate the alarm system and call the Facility Response Coordinator. The Facility Response Coordinator shall coordinate the spill response and call the appropriate agency listed in the Emergency Notification List in Appendix A, as necessary.
- Attempt to stop the leak or spill. Take action to stop the flow of liquid if this can be done safely. This may include simple procedures such as turning valves or shutting down equipment.
- Contact the Facility Response Coordinator for all spills regardless of size. The spill coordinator will assess the hazard potential by determining the amount and extent of the spill and by consulting the Material Safety Data Sheet. Based on the hazard analysis, the Facility Response Coordinator will determine Personal Protective Equipment (PPE) required for continuing with the spill response. Note that the Facility Response Coordinator will also be responsible for additional

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notification(s) to internal management and reporting requirements to outside regulatory agencies.

- Contain the spill to prevent it from flowing into any water receptacle, ditch, storm sewer or onto unpaved ground surface. This may be performed using dikes, absorbent materials, booms, and other available materials provided in nearby spill kits or other equipment on site.
- Small spills (particularly those on paved surfaces) may be picked up with absorbent material (e.g., commercial absorbent clay, absorbent pads, absorbent booms, etc.). The absorbent material should be spread over the substance and left for sufficient time to allow it to absorb as much as possible. The oil soaked absorbent material should then be swept up and containerized.
- Recover the spilled material as much as possible for reuse. Material that cannot be reused should be containerized. The Facility Response Coordinator will be responsible for characterizing the waste material for ultimate disposal. The characterization can be made based on knowledge or laboratory analysis.
- Spills onto soils will require cleanup of impacted soils. The Facility Response Coordinator will be responsible for coordination and cleaning up impacted soil. Soil cleanup should be verified with confirmation soil samples collected from the excavation sidewalls and bottom.

#### **4.4 Notification Requirements**

When in doubt, report immediately. In the State of Georgia, emergency notification is required as soon as possible after the release. When making emergency telephone notifications, start with the National Response Center (NRC) first, and then proceed to State agencies, and lastly local agencies. As these notifications are made, let the next agency contacted know who has been previously contacted. This will help streamline communications should the various agencies begin to contact each other.

##### **4.4.1 Internal Notification**

The Hartwell Energy Facility emergency phone line is the internal notification point for initial spill reporting. The personnel manning the line will immediately notify the Facility Response Coordinator or designee, the O&M Supervisor, the CT Fleet Manager and the Oglethorpe Power Vice President of Environmental Affairs, in that order. All notification telephone numbers are located on the Emergency Notification List located in Appendix A. The Environmental Incident Report Form in InfoPath (Worksheet 3 in Appendix D) will be used to document the required information. This record will be maintained in the OPC Environmental Affairs SharePoint site and facility files.

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The following information regarding the release must be reported to the emergency phone line personnel at the earliest possible time following the release of any amount of oil into the environment (without leaving the site of the spill unguarded, if possible):

- Nature of the spill or leak;
- Location of the spill or leak, and is it contained within property boundaries;
- Size and extent of the spill or leak, the approximate amount of gallons spilled, and the direction the liquid is moving;
- Materials involved; and
- Injury to personnel.

The Facility Response Coordinator will have the primary responsibility of supervising and reporting any spill response activities. The Facility Response Coordinator, and CT Fleet Manager, along with the OPC Senior Vice President of Plant Operations, shall be authorized to commit the manpower and resources required to address any release. *All regulatory contacts will be made by the Facility Response Coordinator.*

All external requests for information must be referred to the Oglethorpe Power Public Relations Director. Casual statements made at the scene often appear in print as “according to a power company representative at the scene of the disaster...”. In order to prevent this from happening, a corporate statement will be developed by the Public Relations Director for release to the general public and media. Media inquiries should be documented using the Record of External Party Communication in Appendix A.

#### **4.4.2 External Notification**

Any spill of a “harmful quantity” of petroleum products must be reported if it reaches the “Waters of the United States”. Petroleum products mean any "oils", including lubricating oil, fuel oil, synthetic oil, hydraulic oil, or gasoline. Harmful quantities are those that result in violation of applicable water quality standards or that cause a film, sheen, or discoloration on surface water or adjoining shorelines. Evaluation of spill quantities and appropriate actions are presented below:

Hartwell Energy Facility

**Spill Classification and Required Actions**

Spill Classification	Perform the Following Activities
A spill of Petroleum/Oil that remains inside a building or on an exterior impervious surface that will not travel off site.	No outside notifications are required, however internal (OPC) notifications are required. Cleanup must begin immediately.
A spill resulting in a visible oil sheen, film or discoloration on waters of the United States.	Report the spill immediately to the <b>National Response Center at 800-424-8802.</b>
A spill of petroleum/oil (> 42 gallons but <1,000 gallons) that travels off site or on waters of the United States.	Report the spill <b>immediately</b> to National Response Center by telephone and by using the Environmental Incident Report Form in InfoPath (Worksheet 3). Contact the <b>National Response Center at 800-424-8802</b> and <b>EPD at 800-241-4113.</b>
A spill of petroleum/oil >1,000 gallons or two spills > 42 gallons within a 12 month period that travel off site or on waters of the United States	Report the spill <b>immediately</b> to National Response Center by telephone and by using the Environmental Incident Report Form in InfoPath (Worksheet 3). Contact the <b>National Response Center at 800-424-8802</b> and <b>EPD at 800-241-4113.</b> Submit Report to EPA within 60 days in accordance with 40 CFR 112.4(a), and amend the SPCC Plan as needed.
<p>A release of No. 2 fuel oil by the 12-inch steel supply pipeline that:</p> <p>(1) Caused a death or a personal injury requiring hospitalization;</p> <p>(2) Resulted in either a fire or explosion not intentionally set by the operator;</p> <p>(3) Caused estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding \$50,000;</p>	<p>Report the spill immediately to the National Response Center at 1-800-424-8802.</p> <p>As soon as practicable, but not later than 30 days after discovery of the accident, file an accident report on DOT Form 7000-1.</p>

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<p>(4) Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or</p> <p>(5) In the judgment of the operator (Hartwell Energy Facility) was significant even though it did not meet the criteria of any other paragraph of this section.</p>	
--	--

In addition to local notification requirements, federal requirements dictate that if a facility has had a single spill of more than 1,000 gallons of oil, or two spills of greater than 42 gallons within twelve months (to the environment), the facility must submit a copy of the SPCC Plan along with a written report to the EPA Regional Administrator within 60 days of triggering this reporting obligation. The report is an Amendment to the SPCC Plan that addresses the spill and defines corrective actions and preventive measures that have been implemented. The report of spill should be addressed to:

**Regional Administrator  
Attn: Response Prevention Bureau  
USEPA Region IV  
Atlanta Federal Center  
61 Forsyth Street, N.W.  
Atlanta, Georgia 30303-3104**

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#### 4.5 Waste Disposal

Waste materials that may be generated as the result of a spill or release will be managed based on their chemical and physical properties. Spill material and cleanup residues will be containerized and temporarily stored on site in a hazardous and/or non-hazardous waste storage area as appropriate. Recovered and re-usable spilled material will be returned to its appropriate material storage area. Unusable material, cleanup material/residues and wastes will be characterized by the Facility Response Coordinator to determine its final disposition. Resources specializing in containment, transport and disposal of both hazardous and non-hazardous wastes have been identified and designated. Contact information for emergency spill response and waste disposal companies are listed below and in the Emergency Notification List in Appendix A:

<b>Spill Response Contractors</b>	
Phillips Recoveries, Inc. (Primary Contractor) - Michael Phillips	508 Cherokee Pelzer, SC 29669 800-947-6805 864-934-2197 864-947-6861
Remtech Engineers (Alternate Contractor) - Mark Ryckman	200 North Cobb Parkway Marietta, GA 800-377-3648 24-hour 770-427-7766 x203 (b) (6) Cell
<b>Waste Disposal Contractor</b>	
Premier Industrial Services - Charlie Irwin	P. O. Box 1327 Duluth, GA 30096-1327 (b) (6) Cell (770) 736-0987 Office

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## **Appendix A – Notifications**

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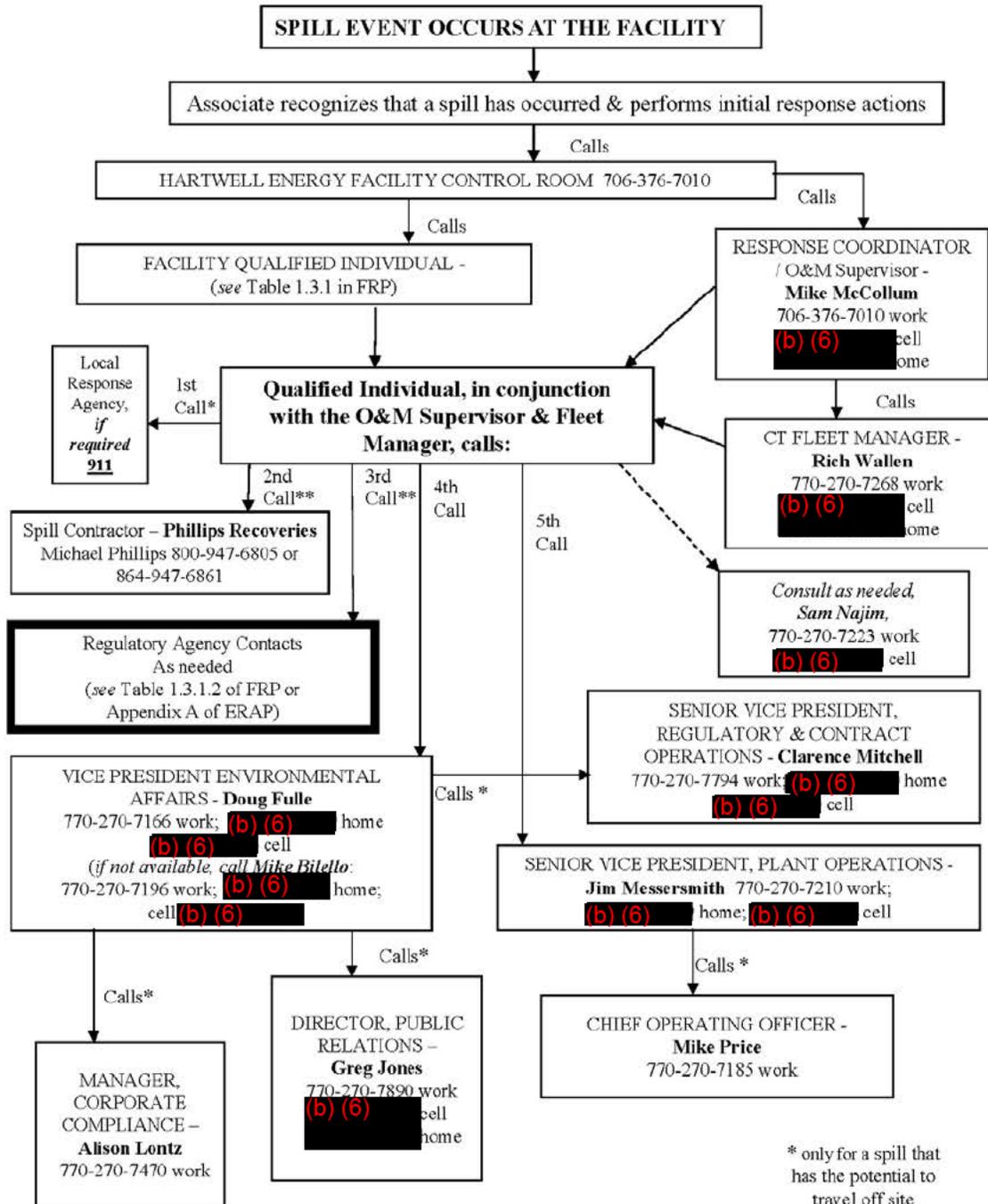
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FRP

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## HARTWELL ENERGY FACILITY SPILL REPORTING PROCEDURES



\* only for a spill that has the potential to travel off site

7/17/14

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<b>Emergency Notification List</b>		
<b>CONTACT NAME</b>	<b>CONTACT</b>	<b>PHONE NUMBER</b>
<b>Internal Emergency Response:</b>		
Hartwell Energy Facility Control Room		(706) 376-7010
Hartwell Energy Qualified Individual or Response Coordinator (Primary)	Mike McCollum	(O) (706) 376-7010 (H) (b) (6) (C) (b) (6)
Hartwell Energy Qualified Individual or Response Coordinator (Alternate)	Kenn Pittman	(O) (706) 376-7010 (H) (b) (6) (C) (b) (6)
GSOC System Control Center		(800) 241-5375 (256) 484-2949
<b>Corporate Reporting:</b>		
CT Fleet Manager	Rich Wallen	(W) (770) 270-7268 (C) (b) (6) (H) (b) (6)
Senior Vice President, Plant Operations	Jim Messersmith	(W) (770) 270-7210 (H) (b) (6) (C) (b) (6)
Vice President, Environmental Affairs	Douglas Fulle	(W) (770) 270-7166 (H) (b) (6) (C) (b) (6)
Principal Environmental Specialist	Mike Bilello	(W) (770) 270-7196 (H) (b) (6) (C) (b) (6)
Senior Environmental Specialist	Sam Najim	(W) (770) 270-7223 (C) (b) (6) (H) (b) (6)
Environmental Specialist	Lindsay Averett	(W) (770) 270-7298
Director, Public Relations	Greg Jones	(W) (770) 270-7890 (H) (b) (6) (C) (b) (6)
<b>Spill Response Contractor:</b>		
Phillips Recoveries, Inc. (Primary Contractor)	Michael Phillips	(800) 947-6805 (W) (864) 947-6861 (C) (b) (6) (H) (b) (6)
Remtech Engineers (Alternate Contractor)	Mark Ryckman	(800) 377-3648 x 203 or (770) 427-7766 x 203
<b>Waste Disposal Contractor:</b>		
Premier Industrial Services	Charlie Irwin	(C) 770-778-0946 (W) (b) (6) (H) (b) (6)
<b>Outside Support:</b>		
<b>National Response Center</b>		<b>(800) 424-8802</b> <b>(202) 267-2675</b>
<b>Georgia Emergency Response Commission</b> (any hazardous material spill)		(800) 241-4113 (404) 656-4863
Weather Report - National Weather Service	NOAA	(770) 632-1837

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<b>Emergency Notification List</b>		
<b>CONTACT NAME</b>	<b>CONTACT</b>	<b>PHONE NUMBER</b>
		(770) 486-1133
Hart County Fire Department		(706) 376-8515 or 911
Hart County Hospital		(706) 376-3921 or 911
Ambulance Service:		(706) 365-3421 or 911
U.S. EPA Region IV		(404) 562-8700
Federal Emergency Management Agency (FEMA) -Region 4		(404) 853-4200 (770) 220-5200
Georgia Emergency Management Agency (GEMA)		(404) 624-7205 (404) 635-7000
U.S. Coast Guard – Savannah		(912) 652-4181
U.S. DOT PHMSA OPS		(202) 366-4433
Plantation Pipe Line Company		(800) 510-5678
Colonial Pipeline Company		(800) 926-2728
Williams Gas Pipeline - Transco		(800) 440-8475

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**RECORD OF EXTERNAL PARTY COMMUNICATION**

OPC Associate Involved in Communication \_\_\_\_\_  
Facility \_\_\_\_\_

Person communicated with: \_\_\_\_\_ Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Organization/Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone number: \_\_\_\_\_

Purpose of Communication: \_\_\_\_\_

Discussion and Response:

Discussion	Response

Response required by Other Department:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Transmitted to Department \_\_\_\_\_ Date: \_\_\_\_\_



**Appendix B – Tables**

- Table 1 Summary of Aboveground Storage Tanks**
- Table 2 Spills Within Past Year**
- Table 3 Spill Prediction**

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**Table 1 – Summary of Petroleum Aboveground Storage Tanks**

NUMBERS ON FIG. 3 OR FIG. 5	SUBSTANCE STORED	LOCATION (FACILITY AND AREA)	MAXIMUM STORAGE CAPACITY (gallons)	SECONDARY CONTAINMENT (YES/NO)
A1	No. 2 Fuel Oil Tank # 1	East end of Facility	(b) (7)(F), (b) (3)	Yes
A2	No. 2 Fuel Oil Tank # 2	East end of Facility		Yes
A3	Fire Water Pump Diesel Fuel Storage	Southern Perimeter of Facility		Yes
A4*	Unit # 1 Recirculating Oil Reservoir	Center of Facility		Yes
A5*	Unit # 2 Recirculating Oil Reservoir	Center of Facility		Yes
A6*	Unit # 1 Main Transformer	Center of Facility		Yes
A7*	Unit # 2 Main Transformer	Center of Facility		Yes
A8*	Unit # 1 Auxiliary Transformer	Center of Facility		Yes
A9*	Unit # 2 Auxiliary Transformer	Center of Facility		Yes
A10*	Unit #1 Isolation Transformer	Center of Facility		Yes
A11*	Unit #2 Isolation Transformer	Center of Facility		Yes
A12*	Unit #1 Exciter Transformer	Center of Facility		Yes
A13*	Unit #2 Exciter Transformer	Center of Facility		Yes
	Empty Mobile Tank	Southwest corner behind the Storage Building		No
55-gallon Drums	Various new and used oils	Inside the Storage Building		Yes
12" Buried Supply Pipeline*	No. 2 Fuel Oil	West of Facility		No

Notes:

\* The transformers and the Recirculating Oil Reservoirs are considered Oil-Filled Operational Equipment (OFOE) per Section 112.2, and the bulk container requirements of Section 112.8, including integrity testing, do not apply to OFOE.



Hartwell Energy Facility

**Table 3 – Spill Prediction**

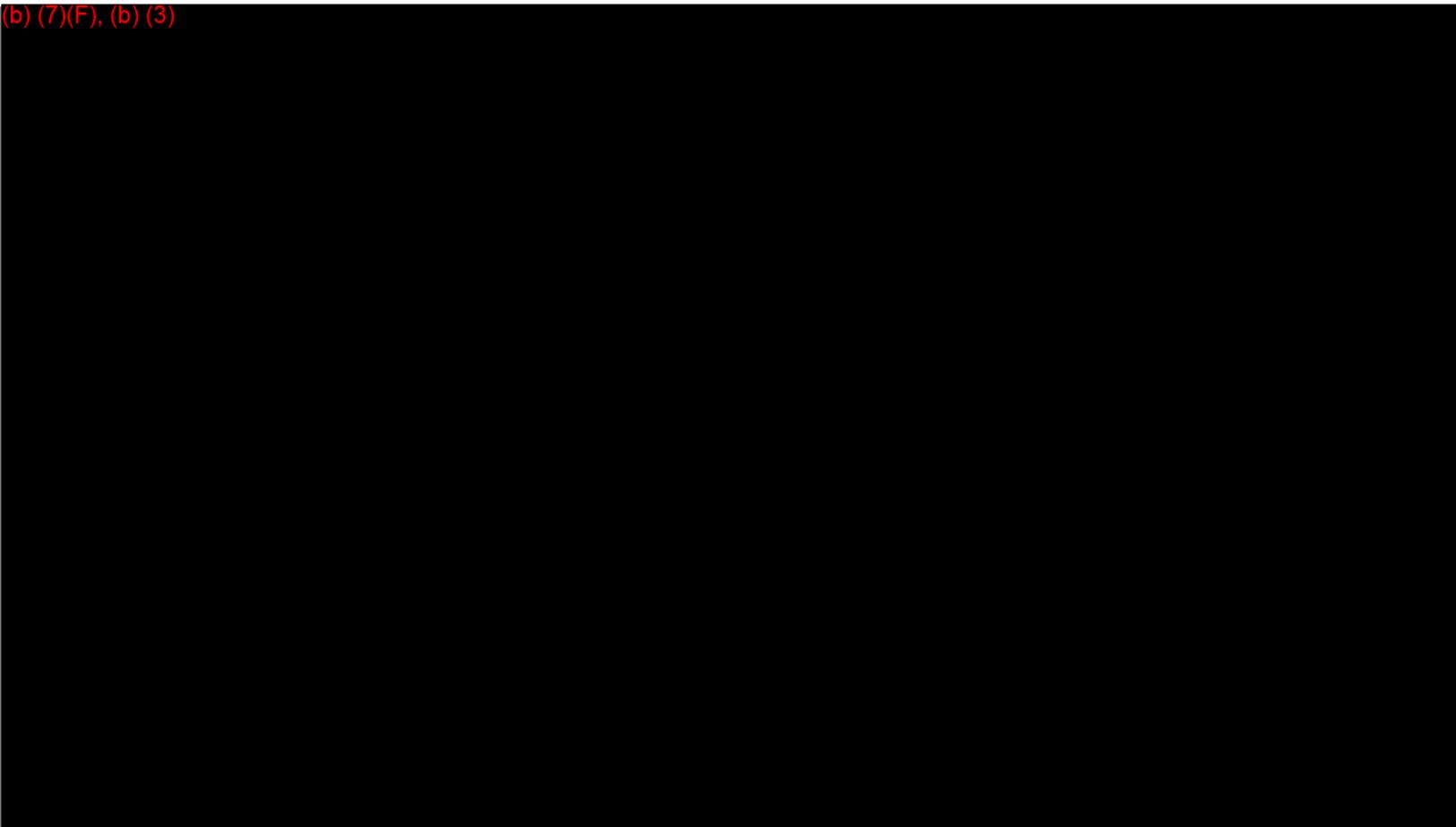
Source	Type of Failure	Volume	Rate (gallon/hr)	Direction of Flow	Containment
A1 – No. 2 Fuel Oil Tank # 1	Leak, Rupture or Overfill	(b) (7)(F), (b) (3)		South of Facility, then East	(b) (7)(F), (b) (3)
A2 – No. 2 Fuel Oil Tank # 2	Leak, Rupture or Overfill			South of Facility, then East	
A3 – Fire Pump Diesel Fuel Storage	Leak, Rupture or Overfill			South of Facility, then East	
A4 – Unit 1 Recirculating Oil Reservoir	Operational			South, then East	
A5 – Unit 2 Recirculating Oil Reservoir	Operational			South, then East	
A6 - Unit # 1 Main Transformer	Operational			South, then East	
A7 - Unit # 2 Main Transformer	Operational			South, then East	
A8 - Unit # 1 Auxiliary Transformer	Operational			South, then East	
A9 - Unit # 2 Auxiliary Transformer	Operational			South, then East	
A10 - Unit # 1 Isolation Transformer	Operational			South, then East	
A11 - Unit # 2 Isolation Transformer	Operational			South, then East	
A12 - Unit # 1 Exciter Transformer	Operational			South, then East	
A13 - Unit # 2 Exciter Transformer	Operational			South, then East	
55-gallon Drums	Leak, Rupture or Overfill			Immediate vicinity of drum	
12" No. 2 Fuel Oil Pipeline*	Leak or Rupture			South and West of Facility	

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### **Appendix C – Figures**

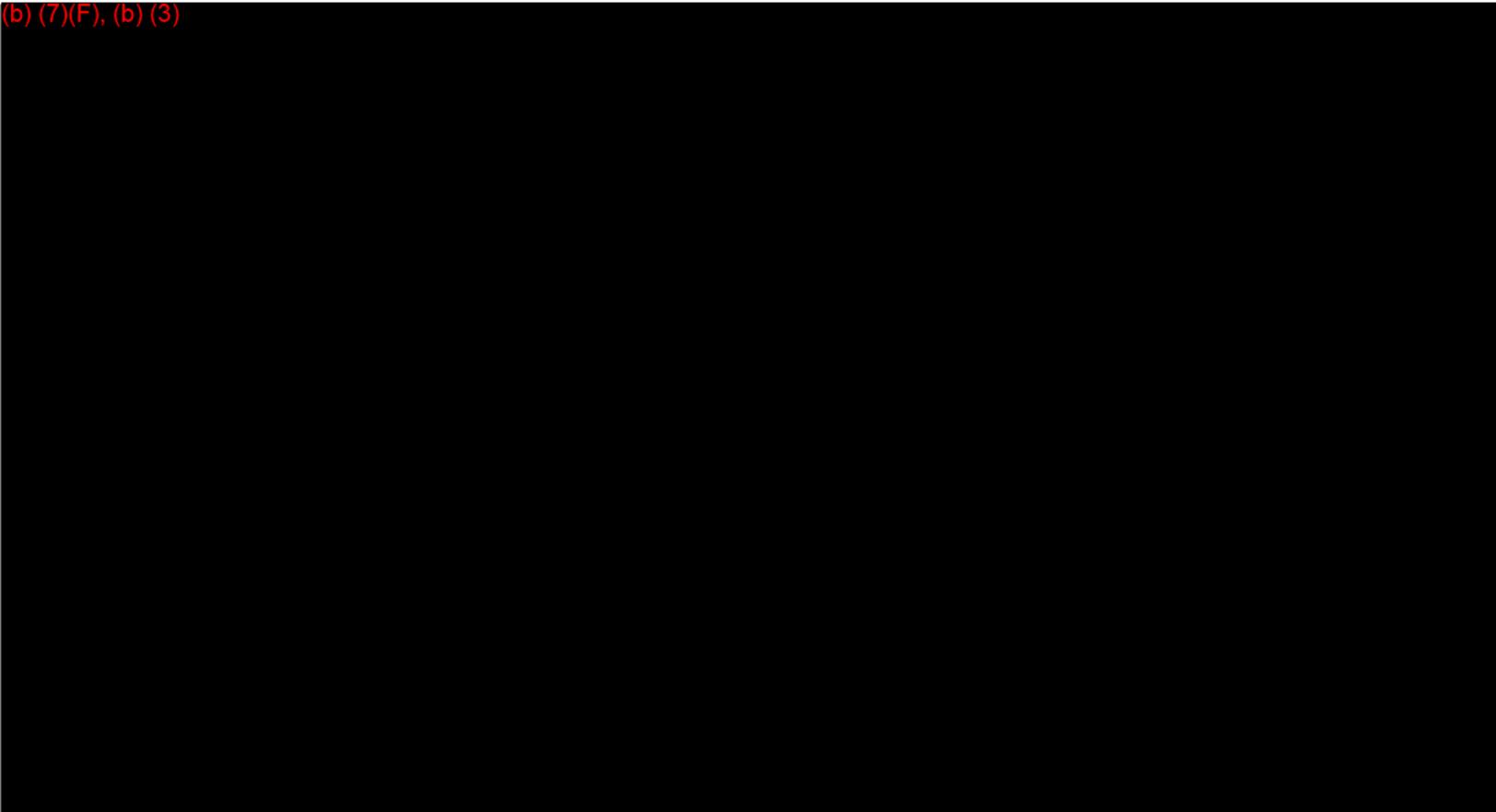
- Figure 1 Site Location Map**
- Figure 2 Site Topographic Map**
- Figure 3 Site Plan**
- Figure 4 Site Drainage Plan**
- Figure 5 Site Evacuation Plan**
- Figure 6 Receiving Pipeline Diagram**

(b) (7)(F), (b) (3)



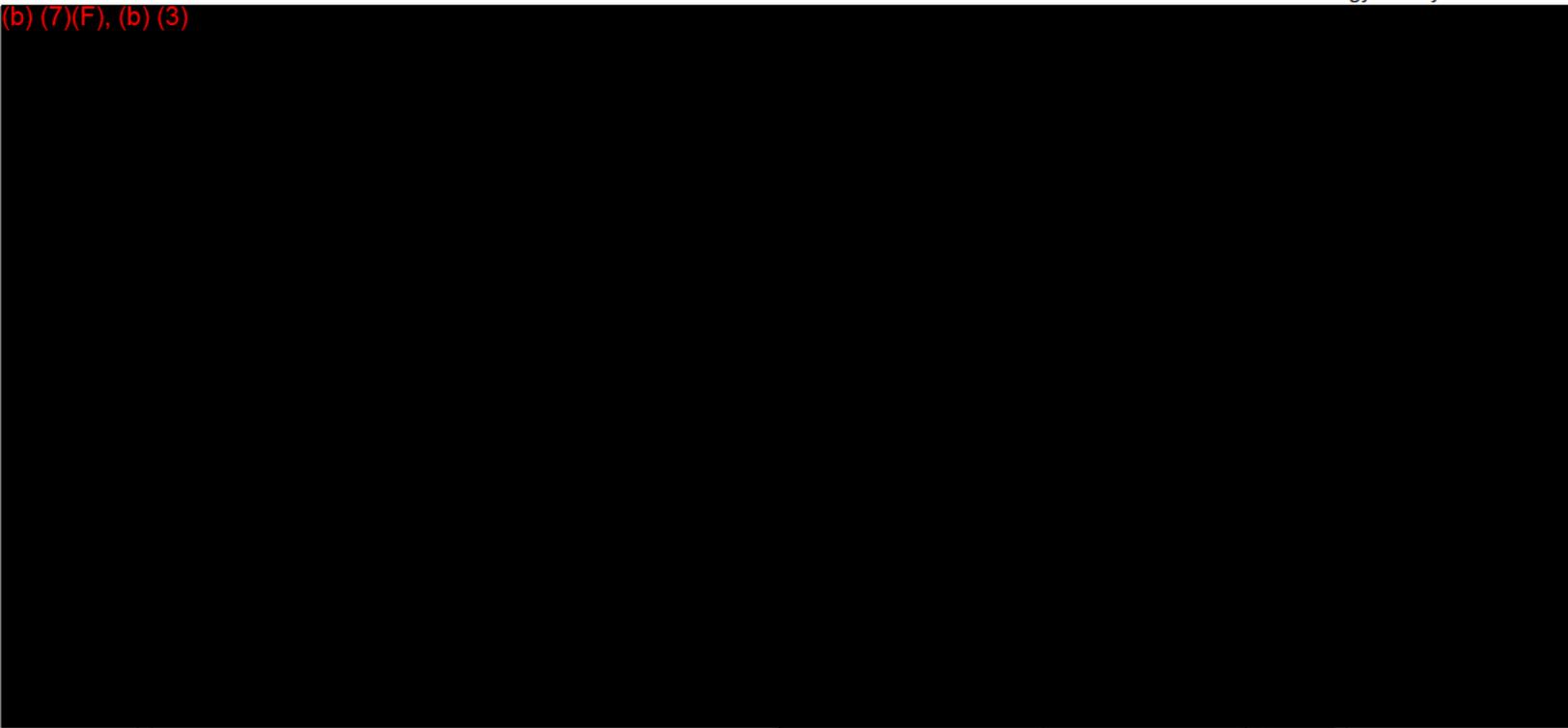
<p>HARTWELL ENERGY FACILITY 415 SMITH-McGEE HIGHWAY HARTWELL, GA PREPARED FOR OGLETHORPE POWER CORPORATION</p>	<p>SITE LOCATION MAP</p>	<p>SHEET: <b>FIG. 1</b></p>
	<p><b>URS</b> URS Corporation 400 Northpark Town Center 1000 Abernathy Road N.E., Suite 900 Atlanta, Georgia 30329 Tel: (878) 808-8800, Fax: (878) 808-8400</p>	<p>PROJECT NO.</p>
		<p>SCALE: 1" = 2000'</p>
		<p>DATE: 11-06-2009</p>

(b) (7)(F), (b) (3)

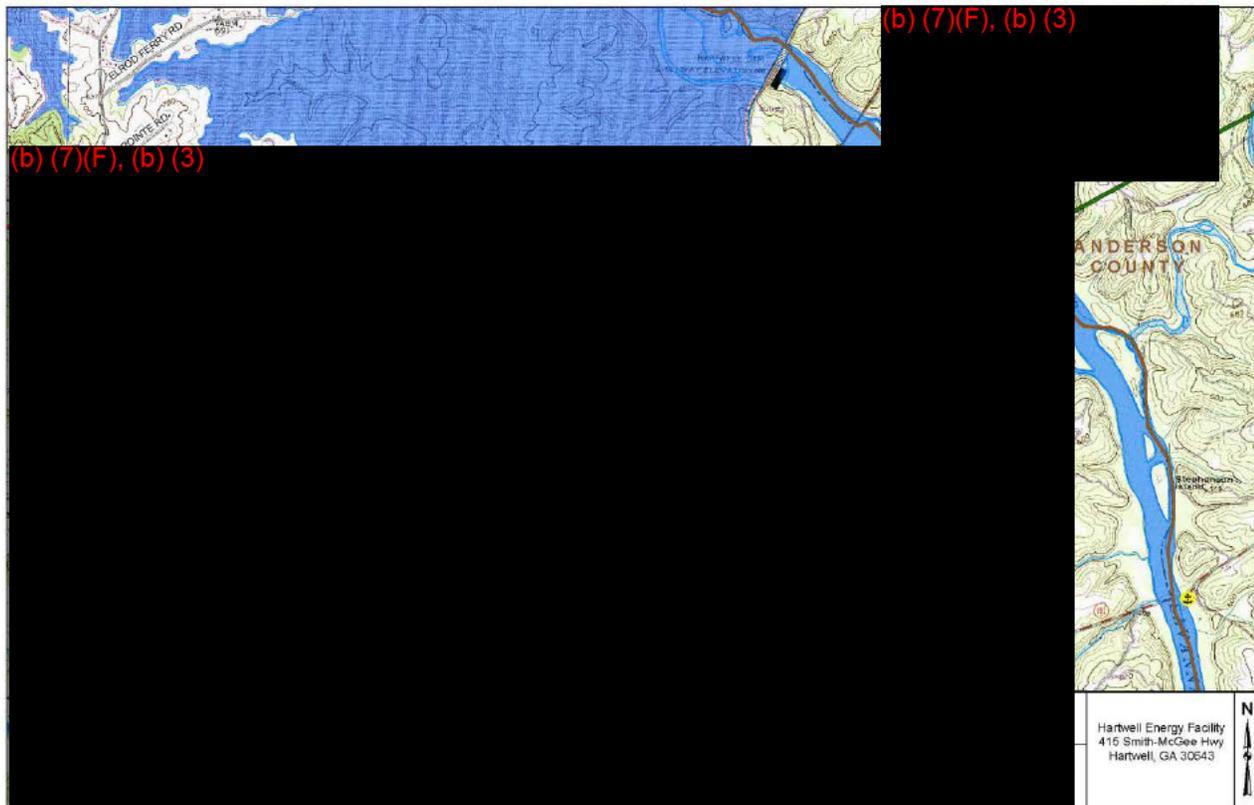


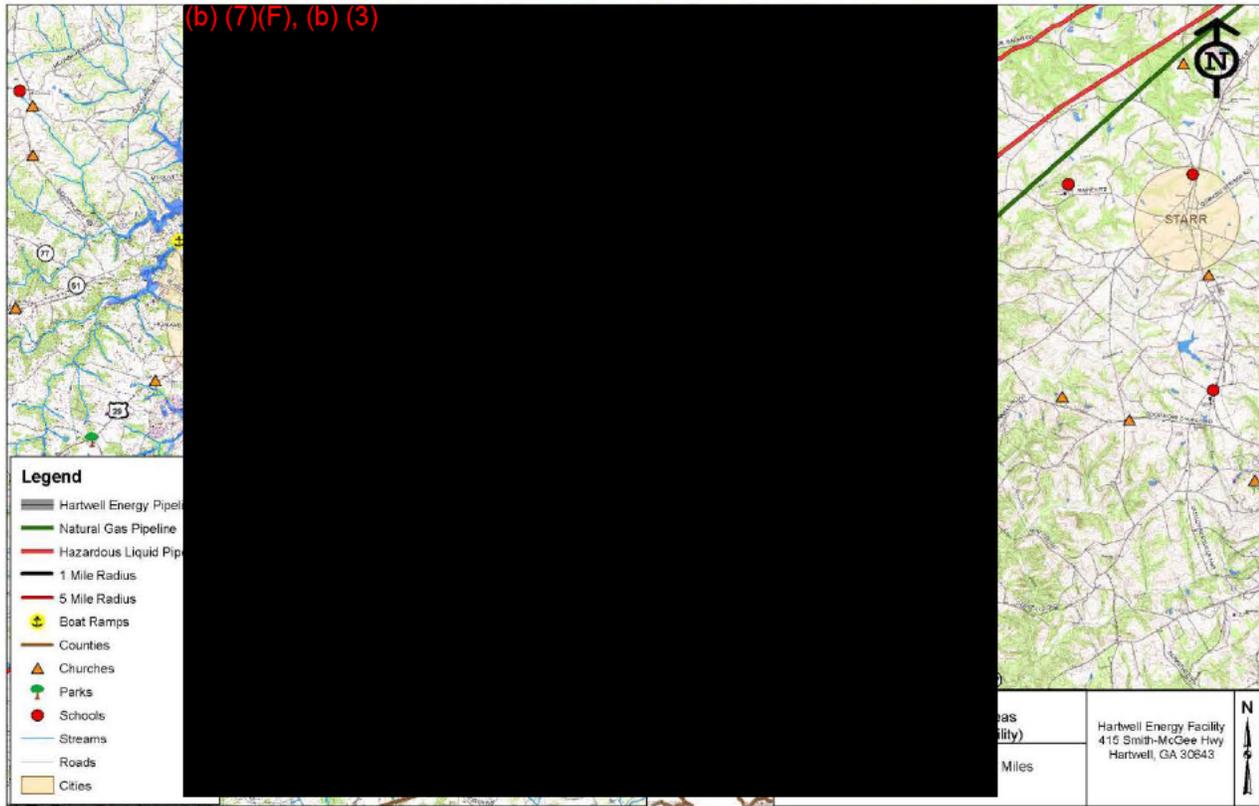
HARTWELL ENERGY FACILITY 415 SMITH-McGEE HIGHWAY HARTWELL, GA PREPARED FOR OGLETHORPE POWER	SITE TOPOGRAPHIC MAP	SHEET: FIG. 2
	 URS Corporation 400 Northpark Town Center 1000 Abernathy Road N.E., Suite 600 Atlanta, Georgia 30328 Tel: (878) 806-8800, Fax: (878) 806-8400	PROJECT NO.
		SCALE: 1" = 2000'
		DATE: 11-06-2009

(b) (7)(F), (b) (3)

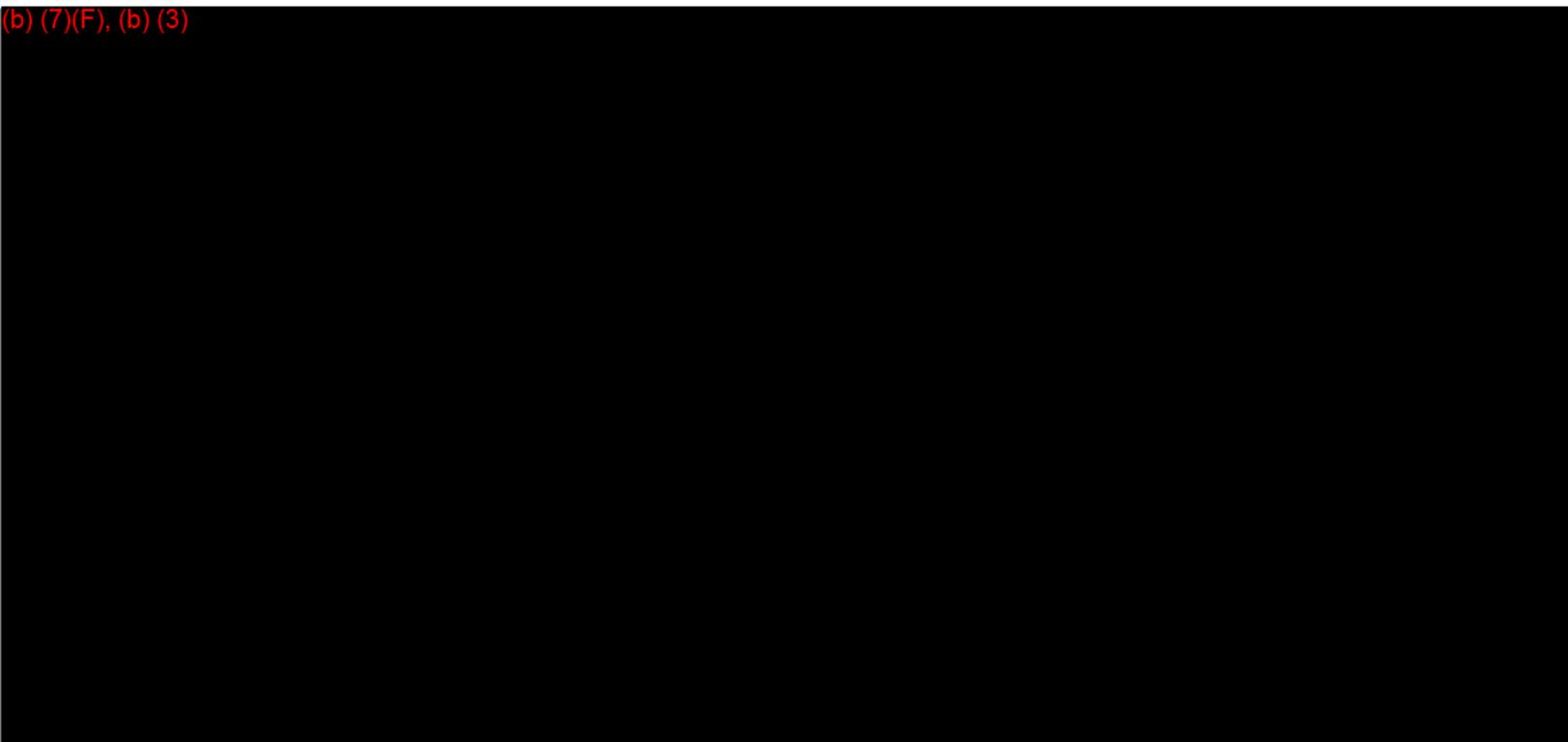


	HARTWELL ENERGY FACILITY 415 SMITH-McGEE HIGHWAY HARTWELL, GA	SITE PLAN DIAGRAM	FIG. 3
	OGLETHORPE POWER CORPORATION	<b>URS</b> 400 Northpark Town Center 1000 Abernathy Road, N.E., Suite 900 Atlanta, Georgia 30328 Tel: (878) 808-8800 Fax: (878) 808-8400	PROJECT NO. SCALE DATE 01/05/2011





(b) (7)(F), (b) (3)



 METERING STATION	 EXPOSED PIPE	 GROUNDWATER FLOW (GENERALIZED)	HARTWELL ENERGY FACILITY 415 SMITH-McGEE HIGHWAY HARTWELL, GA	RECEIVING PIPELINE DIAGRAM	FIG. 6
			OGLETHORPE POWER CORPORATION	 400 Northpark Tower Center 1000 Abernethy Road, N.E., Suite 900 Atlanta, Georgia 30329 Tel: (678) 909-8000 Fax: (678) 909-6400	SCALE: 1" = 700' DATE: T-06-2009

(b) (7)(F), (b) (3)

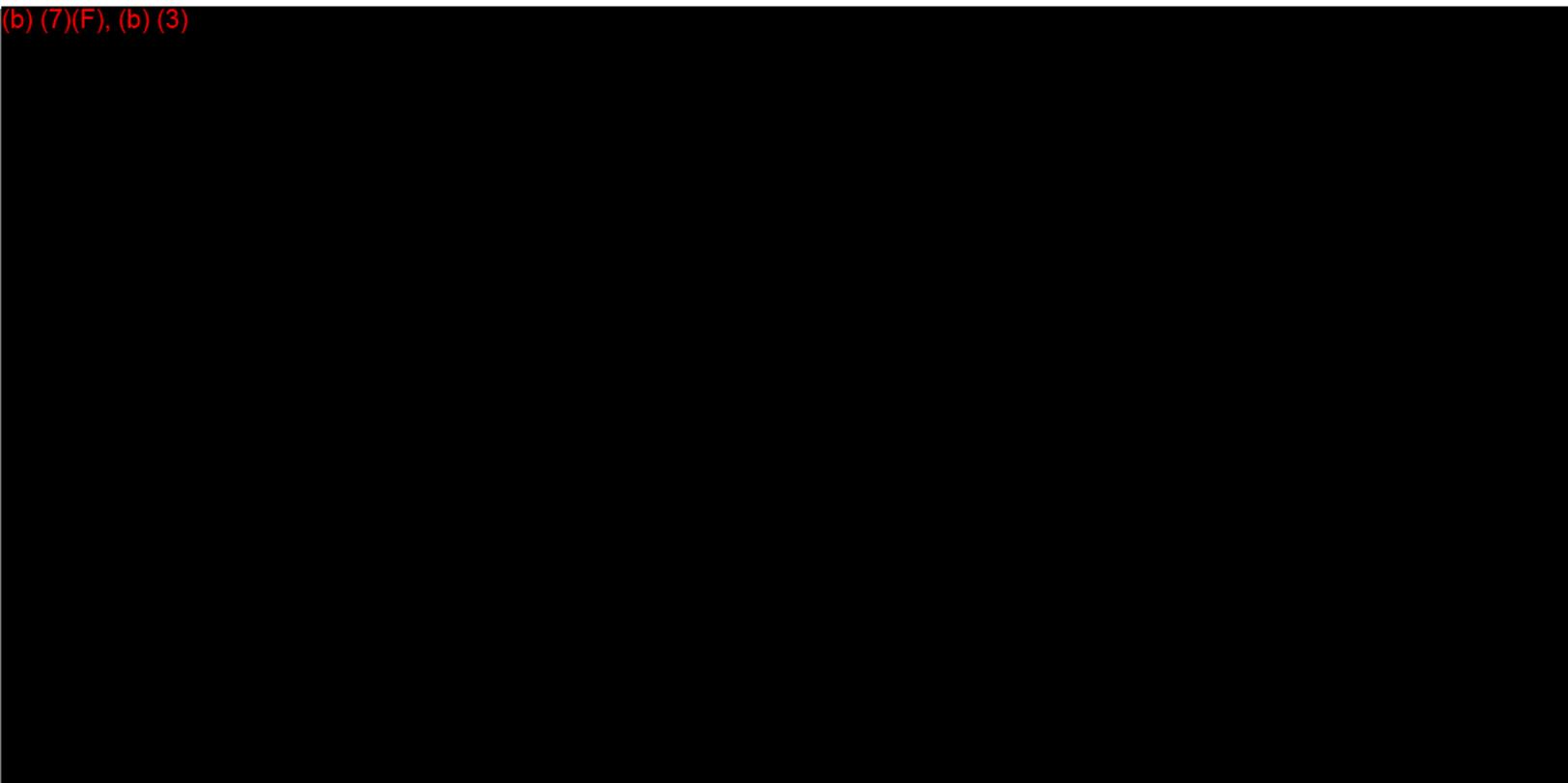
(b) (7)(F), (b) (3)

HARTWELL ENERGY FACILITY  
415 SMITH-McGEE HIGHWAY  
HARTWELL, GA  
30530-2011  
OGLETHORPE POWER CORPORATION

SITE EVACUATION PLAN  
**OPS**  
400 Northpark Tower Center  
1000 Abernathy Road, N.E., Suite 900  
Atlanta, Georgia 30328  
Tel: (678) 808-8800 Fax: (678) 808-8400

**FIG. 5**  
NO. OF SHEETS: 1  
SCALE: 1" = 175'  
DATE: 11-06-2009

(b) (7)(F), (b) (3)



 <p>ARROWS INDICATE SURFACE FLOW →</p>	<p>HARTWELL ENERGY FACILITY 415 SMITH-MCGEE HIGHWAY HARTWELL, GA DESIGNED FOR OGLETHORPE POWER CORPORATION</p>	<p>SITE DRAINAGE PLAN</p>	<p>FIG. 4</p>
		<p><b>URS</b> 400 Northpark Town Center 1000 Abernathy Road, N.E., Suite 900 Atlanta, Georgia 30328 Tel: (878) 809-8800 Fax: (878) 809-8400</p>	<p>SCALE: 1" = 175' DATE: 11-06-2009</p>

## **Appendix D – Worksheets**

**Worksheet 1 SPCC Inspection Checklist and Schedule**

**Worksheet 2 SPCC Training Log (sample)**

**Worksheet 3 Environmental Incident Report Form**

**Worksheet 4 Spill Response Procedure for Oil and Petroleum Products**

<b>Worksheet #1</b>			
<b>SPCC Inspection Checklist</b>			
<b>The Hartwell Energy facility O&amp;M Supervisor is responsible for making sub-facility specific check lists covering at least the items noted below</b>			
<b>Item for Inspection</b>	<b>OK? (✓)</b>	<b>Description of Unsatisfactory Item</b>	<b>Corrective Action and Date</b>
Secondary Containment (Structural integrity)			
Piping			
Valves (locked)			
Pumps			
Level Indicators			
Level Alarms			
Warning Signs, as needed			
Emergency Equipment			
Container Labeling, as needed			
Tanks, Supports			

Signature of Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Reviewing Manager: \_\_\_\_\_ Date: \_\_\_\_\_





Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
See link: <http://sp365/sites/OPCENV/ENVRE GADMIN/SitePages/Home.aspx>  
Click on Environmental Incident Report Template on the Left Column.



## OPC ENVIRONMENTAL INCIDENT REPORT FORM

### Requestor Information

Reporting Associate::  Date of Report:

Associate Number:  Extension:

Department:

### Incident Information

Facility:

Location:

Description of Event:

How identified: Select...

Date and Time of Incident:

Date and Time Incident identified:

Type of Incident:  Spill  
 Air Release  
 Other

Material Involved:  Oil Type:

Hazardous Material Type:

Hazardous Waste Type:

NOX Type:

Other

R1-1

**Incident Report**  
**Attorney – Client Privileged Communication**

Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
 See link: <http://sp365/sites/OPCENV/ENVREGADMIN/SitePages/Home.aspx>  
 Click on Environmental Incident Report Template on the Left Column.

How much was released:  Select... If other:

Immediate Actions Taken: (attach additional sheet and pictures if needed)

Follow-up actions to date: (attach additional sheet if needed)

Root Cause Analysis (to be submitted separately from Incident Report)

Root Cause Analysis Contact Associate:   
 Email (if not OPC):

Scheduled Completion Date:

---

**INTERNAL NOTIFICATIONS:**

<input type="radio"/> Yes <input type="radio"/> No	Spill Response Coordinator / Qualified Individual
	Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Facility – Plant Manager / O&M Supervisor
	Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Fleet Manager/ Manager Contract Assets
	Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Senior Vice President
	Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	OPC Public Relations
	Date/Time Notified: <input type="text"/> <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	OTHER (specify email address)
	<input type="text"/>
	Date/Time Notified: <input type="text"/> <input type="text"/>
	Legal Department: (Always Notified) Charles Whitney Annalisa Bloodworth
	Date/Time Notified: <input type="text"/> <input type="text"/>
	VP, Environmental Affairs: (Always Notified)

R1-2

**Incident Report**  
**Attorney – Client Privileged Communication**

Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
 See link: <http://sp365/sites/OPCENV/ENVREGADMIN/SitePages/Home.aspx>  
 Click on Environmental Incident Report Template on the Left Column.

Doug Fulle		
Date/Time Notified: <input type="text"/> <input type="text"/>		
Chief Operating Officer: (Always Notified)		
Mike Price		
Date/Time Notified: <input type="text"/> <input type="text"/>		
<b>AGENCY NOTIFICATIONS:</b>		
Agency:	Agency Contact:	Title:
<input type="text"/>	<input type="text"/>	<input type="text"/>
Date/Time:		OPC Associate:
<input type="text"/> <input type="text"/>		<input type="text"/>
Brief description of Notification and any Agency instructions.		
<input type="text"/>		
Additional Information:		
<input type="text"/>		
(Report must be submitted by end of business day of the incident - if additional information becomes available, an amended form should be submitted.)		
<b>Review &amp; Routing</b>		
Reviewer:		
Douglas Fulle VP, Environmental Affairs		
Comments:		
<input type="text"/>		
<u>Notifications to be sent:</u> chuck.whitney@opc.com annalisa.bloodworth@opc.com mike.price@opc.com		
Attorney – Client Privileged Communication		

R1-3

**Incident Report**  
**Attorney – Client Privileged Communication**

Hartwell Energy Facility

**Worksheet # 4 – Spill Response Procedure for Oil and Petroleum Products**

**Purpose:** This procedure provides general guidelines to be followed in the event of a spill or release of oil or other petroleum products.

**Scope:** The procedure applies to all spills of oil or petroleum regardless of the spill size. These procedures are general guidelines and should be followed. Spill response procedures for other hazardous or regulated chemicals may necessitate the use of additional or more stringent spill response procedures.

**Procedure:**

- 1) When any spill of oil or petroleum products is discovered, immediately extinguish all sources of ignition including vehicles and any other spark or flame generating operation.
- 2) Do not attempt any spill response activity for which you have not been trained. To do so may result in personal injury or increasing the environmental risks.
- 3) If an emergency situation exists, clear the area of personnel, activate any alarms that may be present, and contact the Facility Response Coordinator. See listing below:

Primary Home Phone: Mobile Number:	Mike McCollum	(b) (6)
Alternate Home Phone:	Kenn Pittman	

- 4) For all spill situations, contact the Facility Response Coordinator. If you have been properly trained, attempt to stop the spill or leak with whatever means are available. This may be as simple as turning off valves.
- 5) Contain the spill to minimize impacts to the environment. Try to prevent the spill from reaching ditches, sewers, storm drains or unpaved soils. This may be accomplished using materials in nearby spill kits, dikes, booms, or drain covers.
- 6) Capture small spills with absorbent material. After cleanup, containerize the absorbent material for disposal by the Facility Response Coordinator.
- 7) Reuse any spilled material, if possible.
- 8) Spills onto soils will require cleanup of impacted soils. The Facility Response Coordinator will be responsible for soil cleanup.
- 9) Complete the Spill Report Form and forward to the Facility Response Coordinator.

Hartwell Energy Facility

**Appendix E – Record of Review and Revisions**

SPCC Plan

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July 2014

FRP

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December 2014

Hartwell Energy Facility

**Record of Reviews**

<b>Date Reviewed</b>	<b>Reviewed By</b>	<b>Remarks</b>
May 1, 1999	Robert G. Kim	Facility management change
April 14, 2006	Robert Dawkins	Facility management change
October, 2007	Robert Dawkins/Mike McCollum/Daniel Moorhead/Eric Snider	Full review
November, 2009	Mike McCollum, OPC Management	Facility management change, personnel changes, addition of buried diesel supply line
February 2010	Mike McCollum, OPC Management	Update Facility management, personnel phone numbers, changes due to training and annual table top.
May 2010	Mike McCollum, OPC Management	Remove reference to Hartwell Energy Limited Partnership.
January 2011	Mike McCollum, OPC Management	Revised site plan to include underground pipe from storage tanks to units
February 2012	Mike McCollum, OPC Management	Added Specific work order numbers and inspections performed at the facility. Also updated names and phone numbers.
June 2012	Mike McCollum, OPC Management	Revised Section 3.1.1 and 3.3.1 to include more detail description of equipment and inspections per EPA Inspection on 3/1/12 recommendations. Also updated names and phone numbers.
April 2013	Mike McCollum, OPC Management	Updated names and phone numbers and included DOT PHMSA requirements.
July 2014	Mike McCollum, OPC Management	Updated names and phone numbers and added new environmental incident report form.

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Hartwell Energy Facility

**Record of Revisions**

<b>Date Amended</b>	<b>Section/Page of Amendment</b>	<b>Reason/Author/Approval</b>
May 1, 1999	Signature page	Changes in facility management
April 14, 2006	Signature page	Changes in facility management
October, 2007	Complete revision	Reflects regulatory Plan upgrade
November, 2009	As needed to reflect changes	Facility management, personnel, addition of buried diesel supply line
February 2010	As needed to reflect changes	Update Facility management, personnel phone numbers, changes due to training and annual table top.
May 2010	Section 1, page 1	Remove reference to Hartwell Energy Limited Partnership.
January 2011	Site Plan in Appendix C	Revised site plan to include underground pipe from storage tanks to units
February 2012	Worksheet #1, Emergency Notification List, and Spill Reporting Procedures.	Added Specific work order numbers and inspections performed at the facility. Also updated names and phone numbers.
June 2012	Section 3.1.1 and 3.3.1, and Emergency Notification List.	Revised Section 3.1.1 and 3.3.1 to include more detail description of equipment and inspections per EPA Inspection on 3/1/12 recommendations. Also updated names and phone numbers.
April 2013	Sections 1.1, 1.2, 1.5, 3.1.4, 4.4.2 and Emergency Notification List.	Updated names and phone numbers and included DOT PHMSA requirements.
July 2014	Sections 1.2, 4.2, 4.4, Emergency Notification List, and Appendix A and E.	Updated names and phone numbers and added new environmental incident report form.

SPCC Plan

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July 2014

# **HARTWELL ENERGY FACILITY RESPONSE PLAN**

## **APPENDIX D**

OPC Incident Response Organization Framework  
Spill Response Deployment Plan  
Hartwell Emergency Response Action Plan

Hartwell Energy Facility

Depending on the size and magnitude of the spill, the Facility OSC will activate the Business Continuity Program (BCP) and Disaster Recovery Program (DRP) Framework for Incidents at OPC-Managed Generation Plant. The BCP and DRP detail the incident command system (ICS) that will be used by OPC for spills and response of large magnitude that deem it necessary. The BCP and DRP will activate the Plant Crisis Management Team (CMT), which includes the President, CEO, CFO, Executive Vice President (EVP) of Member and External Relations, Senior VP of Plant Operations, Senior VP General Council, Senior VP Construction and Technical Services, VP Treasurer, VP Environmental Affairs and VP of Risk Management. The Senior VP of Plant Operations will be the Facilitator of the Plant CMT. The Plant CMT will be supported by the Plant Damage Evaluation Team (DET) and the Crisis Communications Team (CCT). See attached chart for more detail on the BCP and DRP.

Business Continuity Program (BCP) and Disaster Recovery Program (DRP) Framework for Incident at OPC-Managed Generation Plant

<p><b>Program Description (Governance)</b></p>	<ul style="list-style-type: none"> <li>Documents how the Family of Companies (FOC) will coordinate and communicate at time of disaster (ATOD)</li> <li>Defines roles and responsibilities ATOD</li> <li>Defines a consistent approach to maintaining the FOC BCP/DRP</li> </ul>		
<p><b>Plant Crisis Management Team (CMT)</b></p> <div style="border: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;">                 President and CEO                  EVP, COO                  EVP, CFO                  EVP, Member &amp; External Relations                  SVP, Plant Operations (Facilitator)             </td> <td style="width: 50%; vertical-align: top;">                 SVP, General Counsel                  SVP, Construction &amp; Technical Services                  VP, Treasurer                  VP, Environmental Affairs                  VP, Risk Management             </td> </tr> </table> </div>	President and CEO EVP, COO EVP, CFO EVP, Member & External Relations SVP, Plant Operations (Facilitator)	SVP, General Counsel SVP, Construction & Technical Services VP, Treasurer VP, Environmental Affairs VP, Risk Management	<p><b>Plant Crisis Management Team (CMT):</b></p> <ul style="list-style-type: none"> <li>Makes disaster declaration decision based on DET report</li> <li>Activates Crisis Communications Team</li> <li>Approves messages developed by Crisis Communication Team</li> <li>Develops recommendation to the Board on whether the plant should be restored or decommissioned</li> <li>Monitors progress of plant recovery efforts</li> <li>Ensures close coordination among the FOC</li> </ul>
President and CEO EVP, COO EVP, CFO EVP, Member & External Relations SVP, Plant Operations (Facilitator)	SVP, General Counsel SVP, Construction & Technical Services VP, Treasurer VP, Environmental Affairs VP, Risk Management		
<p><b>Plant Crisis Management Support Teams</b></p> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p><b>Plant Damage Evaluation Team (DET)</b></p> <p>Plant Manager                  Designated Plant Associates                  Designated Construction &amp; Technical Services Associates                  GSOC Energy Control Systems Manager                  GSOC Telecommunications Manager</p> </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p><b>Crisis Communications Team (CCT)</b></p> <p>EVP, Member &amp; External Relations                  EVP, COO                  Director of Corporate Communications                  Director, Community Relations                  OPC Director of Public Relations</p> </div> </div>	<p><b>Plant Damage Evaluation Team (DET):</b></p> <ul style="list-style-type: none"> <li>Performs initial damage assessment to determine the nature of the impact, the extent of the damage and the estimated time to restore operations at the existing facility</li> <li>Provides disaster declaration recommendation to CMT</li> <li>Performs detailed damage assessment</li> <li>Supports salvage operations</li> </ul> <p><b>Crisis Communications Team (CCT):</b></p> <ul style="list-style-type: none"> <li>Develops messages at time of disaster (ATOD) and submits such messages to the CMT for approval</li> <li>Directs media inquiries to appropriate team representative(s)</li> </ul>		
<p><b>Plant-Specific Recovery Teams</b></p> <div style="border: 1px solid black; padding: 10px;"> <p><b>Separate Plant Recovery Team for Each OPC-Managed Plant</b></p> <p><i>Plant Recovery Team Leader (Plant Manager), Other Designated Plant Managers, Supervisors and Designated Plant Associates</i></p> <div style="display: flex; justify-content: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">Rocky</div> <div style="border: 1px solid black; padding: 2px 5px;">Talbot</div> <div style="border: 1px solid black; padding: 2px 5px;">Smarr</div> <div style="border: 1px solid black; padding: 2px 5px;">Sewell</div> </div> <div style="display: flex; justify-content: center; gap: 10px; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px 5px;">Smith</div> <div style="border: 1px solid black; padding: 2px 5px;">Hartwell</div> <div style="border: 1px solid black; padding: 2px 5px;">Hawk</div> </div> </div>	<p><b>Plant Recovery Team Leader:</b></p> <ul style="list-style-type: none"> <li>Maintains and exercises plant recovery plan</li> <li>Sets up Command Center and leads plant recovery efforts ATOD</li> <li>Leads plant damage assessment efforts</li> <li>Reports progress and issues to designated CMT member(s)</li> <li>Ensures readiness of his/her plant recovery team</li> </ul> <p><b>Plant Recovery Team:</b></p> <ul style="list-style-type: none"> <li>Executes plant recovery plan ATOD with direction from Plant Recovery Team Leader</li> <li>Participates in exercises of plan recovery plan</li> </ul>		
<p><b>Plant Managers Support Team</b></p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>Any Plant Managers Unaffected by Disaster Event</p> </div>	<p><b>Plant Managers Support Team</b></p> <ul style="list-style-type: none"> <li>Comprised of Plant Managers of unaffected plants</li> <li>Serve as potential resources to support ATOD recovery efforts at any OPC-Managed Generation Plant</li> </ul>		



Hartwell Energy Facility  
Spill Response Deployment Plan

Prepared for



By

Remtech Engineers  
200 North Cobb Parkway  
Suite 208  
Marietta, Georgia 30062

May, 2010

**Site Remediation, Emergency Response & Remediation Equipment**

200 North Cobb Parkway, Suite 208, Marietta, Georgia 30062  
Phone: (800) 377-3648 or (770) 427-7766, Fax: (770) 427-7001  
website: <http://www.remtech-eng.com>

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# 1. DEPLOYMENT PLAN



# HARTWELL ENERGY FACILITY SPILL DEPLOYMENT PLAN DIRECTIONS & EQUIPMENT SPECIFICATIONS FOR CONTAINMENT, RECOVERY, & PROTECTION POINTS

## 1.0 Deployment Plan Purpose

Containment & recovery points have been visited and selected by a registered environmental engineer. Access points (including boat ramps) along with equipment specifications and directions are included in this plan to maximize the effectiveness of spill response operations. Sensitive receptors such as drinking water intakes have been located with protection measures.

## 1.1 Downstream Planning Distance Receptors & Response Criteria

(b) (7)(F), (b) (3)



The Richard B. Russell lake project covers 26,650 acres of water and 540 miles of shoreline. Watersheds on the Georgia side are located in Hart, Elbert, Lincoln, and Columbia Counties, and on the South Carolina side; in Anderson, Abbeville, and McCormick Counties.



### **1.3 Recovery Equipment**

Recovery equipment options include skimmer heads, sweep boom, air driven diaphragm pumps, tankers, and vacuum trucks.

### **1.4 Temporary Storage**

Temporary Storage options include: 20,000-gallon frac tanks, 3,000-gallon pillow tanks or pools, 1,600-gallon all-terrain tankers, and 3,000-gallon vacuum trucks or tankers.

### **1.5 Water Safety Considerations**

Response personnel should not enter dam tail waters within 1-mile of the Hartwell Dam unless discharge operations have been confirmed stopped with the COE. No boats with motors are allowed within this same distance. Exclusion buoys and signage are present downgradient from the Hartwell Dam and on the upgradient side of the Russell Dam. Obey all signage and markers.

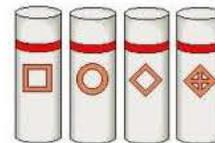
#### **1.5.1 Boating Safety Requirements**

The minimum size boat for response operations is 14 ft with a 15 Hp motor. Other boating/safety requirements include:

- Use a licensed craft with USGS approved lighting and safety equipment.
- Carry communications equipment at all times, including cell phones, marine radios, radio phones, and marine air horns.
- Do not tie up your boat to buoys or signs.
- Wear a USGS approved life jacket.
- Keep 50 feet from docks, structures, shoreline, swimmers or other persons in the water, and from other boats unless traveling at a "no wake" speed.
- Follow navigation rules of the road, buoys, and other aids to navigation.
- Watch your wake and keep a safe distance\* from docks and other structures, swimmers, and other boats.
- Check the weather forecast.
- Carry a navigation chart and know your waterway.
- Lake levels fluctuate daily. Check lake levels before each trip to the lake.
- Stay away from discharge side of dams (i.e., 1-mile, unless Dam notified and no discharge occurring)
- Underwater hazards include: shoals, stumps, rocks, tree tops, and snags within marked navigational channels. Outside of the channels, shoals, stumps, rocks, or other navigational hazards may be exposed or be lying just beneath the surface - creating potential hazards. This is especially true during periods of lower than normal lake levels. The immense number of potential hazards, along with constantly changing water conditions, prohibits the marking of hazards outside of navigational channels.

#### **1.5.2 COE Warning, Channel Markers & Buoys**

When dams discharge water, air horns are sounded to get people out of rapid flowing tailwaters.

**Buoys Definitions Left to Right:***Information* - directions, distances, supplies*Controlled Area* - no anchoring, wake or props*Exclusion Areas* - underwater hazards, dam tail waters*Danger Area* - underwater hazards

*Lateral buoys* define the borders of channels. Red buoys mark the right side of the channel while headed upstream and green buoys mark the left side of the channel when headed upstream. Red buoys have even numbers and red lights; green buoys have odd numbers and green lights.

**1.6 Sensitive Receptors****1.6.1 Water Intakes****(b) (7)(F), (b) (3)****1.6.2 Wildlife**

*Birds* - types of birds at Lake Russell include; blue heron, ducks, geese, pigeons, hawks, eagles, and other birds. Small impoundments have been provided for waterfowl bird nesting. Marine air horns should be used to keep fowl out of fuel spill areas.

*Fish* - types of fish in Lake Russell include; trout, bass, bream, catfish, and crappie. Fish tend to congregate around trees under water left in place during reservoir construction. Some of these areas are indicated by COE markers and on the cartographic maps depicted around containment points. Containment & recovery points have been located to keep fuel away from these areas where possible.

**1.6.3 Shoreline**

Lake Russell has over 540 miles of shoreline with limited access. Shoreline cleanup equipment includes: floating washdown pumps, rope mops, hand tools, bags, and supersacks.

**1.6.4. Boat Ramps**

Boat ramps for containment and shoreline cleanup access points are located with directions in this plan.

## 2. SPILL CONTAINMENT POINTS

Table 1: Containment/Recovery Points  
Location Containment Equipment

Point	Distance Downstream from Tank Farm	Latitude	Longitude	Access	Containment Equipment		
					Containment Boom, ft	Sweep Boom, ft	Special
Hartwell Dam		(b) (7)(F), (b) (3)		COE permission only			
Hartwell Energy Facility	0			Gravel Road			
C-1	680 ft			Grass/4-Wheel	NA		Inflatable Plug
C-1a	475			Grass/4-Wheel	Outfall Structure	200	
C-2	1,000 ft			Gravel Road	100	100	10 bales straw
C-3	2,600 ft			Grass/4-Wheel	100	100	10 bales straw
C-4	4,700 ft			Dirt Road, Foot	3-100 ft	100	
C-5	2.76 miles			Bridge/Water	750	300	
C-6	8.42 miles			Bridge/Water	950	300	
C-7	11.44 miles			Water	1,300	300	
C-8	24.01 miles			Bridge/Water	2,300	300	
C-9	28.11 miles			Water	2,200	300	
Russell Dam	28.2 miles			COE permission only			
J. S. Thurmond Dam	63.1			COE permission only			
Subtotals					8000	2000	

**HARTWELL ENERGY FACILITY**

Coordinates: (b) (7)(F), (b) (3) °

From Marietta to Facility (121 miles)

Take I-75 S to I-285 E. Turn onto I-85 N and proceed to exit 177. Turn right onto SR 77/366 (Providence Church Road) and proceed for 12.1 miles. Stay on SR 77/366 into Hartwell, GA. Turn left and then take an immediate R onto W Franklin St (SR 8/US 29) and continue for 6.75 miles. Turn right onto SR 181. Hartwell Energy's entrance road is located approximately 0.5 miles on the left. Proceed to entrance gate and request admittance via gate security intercom.



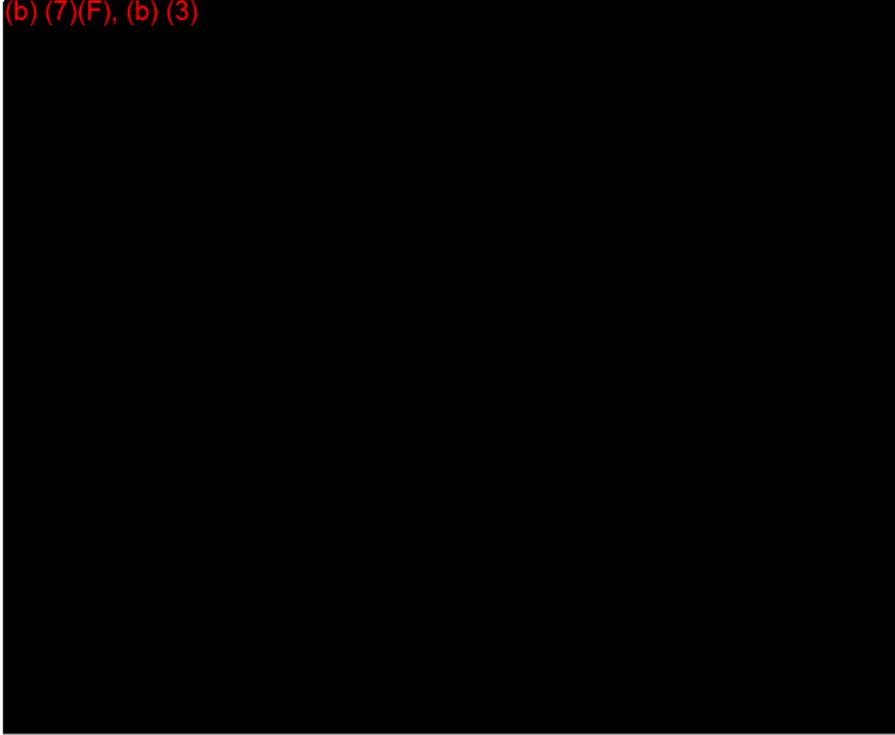


Looking North Towards Hartwell Dam from US 29, Anderson Highway Bridge

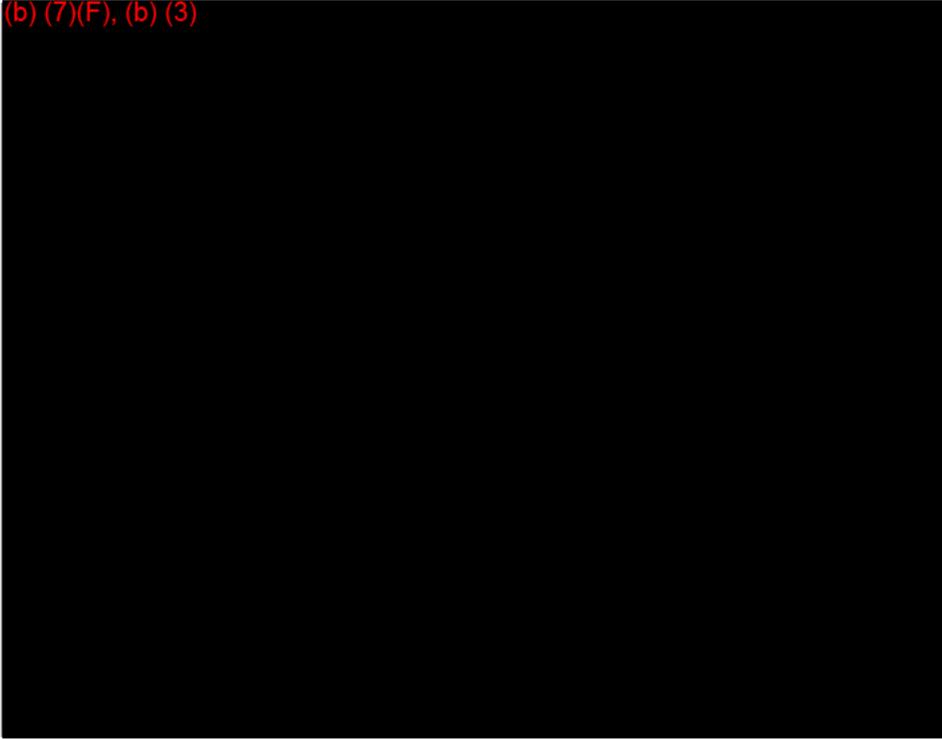


Looking South, Downstream from Anderson Highway Bridge

(b) (7)(F), (b) (3)



(b) (7)(F), (b) (3)





**CONTAINMENT POINT C-1, 680 FT DOWNSTREAM FROM TANK FARM, OUTFALL FROM DETENTION BASIN**

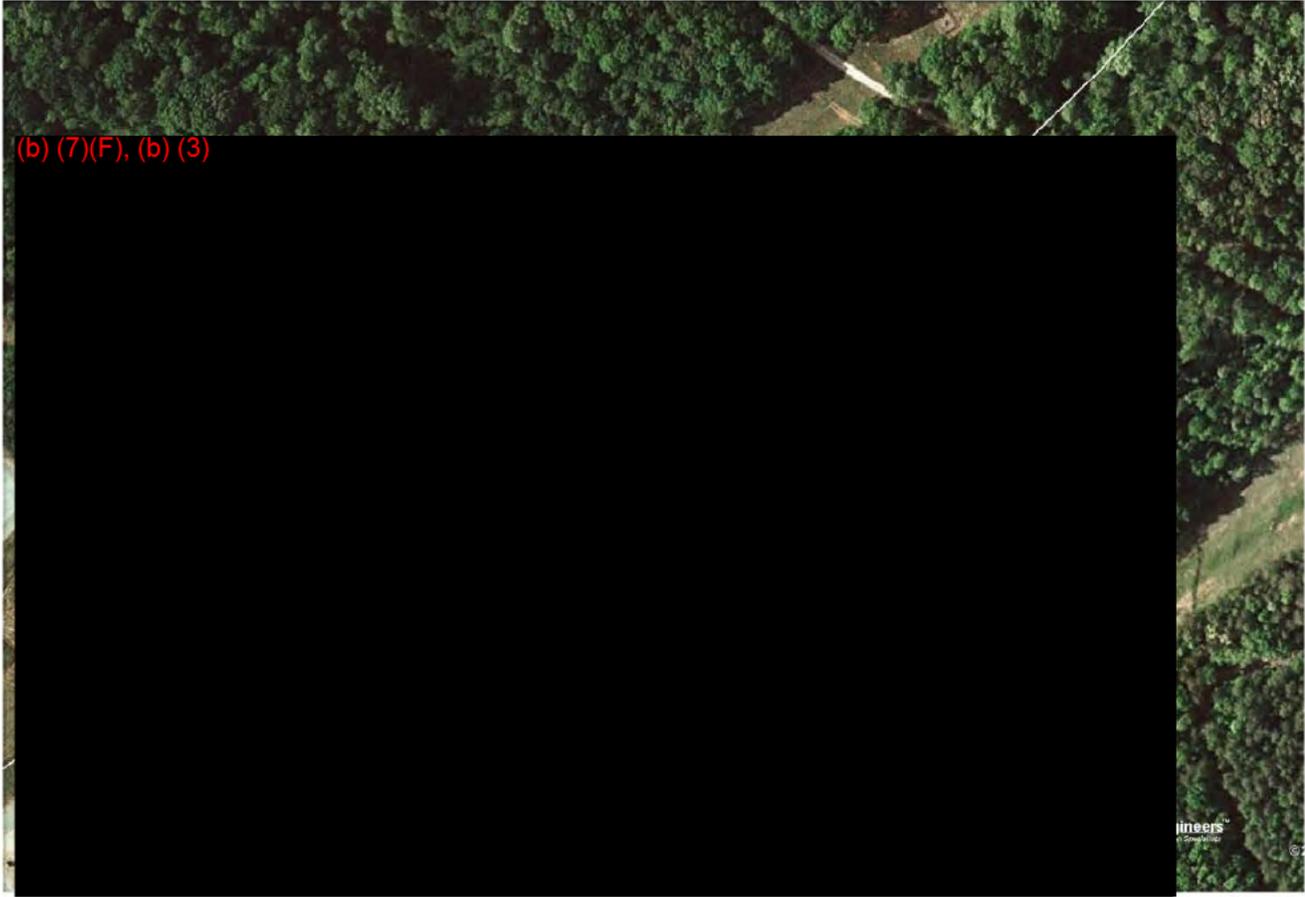
Coordinates: (b) (7)(F), (b) (3)

From Facility

Exit facility NE gate and proceed downhill to road on the N side of the 1.8 MG detention basin. RCP outfall (drain line from basin) is located on the N side of the road in the brush.

Containment - Deploy inflatable plug in discharge pipe from basin. Inflate with compressor.

Sweeping Boom, Staging, Recovery Equipment, and Storage - See Recovery Point C-1A.





Inflatable Plug for Detention basin RCP Pipe in storage area



Containment Point C-1: Discharge from Detention Basin, Containment - Inflatable plug, Recovery - see detention basin (1), Suction screen & hose inside out-fall structure (2) In basin - Skimmer & pump/tanker or vacuum truck, 200 ft skimmer sweep boom, Storage - tanker, bladder, or frac tank



## CONTAINMENT POINT C-1A, 470 FT DOWNSTREAM, OUTFALL FROM DETENTION BASIN

Coordinates: (b) (7)(F), (b) (3)

### From Facility

Exit facility NE gate and proceed downhill to road on the N side of the 1.8 MG detention basin.  
Outfall structure is located inside detention basin.

Containment - Use existing outfall structure

Sweeping Boom - 200 ft to sweep contained in the basin

Staging - Just inside gate, or if passable, proceed down dirt/grass towards basin.

Recovery Equipment - 2" diaphragm pump placed on road next to basin with suction  
hose & screen placed in outlet manhole in basin. May need to run discharge  
hose several hundred feet to stable ground for temporary storage.

Temporary Storage - 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum  
truck



Inlet Concrete Drainage Swale on SE Side of Detention Basin



Recovery Point C-1A: Detention Basin. Containment - Inflatable plug at outfall, Recovery (1), Suction screen & hose inside outfall structure (2) In basin - Skimmer & pump/tanker or vacuum truck, skimmer with sweep boom, Storage - Tanker, bladder, or frac tank



Recovery Point C-1A: Detention Basin Outfall Structure



Recovery Point C-1a: (1), Suction screen & hose inside outfall structure  
 (2) In basin - Skimmer & pump/tanker or vacuum truck, skimmer with sweep boom,  
 Storage - Tanker, bladder, or frac tank



**CONTAINMENT POINT C-2, 1,000 FT DOWNSTREAM, CULVERT  
IMMEDIATELY DOWNSTREAM FROM BEAVER DAM,**

Coordinates **(b) (7)(F), (b) (3)**

From Facility

Proceed out the front gate to SR 181. Turn R and continue to SR 8/US 29. Turn R onto SR 8/US 29 and proceed for 0.82 miles to entrance road on right to TSAY Ferguson Williams Facility. Turn right and continue for 0.46 miles on gravel road passing Colonial Pipeline ROW. Containment point is on right down embankment in front of culvert passing under gravel road.

Containment - Deploy 10 bales of straw against CMP outlet structure. Place two metal posts in each bale. Deploy 100 ft containment boom on upgradient side of straw filter dam.

Sweeping Boom - 100 ft

Staging - On gravel road next to culvert

Recovery Equipment - 2" diaphragm pump with skimmer placed on dirt road next to drain pipe inlet.

Temporary Storage - 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum truck





Beaver dam creates 900,000 gallons of storage for containment Point C-2



Containment Point C-2: Discharge from Beaver Dam, Containment - 10 bales of straw, fence post anchors to seal off culvert, 100 ft River Boom, Recovery - Skimmer with 100 ft of sweep boom & Pump/ Tanker or Vacuum Truck, Storage - 3,000 gal pillow tank, frac tank, or tanker

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## CONTAINMENT POINT C-3, 2,600 FT DOWNSTREAM, COLONIAL PIPELINE ROW & CREEK

Coordinates: (b) (7)(F), (b) (3)

### From Facility

*Need 4-Wheel Drive Vehicle for access to this point.* Proceed out the front gate to SR 181. Turn R and continue to SR 8/US 29. Turn R onto SR 8/US 29 and proceed for 0.82 miles to entrance road on right to TSAY Ferguson Williams Facility. Turn right and continue for 0.43 miles on gravel road. At Colonial Pipeline ROW, turn left onto grass and proceed 800 ft. Stop prior to bottom of hill. Containment point is an additional 670 ft on left in front of culvert at bottom of hill.

Containment - Deploy 10 bales of straw (each anchored with 2 metal stakes) over culvert inlet. Place 100 ft river boom on upgradient side of straw filtration dam.

Sweeping Boom - 100 ft

Staging - Use all terrain 1,600-gallon tanker pulled with ASV with rubber tracks to shuttle spill residues to staging area on gravel road at top of hill.

Recovery Equipment - 2" diaphragm pump with skimmer head

Temporary Storage - 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum truck



Containment Point C-3:

Access - Colonial Pipeline ROW grass/road  
4-wheel drive to gravel road. Containment  
- 10 bales of straw staked in place to block  
culvert, 100 ft river boom, Recovery -  
Skimmer with 100 ft sweep boom, pump/  
tanker or vacuum truck, shuttle waste to  
gravel road with all-terrain tanker to Storage -  
Frac tank, tanker, or pillow tank.



Looking upgradient from contain-  
ment Point C-3





### **CONTAINMENT POINT C-4, 4,700 FEET DOWNSTREAM**

Coordinates: (b) (7)(F), (b) (3)

Water Depth: Generally less than < 8 ft

#### From Facility

Proceed out the front gate to SR 181. Turn R and continue to SR 8/US 29. Turn right onto SR 8/29 and continue for 0.82 miles. Turn L into the entrance road to the Lake Hartwell Dam and travel for 0.32 miles. Turn R onto the River Front Road, pass under SR 8/US 29 bridge and proceed for a total distance of 0.8 miles. At end of parking lot follow dirt trail parallel to river for 760 ft to confluence of creek with Savannah River. This is containment point C-4. Should be able to set boom with waders and safety lines. A small boat (10 ft) may be launched near the parking lot for access to C-4.

Boat - Small 10 ft boat with paddles, no motor allowed - too shallow

Containment - Deploy 3 - 100 ft river boom spaced 20 to 50 ft apart

Sweeping Boom - Two - 50 ft sections

Staging - In parking lot next to dirt trail.

Recovery Equipment - Skimmer and 2" diaphragm pump placed on dirt road near confluence of creek & Savannah River.

Temporary Storage - 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum truck



Containment Point C-4:  
Access from asphalt parking lot to dirt path leading to river.



Containment Point C-4:  
Containment - Set 3 - 100 ft River Booms, 20 ft apart on drainage ditch leading to river. Secure boom ends to trees. Recovery - Skimmer with Pump/Tanker or Vacuum Truck and 100 ft sweep boom. Storage - Frac tank or tanker in parking lot.



**CONTAINMENT POINT C-5, 2.76 MILES DOWNSTREAM**

Coordinates: (b) (7)(F), (b) (3)

Water Depth: 5 - 19 ft.

**From Facility**

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles to Smith McGee Bridge.

Deployment Point is between old and new bridges on right.

Boat - 14 ft Jon Boat with 15 Hp motor

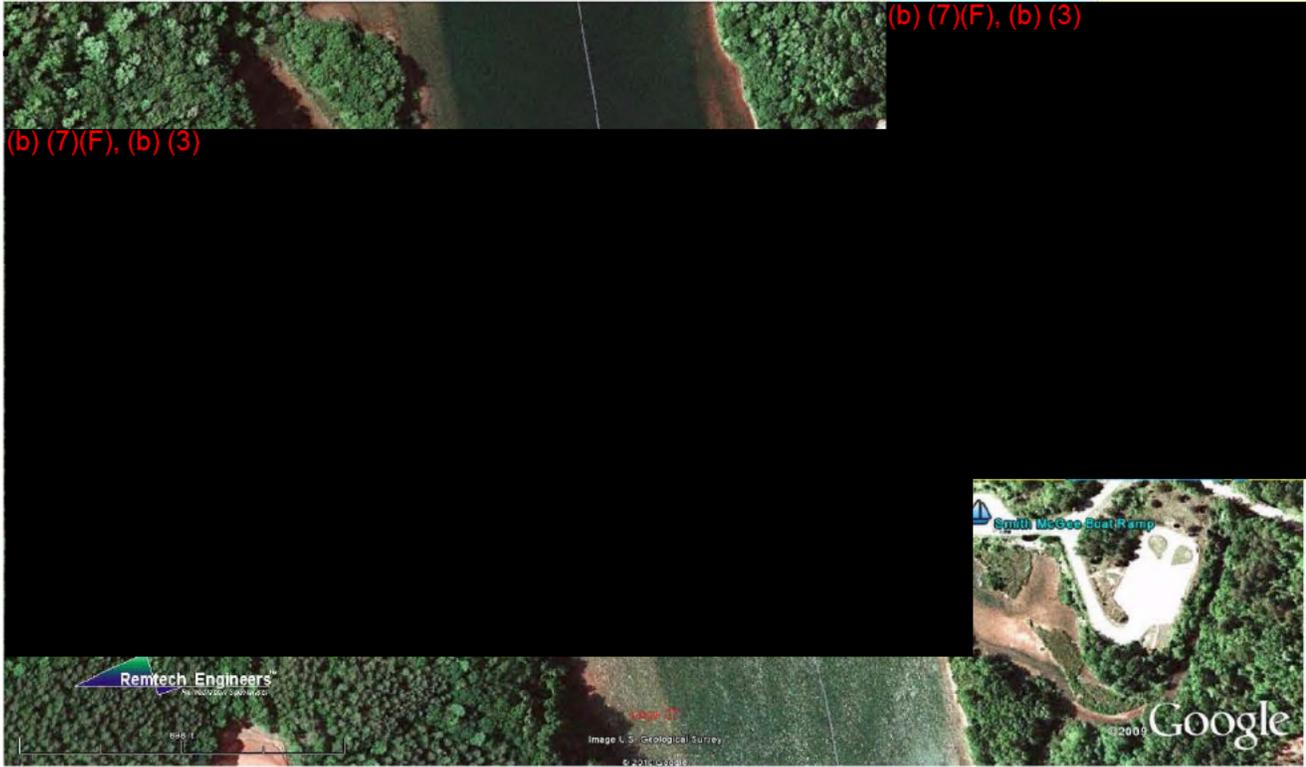
Containment - Deploy 750 ft of river boom from the new bridge. Secure boom ends to NE corner of new bridge and NW corner of old bridge.

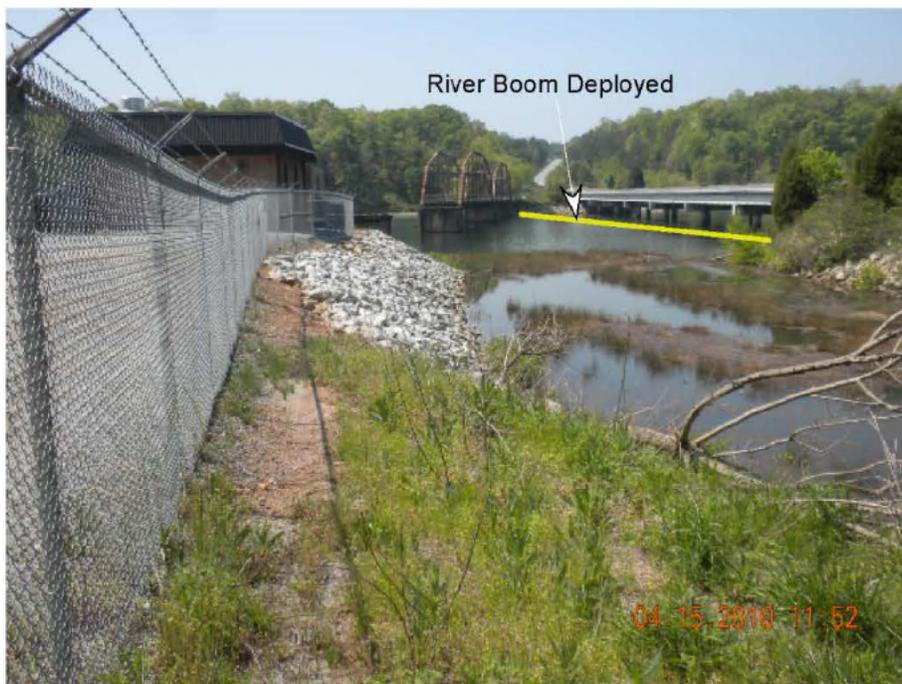
Sweeping Boom - 300 ft

Staging - Old Bridge Access Ramp

Recovery Equipment - Skimmer with 300 ft of sweep boom, 2" diaphragm pump or Vacuum truck

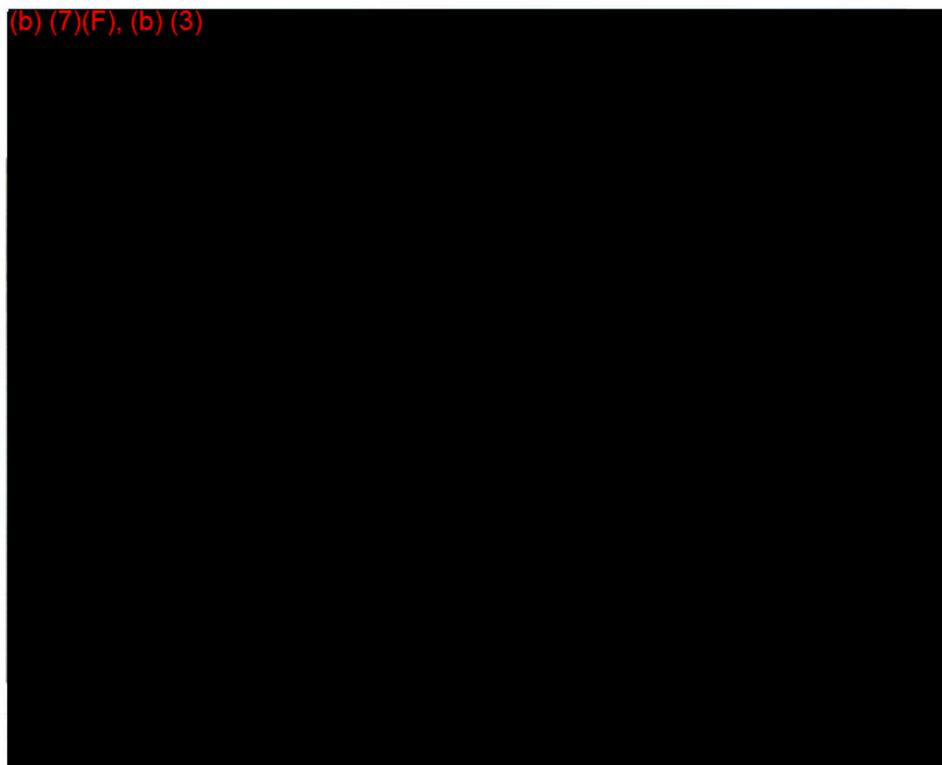
Temporary Storage - 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum truck





Containment Point C-5 from SC side: Deploy boom between new and old bridges

(b) (7)(F), (b) (3)





Looking downstream from C-5 towards Smith-McGee Boat Ramp on SC side



Smith-McGee Boat Ramp on SC side. Containment point C-5 is 0.14 miles upstream from Boat Ramp)



### **CONTAINMENT POINT C-6, 8.42 MILES DOWNSTREAM**

Coordinates: (b) (7)(F), (b) (3)

Water Depth: 4 to 54 ft

#### From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles to Smith McGee Bridge. Continue on SR 181 past bridge for approximately 2 miles. Turn right onto SR 187 and travel for 6.63 miles. **Sanders Ferry Boat ramp (coordinates: (b) (7)(F), (b) (3))** for C-6 is on right just before bridge. Bridge is immediately past the boat ramp.

Boat - 14 ft Jon Boat with 15 Hp motor

Containment - Deploy 950 ft of river boom from bridge on N side. Secure boom ends to NE and SW corners of bridge

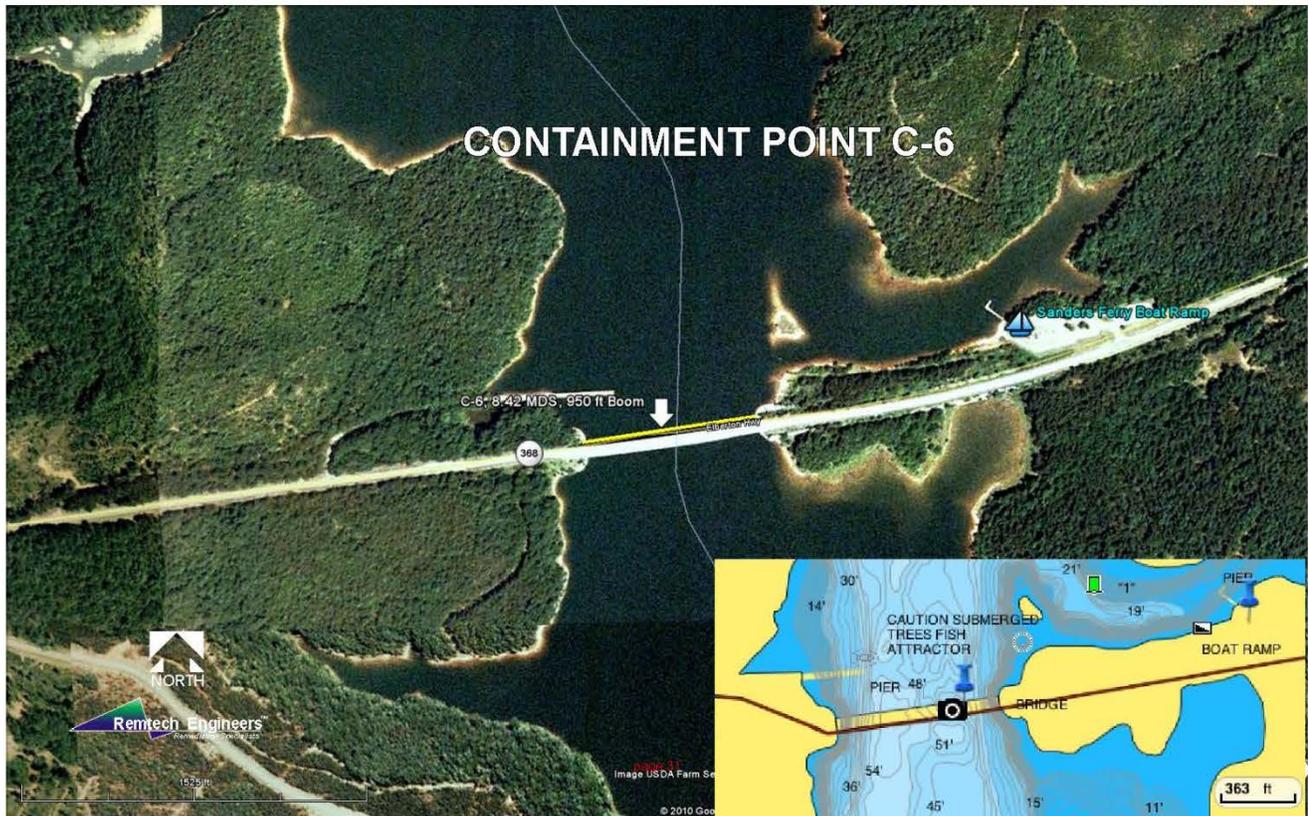
Sweeping Boom - 300 ft

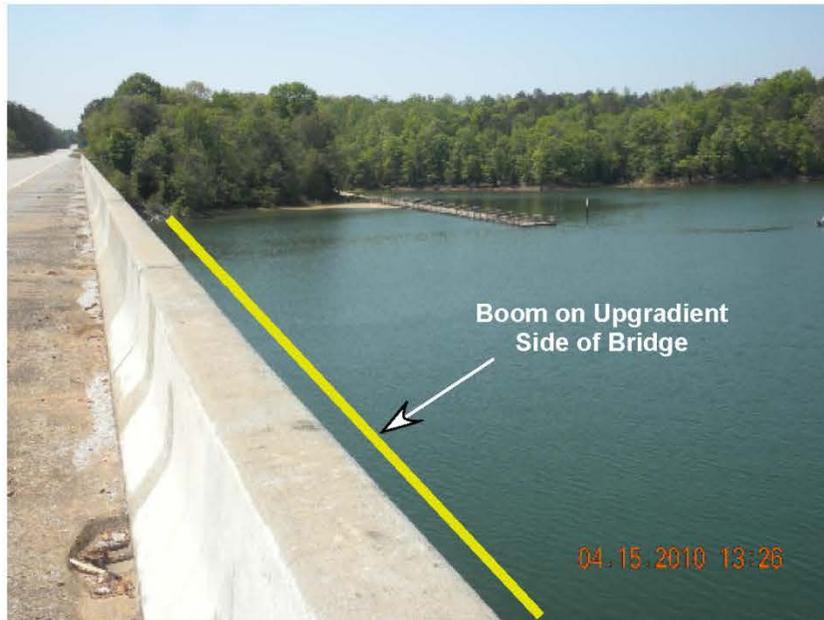
Staging - West side of bridge on N shoulder. Guardrail is on both sides of the bridge.

Traffic control required to divert traffic around staging area.

Recovery Equipment - Skimmer with 300 ft of river boom, 2" diaphragm pump located at water level at base of bridge or Vacuum truck (note suction lift may exceed lift of vacuum truck)

Temporary Storage - 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum truck





Containment Point C-6: Deploy boom on upgradient SC side of bridge



Containment Point C-6 from GA side of bridge



Containment Point C-6 Accessed from Sanders Ferry Boat Ramp on SC side.



Containment Point C-6 Accessed from Sanders Ferry Boat Ramp on SC side.



**CONTAINMENT POINT C-7, 11.44 MILES DOWNSTREAM,  
LOCATED AT GREG SHOALS BOAT RAMP**

Coordinates: (b) (7)(F), (b) (3)

Water Depth: 4 to 66 ft.

From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles to Smith McGee Bridge. Continue on SR 181 past bridge for approximately 2 miles. Turn right onto SR 187 and travel for 8.24 miles. Turn R onto Greg Shoals Road. **Greg Shoals Boat ramp (coordinates (b) )** for C-7 is at end of road. (7)

Boat - Two 14 ft Jon Boats with 15 Hp motor

Containment - Deploy 1,300 ft of river boom from boat ramp to opposite shore by boat.

Secure boom ends to E and W side of river with metal stakes. Place two (2) anchors attached to boom at 1/3 points across river.

Sweeping Boom - 300 ft

Staging - Stage equipment in parking lot of boat ramp.

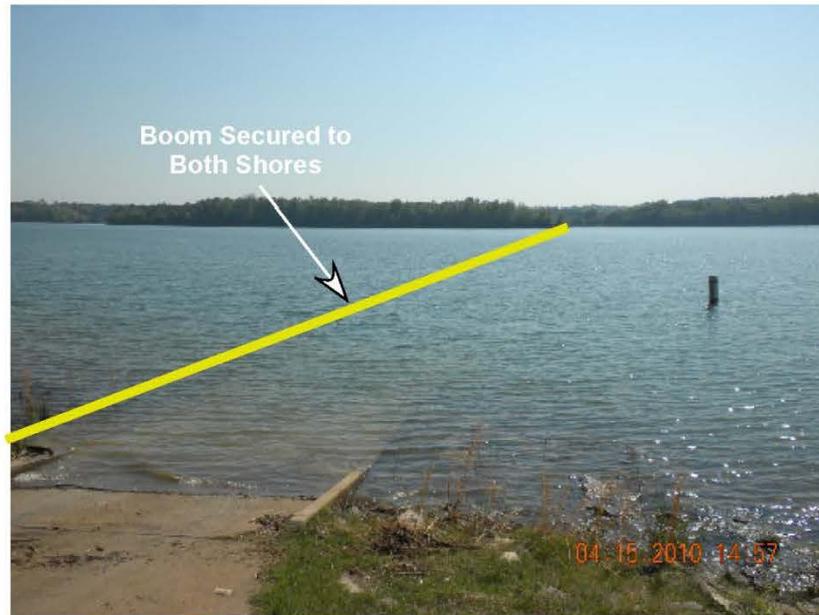
Recovery Equipment - Skimmer with 300 ft of river boom, 2" diaphragm pump or vacuum truck.

Temporary Storage - 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum truck.





Containment Point C-7: Greg Shoals Boat Ramp on SC side



Containment Point C-7: Deploy boom with 2 boats from SC side @ Greg Shoals Boat Ramp and secure to both shores



### **CONTAINMENT POINT C-8, 24.01 MILES DOWNSTREAM**

Coordinates: [REDACTED] )<sup>o</sup>  
 Water Depth: 4 to 110 ft.

#### From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva and Lowndesville. Turn left onto Main Street and continue for 1.29 miles and turn R onto SR 81 and travel 9 miles to Calhoun Falls, SC. Turn right onto SR 72 (West Savannah St) and proceed for 3.4 miles. Containment Point C-8 is on the north side of the bridge. Additional access to this containment point is via **Elbert Boat Ramp** (located off SR 72 on first road on right - coming from SC).

Boat - 14 ft Jon Boat with 15 Hp motor

Containment - Deploy 2,300 ft of river boom from N side bridge to opposite shores. Secure to both ends of boom to bridge. Place four (4) anchors at 500 ft intervals.

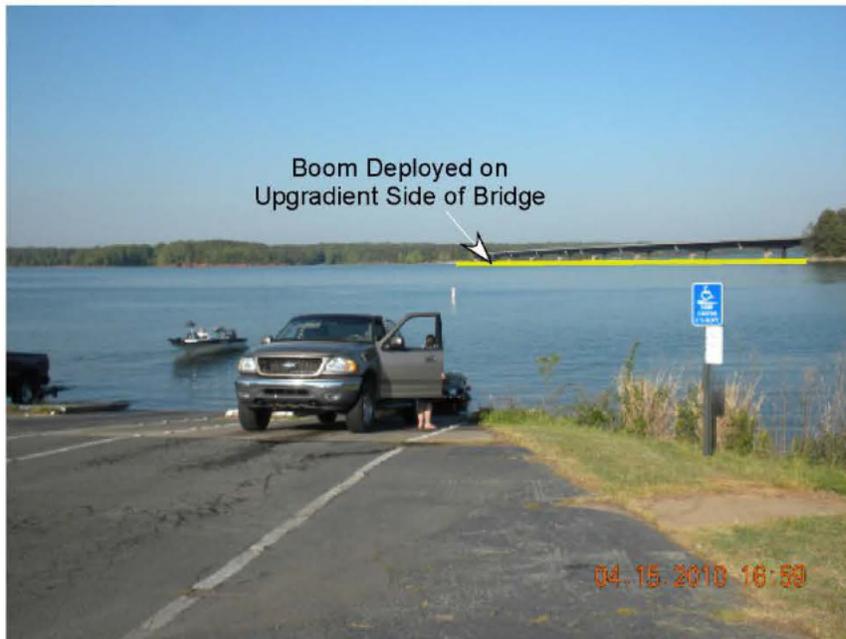
Sweeping Boom - 300 ft

Staging - There is a turnout on the GA side of the bridge on the N side to stage equipment.

Recovery Equipment - Skimmer with 300 ft of river boom, 2" diaphragm pump located at water level at base of bridge or Vacuum truck (note suction lift may exceed lift of vacuum truck)

Temporary Storage - 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum truck.





Looking toward C-8 Bridge from Elbert Boat Ramp on GA side



Containment Point C-8 on GA side: Deploy boom on upgradient side of bridge



## **CONTAINMENT POINT C-9, RUSSELL DAM, 28.11 MILES**

### **DOWNSTREAM**

Coordinates: (b) (7)(F), (b) (3)

Water Depth: 4 - 170 ft

Access: Russell Dam Overlook Drive, Russell Dam Overlook Boat Ramp (SC), or Shuck Pen Eddy Boat Ramp (GA)

#### From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 10.9 miles passing through Iva and Lowndesville. Turn left onto Main Street and continue for 1.29 miles and turn R onto SR 81 and travel 9 miles to Calhoun Falls, SC.

Access on GA Side: Turn right onto SR 72 (West Savannah St) and proceed for 3.4 miles. Pass over the Calhoun Falls Highway Bridge and turn left onto Bobby Brown State Park Road. Continue for 2.7 miles and turn L into Shuck Pen Eddy Boat Ramp. Containment Point C-9 is located immediately upstream from the Russell Dam outside the exclusion buoys. Fuel should be deflected to both sides of the dam towards the GA and SC banks.

Access on SC Side: After passing through Calhoun Falls, stay on SR 81 and travel for 3.4 miles. Turn R onto Russell Dam Overlook Drive and travel for 2.19 miles. Just prior to the dam is a dam access road. Turn right onto this road. Note that dam access on the SC side may also be from the Manor Boat Ramp. To reach the Manor Boat Ramp, turn R onto Russell Dam Overlook Drive from SR 81. Travel for 0.96 miles and turn R onto the Manor boat ramp access road. The boat ramp is at the end of this unnamed road.

Boat - Two 14 ft Jon Boats with 15 Hp motor

Containment - Deploy 2,200 ft of river boom from Shuck Pen Eddy Boat Ramp. Place four (4) anchors at 500 ft intervals. Anchor both ends of the boom with metal stakes at the toe of each side of the dam.

Sweeping Boom - 300 ft

Staging - On GA dam side, stage equipment on the dam access road. On SC side of the dam, stage equipment on dam access road off Russell Dam Overlook Drive.

Recovery Equipment - Two setups (one on GA and SC sides) - skimmer with 300 ft of river boom, 2" diaphragm pump located at water level at toe of dam aprons.

Temporary Storage - Two setups (one on GA and SC sides) 20,000 gal frac tank, 3,000 gallon tanker, or 3,000 gal vacuum truck.





Containment Point C-9 on GA side: Deploy boom outside exclusion buoys on upgradient side of Russell Dam



Shuck Pen Eddy Boat Ramp - Boat access on GA side to C-9

### **3. WATER INTAKES**



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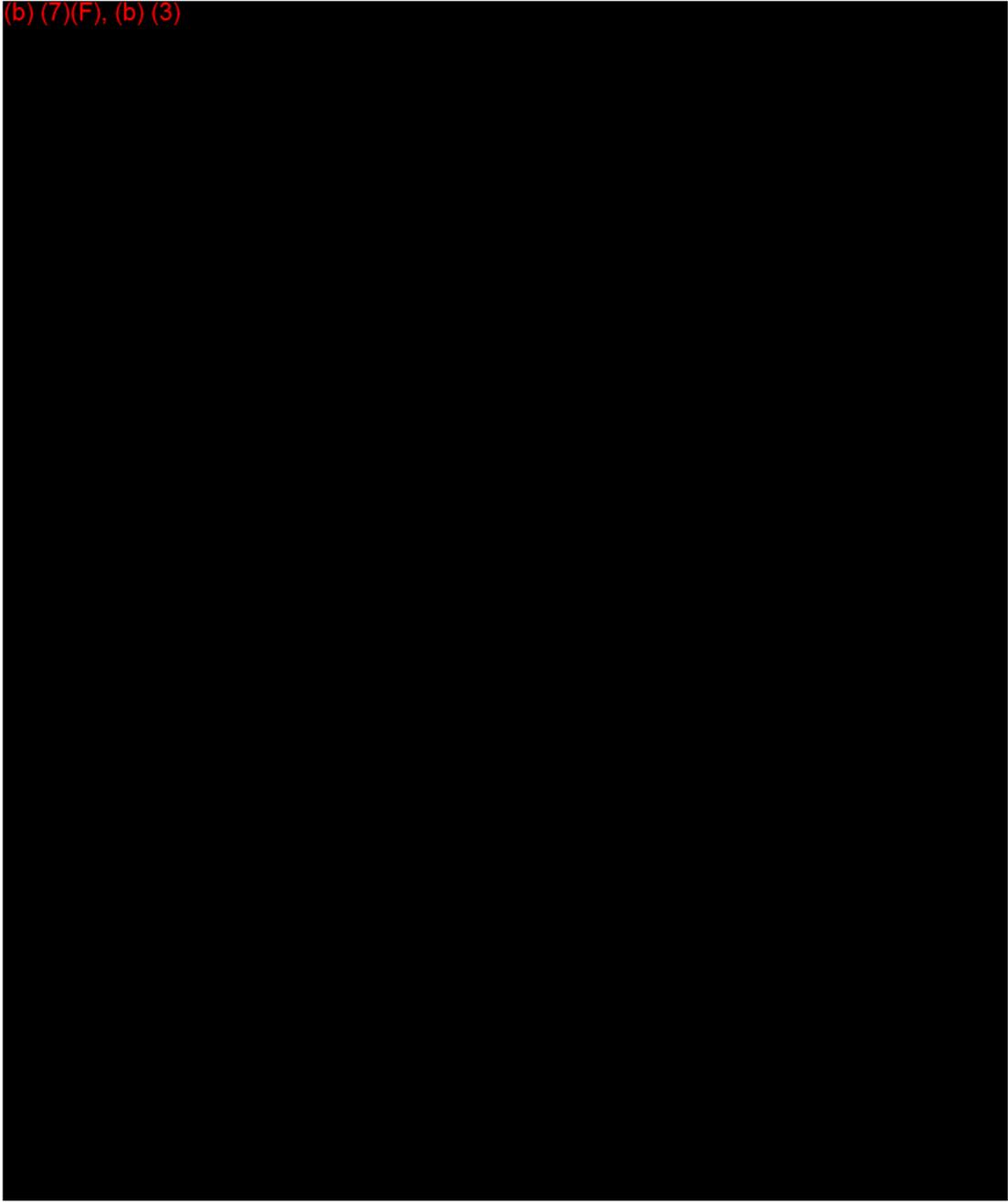
Table 2: Emergency Dam Water Intake Emergency Notifications Water Protection Requirements

Point	Contact Nos	Distance Downstream from Tank Farm	Latitude	Longitude
<b>Dam Emergency Notifications</b>				
Hartwell Dam	706-856-0300/Justin Hughes - 706-856-0365		(b) (7)(F), (b)	
Russell Dam	706-213-3452/Mark Wade - 706-213-3452	28.2 miles	(3)	
J. S. Thurmond Dam	864-333-1100, 800-533-3478	63.1		

Water Intakes Notifications & Protective Boom Requirements		Access	Boom ft	Water Use
(b) (7)(F), (b) (3)				
Subtotal			900	

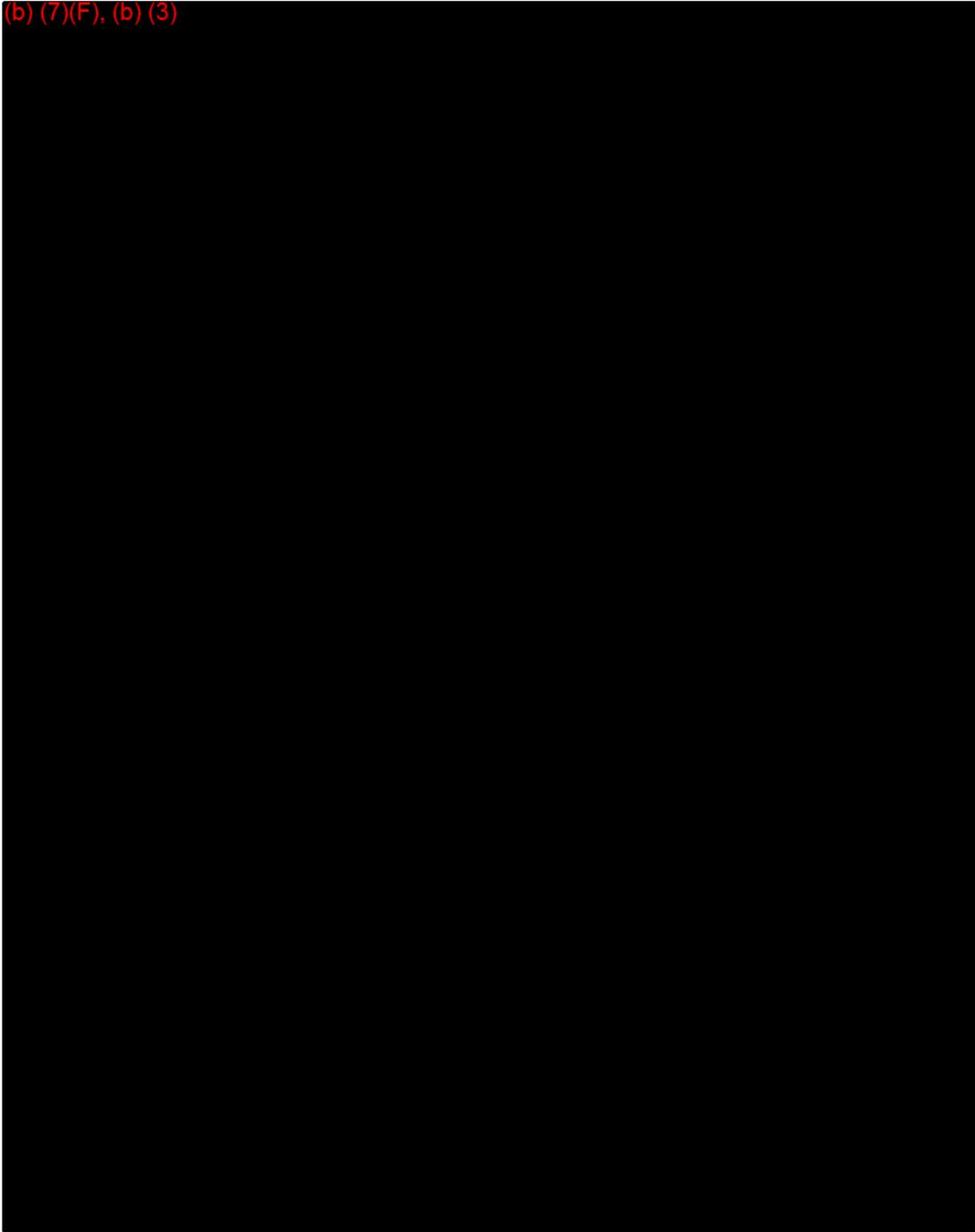
**3. WATER INTAKES**

(b) (7)(F), (b) (3)



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(b) (7)(F), (b) (3)



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## **4. BOAT RAMPS**

Table 3: Boat Ramp Locations

Point	Distance Downstream from Tank Farm	Latitude	Longitude	Access
<b>Boat Ramps</b>				
Smith-McGee, SC	2.76 miles	(b) (7)(F), (b) (3)		C-5
Mount View, SC	5.76 miles			Shoreline
Sanders Ferry, SC	8.42 miles			C-6
Greg Shoals, SC	11.44 miles			C-7
Allen Creek, SC	13.44 miles			Shoreline
Harpers Ferry, SC	15.25 miles			Shoreline
Arrowhead, SC	16 miles			Arrowhead Intake
Dry Fork, GA	16.64 miles			Shoreline
Middleton Church, GA	20.95 miles			Elberton WI & Shoreline
Latimer, SC	20.38 miles			Mohawk WI & Shoreline
Calhoun Falls, SC	20.95 miles			Shoreline
Blue Hole, SC	20.95 miles			Shoreline
Elbert, SC	23.5 miles			C-8
Millwood, SC	23.5 miles			Shoreline
Bear Garden, SC	25.3 miles			Shoreline
Manor, SC	26 miles			C-9
Shuck Pen Eddy, GA	26 miles			C-9

#### 4. BOAT RAMPS



##### *Smith-McGee Boat Ramp, Access to C-5*

Coordinates: (b) (7)(F), (b) (3) °

##### From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles to Smith McGee Bridge. Cross Smith McGee Bridge, turn right onto Sarah Simpson Road and right again in 0.17 miles into the boat ramp access road.



##### *Mt. View Boat Ramp, Shoreline Access*

Coordinates: (b) (7)(F), (b) (3) °

Water Depth: 7 to 30 ft

##### From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles to Smith McGee Bridge. Continue on SR 181 past bridge for approximately 2 miles. Turn right onto SR 187 and travel for 4.43 miles. Turn right onto Craft McGee Ferry Rd and continue for 1.46 miles. Boat ramp is at the lake.



##### *Sanders Ferry Boat Ramp, Access to C-6*

Coordinates: (b) (7)(F), (b) (3) °

##### From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles to Smith McGee Bridge. Continue on SR 181 past bridge for approximately 2 miles. Turn right onto SR 187 and travel for 6.63 miles. Sanders Ferry Boat ramp is on right just before bridge.



##### *Greg Shoals Boat Ramp, Access to C-7*

Coordinates: (b) (7)(F), (b) (3) °

##### From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles to Smith McGee Bridge. Continue on SR 181 past bridge for approximately 2 miles. Turn right onto SR 187 and travel for 8.24 miles. Turn R onto Greg Shoals Road. Boat ramp at end of road.



##### *Allen Creek Boat Ramp, Shoreline Access*

Coordinates: (b) (7)(F), (b) (3) °

##### From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva. In Lowndesville turn R onto Depot Street and travel for 0.7 miles. Turn R onto Horseshoe Road and continue for 3.1 miles. Boat ramp entrance road is just past the bridge on left.

**Harpers Ferry Boat Ramp, Shoreline Access**

Coordinates: (b) (7)(F), (b) (3)

Water Depth: 4 to 78 ft

From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva. At Lowndesville turn right onto Depot Street that turns into McCalla Park and travel for 2.93 miles. Continue straight onto Harpers Ferry Road for 2.7 miles. Boat ramp is at end of road.

(b) (7)(F), (b) (3)

**Dry Fork Landing Boat Ramp, Shoreline Access**

Coordinates: (b) (7)(F), (b) (3)

From Facility

Turn left out of facility onto SR 181 and continue for 2.4 miles. Turn R onto SR 77 (Cokesbury Hwy) and continue for 18.5 miles to Elberton. In downtown Elberton turn L onto SR 72 and continue for 2 miles and turn L onto Calhoun Falls Hwy/SR 72. Continue for 4.2 miles and turn L onto Middleton Church Rd. Continue for 3.4 miles. Turn R onto Pearl Mill Rd and travel for 3,300 ft. Turn L onto Heardmont Rd and continue for 1.7 miles. Turn L onto Dry Fork Landing Drive. The boat ramp is at the end of the road (approximately 2.3 miles).

(b) (7)(F), (b) (3)

(b) (7)(F), (b) (3)



*Calhoun Falls Boat Ramp, Shoreline Access*

Coordinates: (b) (7)(F), (b) (3)

From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva and Lowndesville. Turn left onto Main Street and continue for 1.29 miles and turn R onto SR 81. Continue for 9.1 miles on SR 81. Prior to coming to Calhoun Falls, turn R onto Calhoun Falls State Park Road. Travel for 1.26 miles and turn L onto CKP Shop Rd. Boat ramp is at end of road.



*Blue Hole Boat Ramp, Shoreline Access*

Coordinates: (b) (7)(F), (b) (3)

From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva and Lowndesville. Turn left onto Main Street and continue for 1.29 miles and turn R onto SR 81. Continue on SR 81 for 10.2 miles. In Calhoun Falls, turn R onto Filter Plant Road. Take an immediate R onto Blue Hole Road. Continue for 0.79 miles to boat ramp.



*Elbert Boat Ramp, Access to C-8*

Coordinates: (b) (7)(F), (b) (3)

From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva and Lowndesville. Turn left onto Main Street and continue for 1.29 miles and turn R onto SR 81. Continue on SR 81 for 9 miles to Calhoun Falls, SC. Turn right onto SR 72 and proceed for 3.4 miles. The Elbert Boat Ramp is located on the west side of the bridge (past containment point C-8) on first road on right - coming from SC).

 *Millwood Boat Ram, Shoreline and C-8 Access*

Coordinates: (b) (7)(F), (b) (3)

From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva and Lowndesville. Turn left onto Main Street and continue for 1.29 miles and turn R onto SR 81. Stay on SR 81 for 11.3 miles passing through Calhoun Falls. Turn R onto Lake Russell Road and travel for 0.7 miles. Turn R onto Millwood ramp road. Ramp is at end of road.

 *Bear Garden Boat Ramp, Shoreline and C-9 Access*

Coordinates: (b) (7)(F), (b) (3)

From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-10r and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva and Lowndesville. Turn left onto Main Street and continue for 1.29 miles and turn R onto SR 81. Stay on SR 81 past Calhoun Falls for 11.3 miles. Turn R onto Lake Russell Road and continue for 1.67 miles. Ramp is at end of road.

 *Manor Russell Dam Overlook Boat Ramp, SC, Access to C-9*

Coordinates: (b) (7)(F), (b) (3)

From Facility

Turn left out of facility onto SR 181. Follow SR 181 for 2.4 miles and cross Smith McGee Bridge. Continue for 3.27 miles and turn right onto SR S-4-105 and continue for 3.45 miles. Turn right onto SR 81 and continue S for 9.56 miles passing through Iva and Lowndesville. Turn left onto Main Street and continue for 1.29 miles and turn R onto SR 81. Continue on SR 81 for 9 miles. After passing through Calhoun Falls, stay on SR 81 and travel for 3.4 miles. Turn R onto Russell Dam Overlook Drive. Travel for 0.96 miles and turn R onto the Manor boat ramp access road. The boat ramp is at the end of this unnamed road.

 *Shuck Pen Eddy Boat Ramp, GA, Access to C-9*

Coordinates: (b) (7)(F), (b) (3)

From Facility

Turn Left out of facility onto SR 181. Follow SR 181 for 1.72 miles. Turn R onto SR 77 and travel for 18.7miles into Elberton. In downtown Elberton turn L onto SR 72 and travel for 14.3 miles. Turn R onto Bobby Brown State Park Road and travel for 2.8 miles. Boat Ramp is on left.

## **5. WORST CASE RESOURCES**



Table 4: Major Response Assets for Hartwell Energy Worst Case Discharge

Asset	Emergency Contact Number	No.	Capacity Available ft/gal	Total Available	Required
<b>Boom, 6 - 18 inch (draft plus freeboard), ft</b>					10,900 ft
Remtech	800-377-3648	1	2,500		
American Marine	321-636-5783	1	10,000		
Parker Systems	757-485-2952	1	5,000		
Acme	918-836-7184	1	10,000		
Hartwell COE Dam, Justin Hughes	706-856-0365	1	600		
Russell COE Dam, Mark Wade	706-213-3452	1	600		
Subtotal Available				28,700	
<b>Oil Recovery Equipment, EDRC (Effective Daily Recovery, gal)</b>					75,000 gal
<b>Required Units</b>					10
Skimmers	800-377-3648	5	48,000		
Suction Screen, 12" x 3"/Skimmers	800-377-3648	5	48,000		
Pumps	800-377-3648	17	163,200		
Wash Down Pumps, Floating	800-377-3648	1			
Rope Mops	800-377-3648	1	9,600		
Subtotal Available, units				29	
Subtotal Available, EDRC, gals				268,800	
<b>Temporary Storage, gal</b>					150,000 gal
Frac Tanks, 20,000 gal		7	20,000	140,000	
Evergreen, Evans, GA	706-650-1695/(770) 298-6989				
Rain for Rent, Kennesaw, GA	678-594-6601				
Tankers	800-377-3648	5	3,000	15,000	
All Terrain Tankers	800-377-3648	2	1,600	3,200	
Vacuum Trucks	800-377-3648	4	3,000	12,000	
Environmental Remedies, Atlanta, GA	800-399-2783				
Pillow Tanks	800-377-3648	5	3,000	15,000	
Portable Pools	800-377-3648	2	4,400	8,800	
Portable Pools	800-377-3648	2	2,500	5,000	
Portable Tanks	800-377-3648	4	500	2,000	
Subtotal Available				201,000	
<b>Boats</b>					8
Remtech, Marietta, GA	800-377-3648	3			
Phillips	800-947-6805	2			
Hepaco, Greenville, Augusta, Tucker	800-888-7689	2			
Eagle/SWS	877-742-4215	2			
Subtotal Available				9	
<b>Alternate Backup Resources</b>					
Hepaco, Greenville, Augusta, Tucker	800-888-7689				
Eagle/SWS	877-742-4215				

# EMERGENCY RESPONSE ACTION PLAN (ERAP)



## Oglethorpe Power Corporation Hartwell Energy Facility

415 Smith-McGee Highway  
Hartwell, Georgia 30643

April 2013

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## 1.0 Facility-Specific Response Plan

### 1.1 Emergency Response Action Plan

The information presented in this section is intended to provide information necessary for an immediate response action. Detailed information related to Oil and Hazardous Material Spill Response is contained in the following sections of this document.

In the event of a petroleum or hazardous material spill, the Hartwell Energy Facility employee(s) discovering the spill are to take immediate measures to stop the spill or reduce the immediate danger. As soon as possible, the employee(s) are to summon assistance and report the spill to the Qualified Individual on scene at the time of the incident. The employees on duty are to follow the procedures outlined below in reporting a spill. In the event that a spill occurs during a shift when the plant management is not present or any hours when the administrative office is closed or inactive, employees are instructed to report any spill to the designated plant management personnel. The plant management personnel will report the spill to the appropriate authorities (see Spill Classification and Required Actions below). Pertinent telephone numbers are also included below. The Spill Reporting Procedure is listed in Appendix A.

#### Spill Classification and Required Actions

Spill Classification	Perform the Following Activities
A spill of Petroleum/Oil that remains inside a building or on an exterior impervious surface when it is not raining.	No outside notifications are required. Cleanup must begin immediately.
A spill resulting in a visible oil sheen, film or discoloration on waters of the United States	Report the spill immediately to the National Response Center at 1-800424-8802.
A spill of petroleum/oil (> 42 gallons but <1,000 gallons) that travels off site.	Report the spill <u>immediately</u> to EPD by telephone and by using Worksheet 3 information. Contact EPD at 1-800-241-4113 and the National Response Center at 1 800-424-8802. Submit written report to EPD.
A spill of petroleum/oil >1,000 gallons or two spills > 42 gallons within a 12 month period.	Report the spill <u>immediately</u> to EPD by telephone and by using Worksheet 3 information. Contact EPD at 1-800-241-4113 and the National Response Center at 1 800-424-8802. Amend the SPCC Plan and submit Report to EPA within 60 days in accordance with 40 CFR 112.4(a).

## Hartwell Energy Facility

<p>A release of No. 2 Fuel Oil by the 12-inch steel supply pipeline that:</p> <p>(1) Caused a death or a personal injury requiring hospitalization;</p> <p>(2) Resulted in either a fire or explosion not intentionally set by the operator;</p> <p>(3) Caused estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding \$50,000;</p> <p>(4) Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or</p> <p>(5) In the judgment of the operator (Hartwell Energy Facility) was significant even though it did not meet the criteria of any other paragraph of this section.</p>	<p>Report the spill immediately to the National Response Center at 1-800-424-8802.</p> <p>As soon as practicable, but not later than 30 days after discovery of the accident, file an accident report on DOT Form 7000-1.</p>
--	---

Hartwell Energy Facility

**1.1.1 Qualified Individual Information (Partial)**

Name	Position	Telephone
Mike McCollum	Qualified Individual (Local On-Scene Spill Response Commander) (O&M Supervisor)	(O) 706-856-8009 (H) (b) (6) (C) [REDACTED]
Kenn Pittman	Alternate Qualified Individual	(O) 706-376-7010 (C) (b) (6)
Brad Jordan	Alternate Qualified Individual	(O) 706-376-7010 (H) (b) (6)

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**1.1.2 Emergency Notification Phone List (Partial)**

ORGANIZATION	CONTACT	PHONE NUMBER
Primary Qualified Individual	Mike McCollum	(O) 706-856-8009 (H) (b) (6) (C) [REDACTED]
Alternate Qualified Individual	Kenn Pittman	(O) 706-376-7010 (C) (b) (6)
Alternate Qualified Individual	Brad Jordan	(O) 706-376-7010 (H) (b) (6)
Phillips Recoveries, Inc. (Emergency Contractor)	Michael Phillips	(O) 800-947-6805 (H) (b) (6) (C) [REDACTED]
Remtech Engineers (Backup Emergency Contractor)	Mark Ryckman	800-377-3648 x 203 or 770-427-7766 x 203 (C) (b) (6)
OPC Director of Environmental Affairs	Doug Fulle	(O) 770-270-7166 (H) (b) (6) (C) [REDACTED]
Plantation Pipe Line Company		(800) 510-5678
Colonial Pipeline Company		(800) 926-2728
Williams Gas Pipeline - Transco		(800) 440-8475
Weather Report	NOAA	770-632-1837
Hospital	Hart County Hospital	706-376-3921 or 911
Fire	Hart County Fire Department	706-376-8515 or 911
Fire / Hazmat	City of Hartwell Fire Dept	706-856-3228 or 706-856-3209
Medical/Ambulance		706-365-3421 or 911
Federal On-Scene Coordinator (OSC):	EPA Region IV (24-hr Spill Line)	404-562-8700
Georgia Environmental Protection Div. Emergency Response Team**	24-hour Dispatch (in state)	800-241-4113 404-656-4300
National Response Center		800-424-8802
U.S. EPA, Region IV		404-562-8700
US DOT PHMSA OPS		202-366-4433
U.S. Coast Guard – Savannah		912-652-4181
City of Elberton Georgia	Water Withdrawal	706-283-5321
City of Hartwell, Georgia	Water Withdrawal	706-856-3211
City of Abbeville, South Carolina	Water Withdrawal	Normal 864-366-5058 Emergency 864-366-5677
US Army Corps of Engineers	Hartwell Dam & Lake Discharge	706-856-0300 or 888-893-0678
US Army Corps of Engineers	Russell Dam & Lake Discharge	706-213-3400 or 800-944-7207

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**1.1.3 Spill Response Notification Form**

The Spill Response Notification Form included in Appendix A, should be prepared as completely as possible before notifying the National Response Center, the U.S. EPA, US DOT, or the Georgia Environmental Protection Division. Information contained in this form will be used to determine the nature of the spill and any special requirements that may exist. The accuracy of this report is essential in assessing the situation and in preparing required regulatory reports.

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**1.1.4 Response Equipment List and Location****1.1.4.1 Location of Spill Response Materials (on site)**

A number of spill response materials are available on site. They are stored in a secured area of the shop, in the foam building, and in a contractor's storage building on the southwest corner of the site. These materials include absorbent pads, absorbent booms, absorbent socks, hay, shovels, protective equipment, plastic bags, and open top recovery drums. The major source of emergency response equipment and manpower will be provided by the Oil Spill Response Organizations (OSRO) listed below.

**1.1.4.2 Spill Response Contractors**

Hartwell Energy Facility has spill response assistance contracts with outside companies. Outside assistance is available from the following contractors:

- |   |   |
|---|---|
| 1. Phillips Recoveries, Inc.<br>Point of Contact: Mike Phillips | Office: (800) 947-6805<br>Home: (b) (6)<br>Cellphone: (b) (6)     |
| 2. Remtech Engineers<br>Point of Contact: Mark Ryckman          | 800-377-3648 x 203 or<br>770-427-7766 x 203<br>Cellphone: (b) (6) |

**1.1.5 Response Equipment Testing and Deployment**

A list of the equipment available from these contractors is contained in Appendix A of the FRP. Spill response deployment resources, locations, recovery, and protection points are discussed in the spill response deployment plan located in Appendix C.

Hartwell Energy Facility

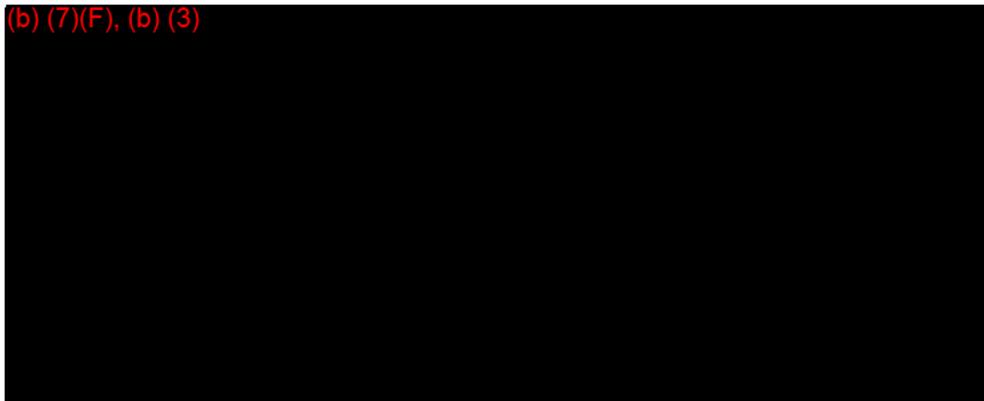
**1.1.6 Facility Response Team**

The Facility Response Team consists of the following personnel:

Name	Position	Telephone
Mike McCollum	Qualified Individual (Local On-Scene Spill Response Commander) (O&M Supervisor)	(O) 706-856-8009 (H) (b) (6) (C) [REDACTED]
Kenn Pittman	Alternate Qualified Individual	(O) 706-376-7010 (C) (b) (6)
Brad Jordan	Alternate Qualified Individual	(O) 706-376-7010 (H) (b) (6)
Andy Wiltshire	Member	(O) 706-376-7010 (O) 706-779-7331
Debbie McKee	Member	(O) 706-376-7010 (H) (b) (6)
Greg Gillespie	Member	(O) 706-376-7010 (H) (b) (6)
Rusty Donald	Member	(O) 706-376-7010 (H) (b) (6)
Doug Fulle	OPC Vice President of Environmental Affairs	(O) 770-270-7166 (H) (b) (6) (C) [REDACTED]
Phillips Recovers, Inc	Spill Response Contractor	800-947-6805 864 947-6861 (C) (b) (6)
Remtech Engineers	Backup Spill Response Contractor	800-377-3648 or x203 770-427-7766 x203 (C) (b) (6)

**1.1.7 Evacuation Plan**

(b) (7)(F), (b) (3)



(b) (7)(F), (b) (3)

**1.1.8 Immediate Actions**

Through the implementation of the provisions found in this plan, the Hartwell Energy Facility supports the safety of facility personnel, the surrounding community, and prevents or mitigates discharges.

The Oil and Hazardous Material Spill Response Plan will be implemented by the Qualified Person, or a designated, qualified alternate, upon notification of a spill. The Qualified Individual, or designated alternate, will then serve as the Local OSC. The OSC will determine what assistance is required and will contact the necessary parties and organizations to conduct required containment, clean-up, and removal activities in the event of a spill. The Qualified Individual will continue as the On-Scene Commander unless and until relieved by a Corporate On-Scene Commander, a Federal On-Scene Commander, a State OSC, or another qualified, alternate OSC.

The Local On-Scene Commander shall take the following actions:

- Investigate any and all reports of leaks or spills to determine what actions need to be taken and which actions can be taken immediately to mitigate the spills or leaks.
- In the event of a major spill, determine if the spill can be stopped or contained by simple, immediate actions which can be performed safely with available personnel and equipment.
- If required, close all or part of the facility for the duration of the emergency.
- If fire or explosion potential is high, contact the local Hart County Sheriff's Department, the Hart County Fire Department, and the Georgia Highway Patrol to aid in the evacuation of the area, to prevent entry into the area by unauthorized persons, and to block off potentially affected highways.
- Notify the appropriate emergency response and regulatory agencies and activate the spill response plan.
- Contact corporate and contract personnel for immediate assistance with spill response and supplies.
- Contact spill response contractors to standby for or begin mobilization of personnel and equipment.

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- Begin recovery of spilled material and materials contaminated by spilled material as soon as possible and safely practical.
- Designate an equipment staging area and a separate area on the site for the safe containment and storage of contaminated soils, contaminated equipment and spilled materials. This containment area will serve to control materials and protect the environment until the ultimate disposition of the soils and materials can be determined and affected.

Spill response deployment resources, locations, recovery, and protection points are discussed in the spill response deployment plan located in Appendix C.

The Hartwell Energy Facility personnel are not equipped or trained to conduct spill response and will rely on contracted spill response contractors for all cleanup operations. The contracted spill response contractors will prepare a site safety plan for use during a spill event. An example site safety plan provided by Remtech is located in Appendix A.

### **1.1.9 Facility Diagram**

Facility diagrams and maps attached in Appendix B are as follows:

- Figure 1 – Site Location Map
- Figure 2 – Site Topographic Map
- Figure 3 – Site Plan
- Figure 4 – Site Drainage Plan
- Figure 5 – Site Evacuation Plan
- Figure 6 – Receiving Pipeline Diagram
- Figure 7a – Map of Sensitive Areas (5 mile radius of Facility)
- Figure 7b – Map of Sensitive Areas (1 mile radius of Facility)

Hartwell Energy Facility

## 1.2 Facility Information

The Hartwell Energy Facility lies within a site of approximately 300 acres. It is located about eight miles southeast of Hartwell, Georgia and approximately 1.0 mile west of the Savannah River. It was constructed in 1994. Hartwell Energy is a peak energy generation facility and uses natural gas with supplementary No. 2 fuel oil for firing two combustion turbines, generating electricity during peak demand periods. It can receive natural gas from a Williams/Transco owned pipeline, No. 2 fuel oil from Plantation Pipeline Company through an Oglethorpe Power Corporation owned pipeline and No. 2 fuel oil by tank truck. It stores No. 2 fuel oil on site in two tanks. Pertinent facility information is provided below:

Company Name:	Hartwell Energy Facility
Owner	Oglethorpe Power Corporation 2100 East Exchange Place Tucker, Georgia 30084
Site Address:	415 Smith-McGee Highway Hartwell, Hart County, Georgia 30643
Latitude/Longitude:	(b) (7)(F), (b) (3)
Facility Phone Number:	706-376-7010

Operation of the two turbines requires the firing of either natural gas or No. 2 fuel oil which produces steam from injected demineralized water. The steam thus drives the turbines and in turn produces the electrical energy. A significant release or spill from the Hartwell Energy facility has the potential for entering the environment and further, the Savannah River. A site location map is provided on Figure 1 and Site topography is presented in Figure 2.

The primary onsite buildings include the control/administration/storage building, a separate storage building, the ultrafiltration building, foam (fire suppressant) building and the fire water pump house. The uncovered yard(s) are mostly paved with concrete, gravel or asphalt and are used as driveways and/or for temporary staging of equipment, recyclables and maintenance equipment. Small quantities of gasoline, oils and other chemicals are used for routine vehicle servicing and maintenance.

The Hartwell Energy facility is staffed continuously on all hours of operation and during shut down periods. The typical work week is five days with weekend coverage provided on a rotational basis. There are currently 10 employees at the site.

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## Hartwell Energy Facility

No. 2 fuel oil and diesel fuel are stored in above ground storage tanks (AST's). There is one underground storage tank (UST) present at the facility. Secondary containment is provided for all AST's.

Hartwell Energy Facility

**Appendix A –**

- **Environmental Incident Report Form**
- **Spill Reporting Procedure**
- **Emergency Notification Phone List**
- **Example Site Safety Plan**

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Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
See link: <http://sp365/sites/OPCENV/ENVRE GADMIN/SitePages/Home.aspx>  
Click on Environmental Incident Report Template on the Left Column.



## OPC ENVIRONMENTAL INCIDENT REPORT FORM

### Requestor Information

Reporting Associate:: Date of Report:

Associate Number: Extension:

Department:

### Incident Information

Facility:

Location:

Description of Event:

How identified: Select...

Date and Time of Incident:

Date and Time Incident identified:

Type of Incident:

- Spill
- Air Release
- Other

Material Involved:

- Oil Type:
- Hazardous Material Type:
- Hazardous Waste Type:
- NOX Type:
- Other

R1-1

**Incident Report**  
**Attorney – Client Privileged Communication**

Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
 See link: <http://sp365/sites/OPCENV/ENVREGADMIN/SitePages/Home.aspx>  
 Click on Environmental Incident Report Template on the Left Column.

How much was released:  Select... If other:

Immediate Actions Taken: (attach additional sheet and pictures if needed)

Follow-up actions to date: (attach additional sheet if needed)

Root Cause Analysis (to be submitted separately from Incident Report)

Root Cause Analysis Contact Associate:   
 Email (if not OPC):

Scheduled Completion Date:

---

**INTERNAL NOTIFICATIONS:**

<input type="radio"/> Yes <input type="radio"/> No	Spill Response Coordinator / Qualified Individual	Date/Time Notified: <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Facility – Plant Manager / O&M Supervisor	Date/Time Notified: <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Fleet Manager/ Manager Contract Assets	Date/Time Notified: <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	Senior Vice President	Date/Time Notified: <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	OPC Public Relations	Date/Time Notified: <input type="text"/>
<input type="radio"/> Yes <input type="radio"/> No	OTHER (specify email address)	<input type="text"/> Date/Time Notified: <input type="text"/>
Legal Department: (Always Notified) Charles Whitney Annalisa Bloodworth Date/Time Notified: <input type="text"/>		
VP, Environmental Affairs: (Always Notified)		

R1-2

**Incident Report**  
**Attorney – Client Privileged Communication**

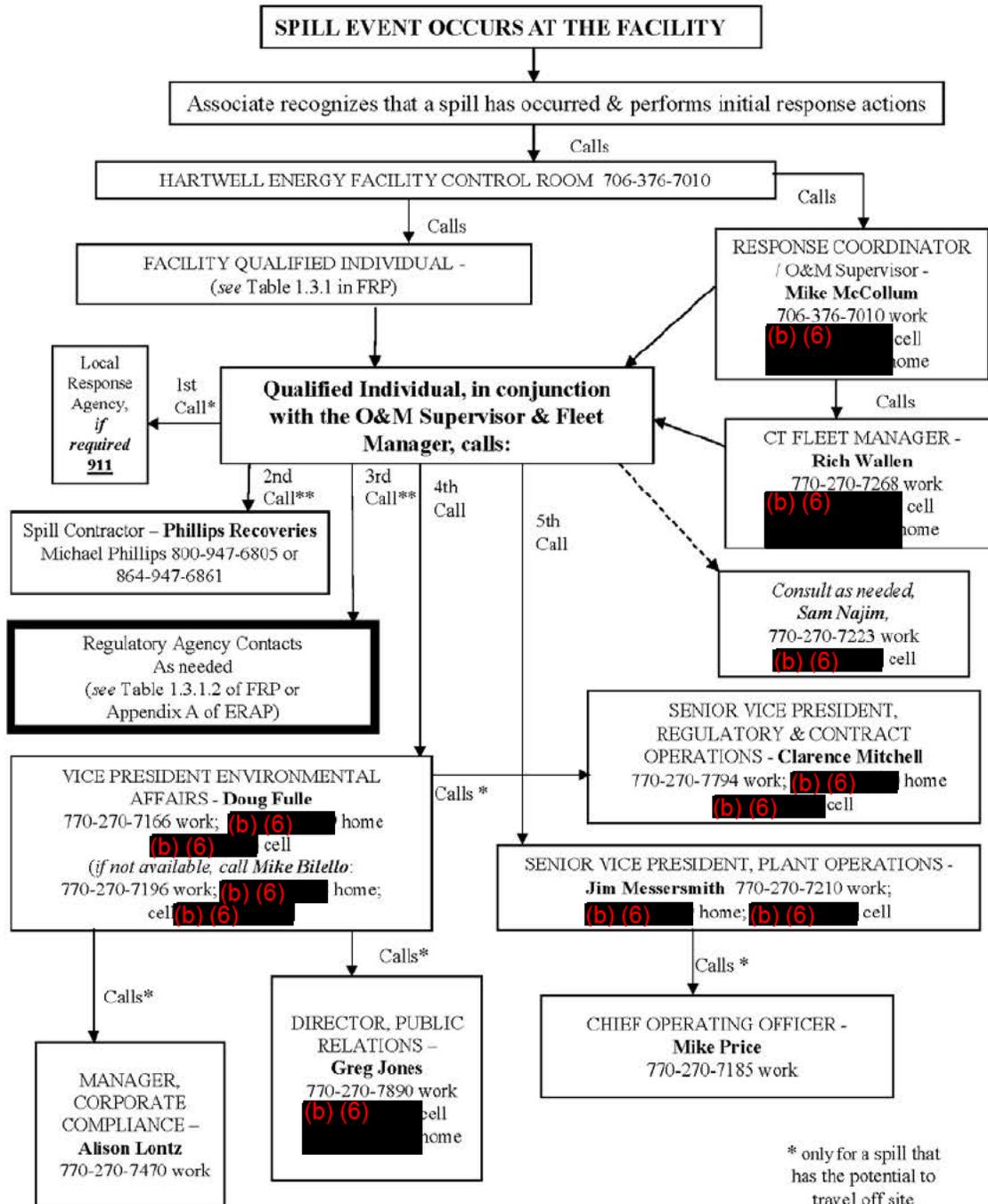
Complete Form in Infopath, DO NOT FILL OUT PAPER COPY.  
 See link: <http://sp365/sites/OPCENV/ENVREGADMIN/SitePages/Home.aspx>  
 Click on Environmental Incident Report Template on the Left Column.

Doug Fulle		
Date/Time Notified: <input type="text"/> <input type="text"/>		
Chief Operating Officer: (Always Notified)		
Mike Price		
Date/Time Notified: <input type="text"/> <input type="text"/>		
<b>AGENCY NOTIFICATIONS:</b>		
Agency:	Agency Contact:	Title:
<input type="text"/>	<input type="text"/>	<input type="text"/>
Date/Time:		OPC Associate:
<input type="text"/> <input type="text"/>		<input type="text"/>
Brief description of Notification and any Agency instructions.		
<input type="text"/>		
Additional Information:		
<input type="text"/>		
(Report must be submitted by end of business day of the incident - if additional information becomes available, an amended form should be submitted.)		
<b>Review &amp; Routing</b>		
Reviewer:		
Douglas Fulle VP, Environmental Affairs		
Comments:		
<input type="text"/>		
<u>Notifications to be sent:</u> chuck.whitney@opc.com annalisa.bloodworth@opc.com mike.price@opc.com		
Attorney – Client Privileged Communication		

R1-3

**Incident Report**  
**Attorney – Client Privileged Communication**

### HARTWELL ENERGY FACILITY SPILL REPORTING PROCEDURES



\* only for a spill that has the potential to travel off site

7/17/14

Hartwell Energy Facility

**Emergency Notification Phone List**

ORGANIZATION	CONTACT	PHONE NUMBER
Hartwell Energy Qualified Individual (Primary)	Mike McCollum	(O) 706-856-8009 (H) (b) (6) (C) (b) (6)
Hartwell Energy Qualified Individual (Alternate)	Kenn Pittman	(O) 706-376-7010 (C) (b) (6)
Phillips Recoveries, Inc. (Emergency Contractor)	Michael Phillips	800-947-6805 (H) (b) (6) (C) (b) (6)
Remtech Engineers (Backup Emergency Contractor)	Mark Ryckman	800-377-3648 x 203 or 770-427-7766 x 203 (C) (b) (6)
Plantation Pipe Line Company		(800) 510-5678
Colonial Pipeline Company		(800) 926-2728
Williams Gas Pipeline - Transco		(800) 440-8475
OPC Vice President of Environmental Affairs	Doug Fulle	(O) 770-270-7166 (H) (b) (6) (C) (b) (6)
Weather Report	NOAA	770-632-1837
Hospital	Hart County Hospital	706-376-3921 or 911
Fire	Hart County Fire Department	706-376-8515 or 911
Fire / Hazmat	City of Hartwell Fire Dept	706-856-3228 or 706-856-3209
Medical/Ambulance		706-365-3421 or 911
CHEMTREC		1-800-424-9300
Federal On-Scene Coordinator (OSC):	EPA Region IV (24-hour Spill Line)	404-562-8700
Georgia Environmental Protection Div. Emergency Response Team**	24-hour Dispatch (in state)	800-241-4113 404-656-4300
National Response Center		800-424-8802 202-267-2675
U.S. EPA, Region IV		404-562-8700
US DOT PHMSA OPS		202-366-4433
U.S. Coast Guard – Savannah		912-652-4181
City of Elberton Georgia	Water Withdrawal	706-283-5321
City of Hartwell, Georgia	Water Withdrawal	706-856-3211
City of Abbeville, South Carolina	Water Withdrawal	Normal 864-366-5058 Emergency 864-366-5677
US Army Corps of Engineers	Hartwell Dam & Lake Discharge	706-856-0300 or 888-893-0678
US Army Corps of Engineers	Russell Dam & Lake Discharge	706-213-3400 or 800-944-7207

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**DRAFT**

**Remtech Generic Site  
Safety Plan  
Chemical Plant Fire  
Response**

Project Name: Chemical Plant Fire Response  
Project Number: 3773  
Date: 5/24/14  
Location:

## I. Emergency Phone Numbers:

Police: 911  
Fire: 911  
Ambulance: 911

## Client Environmental Affairs:

## Site Client Contact:

Remtech Engineers: 770-427-7766 x 9 or Mark D Ryckman, cell – (b) (6), Larry Seabolt, cell – (b) (6)

Remtech Corporate Physician: Atlanta Occupational Medicine, Dr. Steve Schram/Dr. James Wheeler,  
404-256-1727, 770-256-1920

Hospital: Project Specific

## II. Scope of Work

Remtech Engineers was engaged by Client to: 1) contain and pump stormwater from fire-impacted areas including tank dikes, sumps, containment areas and transfer to onsite frac tanks, 2) load waste tankers from frac tanks, 3) remove floating scum and filter stormwater discharges from drainage pond, and 4) clean fire impacted areas/material and provide support services as requested by Client.

## III. Organization &amp; Authority

Remtech personnel working with hazardous materials have completed 40-hour hazardous waste site activity training. The site safety officer has completed the required 8-hour supervisory course as required by OSHA 1910.120. The site safety officer reports to Remtech's corporate safety supervisor. The site safety officer's responsibility includes:

1. Ensuring that safe practices are followed at the site.
2. Determining and revising, as appropriate, the proper level of personal protective gear, including fall protection.
3. Monitoring environmental conditions at the site and informing workers as appropriate.
4. Maintaining site safety records.
5. Maintaining the integrity of the work zone (exclusion), contamination reduction zone, and clean zone.
6. Ensuring that appropriate personnel and equipment decontamination procedures are followed.
7. Ensuring that first aid and appropriate medical treatment is obtained for injured workers.

The following personnel and job functions are described below:

Project Manager: Larry K Seabolt, Jr.  
 Alternate Project Manager: Mark D. Ryckman  
 Corporate Health and Safety Manager: M. D. Ryckman

#### IV. Site & Potential Hazard Evaluation:

##### Site Description

The subject property encompasses \_\_\_\_\_ acres on Address: \_\_\_\_\_ The parcel ID is \_\_\_\_\_. The neighborhood is classed \_\_\_\_\_.

Client is a formulator and packager of specialty chemicals, including aerosols, liquids and lubricants including industrial cleaners and automotive chemicals.

This site is listed on the Georgia Hazardous Waste Site Inventory, other regulatory lists or permits: \_\_\_\_\_

##### Area Affected

Portions of this facility caught fire on \_\_\_\_\_. The principal areas of potential concern for encountering chemicals include the old and new tank farms, drum and chemical storage areas, stormwater and groundwater treatment areas. The fire was reportedly extinguished with 1,300 gallons of Ansulite 3% AFFF foam with an estimated 1,800 gpm of water applied to the fire between 2100 hours on 5/23/14 to 0500 hours on 5/24/14.

Stormwater and fire fighting runoff entered an unnamed urban drainage ditch and traveled 1.08 miles downstream prior to entering \_\_\_\_\_ creek. Several thousand fish were killed.

##### Surrounding Population

Properties in the surrounding area in predominately industrial, but also includes other sensitive receptors \_\_\_\_\_

##### Topography

The site is located in an area of rolling hills. Topographic relief across the site varies from highs of 990 + MSL to 815 ft at the discharge point.

##### Weather Conditions

Daily weather radar shall be monitored. Remtech is responsible for being onsite to prevent stormwater from process/fire impacted areas from entering offsite stormwater. Impacted stormwater will be pumped into 20,000 gal frac tanks or the old/new tank farms until capacity is available in frac tanks.

##### Potential Hazards

The fire at this facility consumed a considerable amount of raw materials and finished product. Product/burn residues, however, remains in above ground storage tanks, tank dikes, sumps, drums, piping, and manholes.

Recognition of potential chemicals encountered onsite shall be brought to the attention of the site safety officer. The following observations will require notification of the site safety officer:

- Discoloration of Soil or Chemicals
- Drums
- Containers
- Odors or unusual sensations
- Unusual Sounds (hissing, blasts, etc.)
- Heat of Reaction (heat waves, sensible heat emanating from containers or material)

Bubbling Frothing, foaming, boiling of materials  
 Depressions containing unknown materials  
 Vaults containing unknown materials  
 Pits containing unknown materials

Remtech's principal scope of work is dealing with Ansulite 3% FFF foam and contaminated stormwater that may contain some of the diluted products listed below:

*Potential Chemical Hazards*

1,1,1-Trichloroethane  
 1,1,2-Trichloroethane  
 1,1-Dichloroethane  
 1,1-Dichloroethene  
 1,1-Dichloropropane  
 1,2-Dichloroethane  
 Acetone  
 Benzene  
 bis (2-Ethylhexyl) phthalate  
 Carbon tetrachloride  
 Chloroethane  
 Chloroform  
 Cis-1,2-Dichloroethene  
 Cumene  
 Cyclohexane  
 Dichlorodifluoromethane  
 Dichloromethane  
 Ethylbenzene  
 Glycol ethers  
 Hexachlorobutadiene  
 Isophorone  
 Methanol  
 Methyl ethyl ketone  
 Naphthalene  
 p-Dichlorobenzene  
 Styrene  
 Tetrachloroethane, N.O.S.  
 Tetrachloroethene  
 Tetrachlorethylene  
 Toluene  
 Trichloroethene  
 Trichloroethylene  
 Trichlorofluoromethane  
 Vinyl chloride  
 Xylenes  
 Pond scum containing fire debris, algae, iron bacteria, AFFF foam

A-134A Propellant, 1,1,1,2-tetrafluoroethane  
 A-17/152 Blend Propellant, 1,1-difluoroethanol  
 A-46 Propellant, petroleum gases, liquefied, sweetened  
 A-70 propellant, petroleum gases, liquefied, sweetened  
 Carbon Dioxide  
 Diesel Fuel #2  
 Ethanol DSA  
 Heptane  
 Isopropyl Alcohol  
 Kerosene  
 LVP 100  
 Methylacetate  
 Methylene chloride

Neutral Oil 100, distillates petroleum  
 Nitrogen, compressed  
 Perchloroethylene  
 Sulfuric acid  
 VM&P Naptha

*Potential Physical/Biological Hazards*

*Site:*

Unstable building walls, roofs, pads  
 Unstable overhead piping  
 Structurally compromised ASTs  
 Drums, bulging, vented  
 Sumps, pits, stormwater manholes  
 Heavy duty equipment, hydraulic lines, equipment reach and impact  
 Demolition Activities by Others

*Pond:*

Unstable ground  
 Potholes, depressions, ruts around pond shore  
 Heavy Vegetation, briars, poison ivy  
 Slippery concrete outfall  
 Variable depth pond 0 to 8 ft+ deep  
 Soft benthic material on pond bottom with quicksand type properties  
 Debris in Pond

*Potential Task Specific Hazards*

Frac Tanks walkways  
 Pressurized stormwater pumps, hoses, and tank connections  
 Vacuum Truck Suction Hoses  
 Portable Compressor Equipment, 100 psi

Water safety, outboard motor, boat  
 Boom deployment  
 Construction and maintenance of pond discharge carbon/straw filter  
 Clearing brush with chain saws and brush cutting equipment  
 Operating Bobcat, power broom, vacuum truck, and pressure/steam cleaning equipment

General Cleanup Activities - struck by injuries - stay out of way operating equipment reaches (minimum 25 ft) and potential failure zones of hydraulic lines, cable, etc.

Communications - Maintain line of sight communications and cell phone access while of site with equipment operators and personnel operating equipment. Do not enter zone of influence without acknowledgement from operator to cease operations.

Lockout/Tagout - ensure that all electrical and mechanical systems are locked out prior to working in any area.

Sampling & Support Activities - Running water, first aid kit, and eye wash shall be maintained on site at all times.

IV. Site Control

No smoking, eating, chewing gum or tobacco, or drinking is allowed in the Hot Zone or Contamination Zones. Security is to be provided by owner to ensure that unauthorized personnel are kept off the property during site activities. Designated areas will be identified.

All workers are to avoid touching, contacting, walking through, or approaching chemicals. Defensive avoidance postures shall be taken upon encountering any unusual observations. Any unusual observations shall be reported to the site safety officer.

Fugitive Dust Controls

This site contains chemical burn residues that have "tar and carbon black like" properties. Wetting agents with water mist are required to minimize generation of fugative dust propagation, especially when brooming or driving vehicles through these areas. At a minimum, personnel working in these areas will be required to wear Level D PPE with a P-100 rated dust mask.

Site operations will be maintained in three separate work zones: a work/exclusion zone (where potential exposure to site contaminants exist, a contamination reduction zone (where personnel and equipment decontamination operations are performed, and clean zone (where site support facilities are located). The control line (between the contamination reduction zone and clean zone) will be clearly marked and maintained. Personnel will always work according to the buddy system.

The exclusion zone is defined as the footprint of buildings where fire occurred, sumps, pits, or containment areas, or any area containing product or burn residues. The contamination reduction zone is defined within 10 ft of the frac tanks on The W side of the site. The clean area is defined as the area outside the fence along Industrial Park Drive and outside 5 ft on the N side of the frac tanks near the front office entrance and on the E side plant access road.

Remtech's primary work area will be in areas outside the immediate burn areas in driveways & alleys that are not contaminated or are part of the CRZ zone.

#### Site Communications

On-site communications will be established and consist of verbal communications, hand signals, line-of-sight communications, and cell phones. To summon emergency support services, cellular telephones will be available on site.

#### Safe Operating Practices

Remtech Health and Safety Procedures apply to Remtech's hazardous waste and emergency response operations. These procedures are contained in Remtech's Health and Safety Procedures Manual that is reviewed with and provided to site supervisors during OSHA Supervisors Training. Questions on the applications of these procedures to site operations should be directed to Remtech's Corporate Health and Safety Manager.

#### VI. PERSONAL PROTECTIVE EQUIPMENT

The following levels of protection are designated for each task performed in the site work zones, based on the potential hazards posed by each task. Site modifications may only be made with the approval of Remtech's Corporate Health and Safety Manager or onsite measurements that confirm that the hazard has dissipated.

For work conducted in the CRZ zones: Level D, Hard Hat, Safety Glasses, Steel Shoes/Chemical Boots, Nitrile Gloves, White Tyvek Optional.

For work inside 50 ft radius of removal of fire debris, pure product transfer or cleanup activities impacting contaminated debris: Level C: Full-face respirator, Dual Purple/Green Cartridges, Yellow Tyvek, Hardhat, Chemical Boots, Nitrile Gloves. Where breathing zone PID reading can be demonstrated to be less than 5 ppm, consult the Safety Manager to determine if PPE can be reduced.

Confined Space Entry – areas defined by tanks, manholes, inside walls with contamination exceeding 4 ft in height – Requires Confined Space Entry Permit.

Fall – Protection – when working on heights over 3 ft high, fall protection is required. Ensure that guardrails are in place on all frac tanks prior to climbing on top. Access on top of the frac tanks is restricted to within the confines of guardrails.

#### VII. DECONTAMINATION PROCEDURES

Personnel and equipment decontamination procedures will be developed and communicated to site personnel. Where possible, areas on obvious contamination will be avoided by workers; using remote handling/sampling equipment; covering or enclosing instrumentation; wearing outer disposable garments; and containing contamination with poly sheeting/containers. In fire situations, tracking offsite must be avoided.

All personnel leaving the Contamination Reduction Zone (CRZ) will perform personnel decontamination procedures. Contaminated disposable clothing will be bagged and containerized and disposed of in accordance with environmental regulations.

The doffing (removal) sequence of contaminated clothing for level D/C in the CRZ will be followed:

- Remove chemical boots or outer boot covers and leave in CRZ.
- Remove tyvek.
- Clean and remove hard hat.
- Remove, wash and rinse respirator.
- Remove gloves.
- Wash hands, face, and neck.

Contaminated articles shall be placed in a decon container such as a plastic bag or drum, labeled, and moved to the drum storage area when full.

The level of personnel protection will be upgraded when potential new, changing, or unknown conditions are encountered.

#### VIII. EMERGENCY RESPONSE PLAN

##### Pre-Emergency Planning

Before starting site operations, the SSO will implement emergency procedures that include: identifying the location and route to emergency medical services; establishing site communications; designating emergency warning signals and evacuation routes; inventorying emergency equipment; and communicating emergency procedures to personnel.

##### Personnel Lines of Authority and Communication

The SSO takes the lead during site emergencies until off-site emergency responders arrive. In cases of major emergencies, Remtech personnel will evacuate the site, contact local emergency personnel to handle the incident. Minor site emergencies that are controllable on-site with emergency equipment located at the site will be addressed by Remtech personnel with the approval of the SSO.

##### Emergency Recognition and Prevention

The SSO will conduct an initial site safety briefing to review the requirements of the site safety plan with site personnel. This briefing will include discussions on the recognition, prevention, and control of emergencies anticipated on-site. Daily safety meetings will be held to emphasize emergency prevention and control measures.

##### Safe Distance and Places of Refuge

The on-site assembly point will be located in the clean zone where site personnel are accounted for and emergency services are contacted. The SSO will evaluate the emergency situation based on the hazards posed to site personnel remaining at the on-site assembly point, then determine the need and location of further off-site evacuation and assembly points.

##### Site Security and Control

(b) (7)(F), (b) (3)

Evacuation Routes and Procedures

(b) (7)(F), (b) (3)

Emergency Decontamination Procedures

Personnel will be decontaminated to the extent feasible (gross decon or deluge shower) but life saving and first aid procedures take priority over personnel decontamination efforts. Standard personnel decontamination procedures apply for those injuries deemed non-life threatening by the SSO.

Emergency Medical Treatment and First Aid

In the absence of reasonable accessible medical services, the SSO trained in first aid by the American Red Cross or the equivalent will be available on-site to render first aid. An industrial first aid kit will be available on site, with its contents approved by Remtech's consulting physician. The contents of the first aid kit will be checked by the SSO weekly, with expendable items replaced when exhausted.

Emergency Actions

If actual or suspected serious injury occurs on-site implement the following emergency actions:

1. Remove the exposed/injured person(s) from immediate danger.
2. Render first aid if necessary. Decontaminate injured after critical first-aid has been administered.
3. Obtain paramedic services or ambulance transport to local hospital. This procedure shall be followed even if there is no visible injury.
4. Other personnel in the work area shall be evacuated and assembled at the clean zone until the SSO determines that is safe to resume work.

Response Follow-Up

The SSO must complete an incident investigation form for site emergencies within 24 hours of the incident and transmit it to the Corporate Safety Officer. Accidents involving lost time, overexposures, or site evacuations must be reported within 24 hours to:

M. D. Ryckman  
 Corporate Safety Officer  
 Phone: 770-427-7766 x 203  
           800-377-3648 x 203  
 Fax: 770-427-7001

The SSO will identify the cause(s) of the incident and take action to prevent reoccurrence. The SSO will also evaluate the effectiveness of the site's emergency response procedures and implement corrective actions as appropriate.

Emergency Equipment On-Site

1. Fire extinguishers in 20 ft. trailer
2. First Aid Kit in decontamination area
3. Eye Wash in decontamination area

IX. WORK PLAN

1. Daily Tailgate Meetings to go over daily work tasks at beginning and end of each day
2. Verify power and mechanical equipment locked out, review hazards and emergency procedures
3. Review safety procedures
4. Verify that Work Zone integrity is maintained

#### X. SITE SAFETY PLAN CERTIFICATION

This site safety plan complies with the appropriate sections of 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response". Only site personnel meeting the training and medical surveillance requirements of 29 CFR 1910.120 are authorized to perform hazardous waste operations or emergency response at this site.

Signature: Mark D. Ryckman



## Remtech Hazard Communication Program

The purpose of hazard communication (Employee Right-to-Know) is to ensure that the hazards of all chemicals located at this field project site are communicated according to 29 CFR 1926.59 to all Remtech personnel. Hazard communication will include the following:

1. Container labeling -- Remtech will ensure that all drums and containers are labeled according to contents. These drums and containers will include those from manufacturers and those produced on site by operations. All incoming and outgoing labels shall be checked for identity, hazard warning, and name and address of the responsible party.
2. MSDSs -- There will be an MSDS located on site for each hazardous chemical known to be or used on site. All MSDSs will be attached to the site safety plan. The site safety plan can be found in the SSO's possession on site.
3. Employee Information and Training -- Training employees on chemical hazards is accomplished by Remtech Engineer's training program. Chemical hazards are communicated to employees through daily safety meetings held at the site and during the initial site orientation meeting.

Remtech's Hazard Communication Program Includes the following:

1. Chemicals and their hazards in the work area
2. How to prevent exposure to these hazardous chemicals
3. What the company has done to prevent workers' exposure to these chemicals
4. Procedures to follow if they are exposed to these chemicals
5. How to read and interpret labels and MSDSs for hazardous substances found on Remtech sites
6. Emergency spill procedures
7. Proper storage and labeling

Before any new hazardous chemical is introduced on site, each employee will be given information in the same manner as during the safety class. The SSO will be responsible for seeing that the MSDS on the new chemical is available. The information pertinent to the chemical hazards will be communicated to project personnel.

Morning safety meetings are held and the hazardous materials used on the site will be discussed. Attendance is mandatory for all employees.

Refer to MSDSs for chemicals specifically brought to this site.

Chemical Hazard Matrix

Chemical	FP, F	Sol, %	TWA, ppm	IP, ev	CF	Ca	Target Organism	Skin, Eye Hazard	Ingestion Hazard	Vapor Inhalation	Odor Warning Properties, ppm
1,1-Dichloroethane	2	6	100	11.06			CNS	yes	yes	yes	255
1,1-Dichloroethene	14	5 to 10 mg/l	5		0.82	yes	CNS	yes	yes	yes	
1,1-Dichloropropane	70	?	ND		NR			yes	yes	yes	
1,1,1-Trichloroethane	>200	INS	350		NR			yes	yes	yes	22.1
1,1,2-Trichloroethane		0.4	10 Skin	11	NR	yes	CNS	yes	yes	yes	
1,2-Dichloroethane			10					yes	yes	yes	11.2
Acetone	0	100	500	9.69	1.1	yes	CNS	yes	yes	yes	4.58
Benzene	12	0.07	1	9.24	0.53	yes	CNS	yes	yes	yes	8.65
bis(2-Ethylhexyl) phthalate			5 mg/cm								
Carbon Dioxide			5000								74,000
Carbon tetrachloride	NA	0.05	10	11.47	NR	yes	CNS	yes	yes	yes	40.7
Chloroethane								yes	yes	yes	
Chloroform	NA	0.5	50 C	11.42	NR	yes	CNS	yes	yes	yes	11.7
Cis-1,2-Dichloroethene								yes	yes	yes	
Cumene	96	INS	50	8.75	0.54		CNS	yes	yes	yes	0.024
Cyclohexane	0	INS	300	9.88	0.8		CNS	yes	yes	yes	83.8
Dichlorodifluoromethane	NA	0.03	1000	11.75			Temor	yes	yes	yes	
Diesel Fuel #2			11		0.9						
Ethanol DSA	55	100	1000	10.47	10		CNS	yes	yes	yes	
Ethylbenzene	55	0.01	100	8.76	0.52		CNS	yes	yes	yes	12
Glycol ethers								yes	yes	yes	0.708
Heptane	25	0.0003	500	9.9	2.8		CNS	yes	yes	yes	9.77
Hexachlorobutadiene	?	INS	0.02 NIOSH	?		yes	Kidney Damage	yes	yes	yes	
Isophorone	184	1	25	9.07			CNS	yes	yes	yes	0.631
Isopropyl Alcohol	53	> 100 mg/l	200		6			yes	yes	yes	0.44
Kerosene	100 to 162	INS	100 mg/cm NIOSH	?	1		CNS	yes	yes	yes	
LVP 100								yes	yes	yes	

## Chemical Hazard Matrix

Chemical	FP, F	Sol, %	TWA, ppm	IP, ev	CF	Ca	Target Organism	Skin, Eye Hazard	Ingestion Hazard	Vapor Inhalation	Odor Warning Properties, ppm
Methanol	52	100 mg/l	200 Skin		NR			yes	yes	yes	141
Methyl ethyl ketone			200		0.9			yes	yes	yes	0.27
Methylacetate	14	25	200	10.27	6.6		CNS	yes	yes	yes	
Methylene chloride	?	2	25	11.32	NR	yes	CNS	yes	yes	yes	0.912
Naphthalene	174	0.003	10	8.12	0.42		CNS	yes	yes	yes	0.015
Neutral Oil 100, distillates petroleum								yes	yes	yes	
Nitrogen, compressed								yes	yes	yes	
p-Dichlorobenzene	150	0.008	75	8.98	0.47	yes	Kidney, Liver	yes	yes	yes	0.048
Perchloroethylene, Tetrachloroethylene	NA	0.02	100	9.32	0.57	yes	CNS	yes	yes	yes	6.17
Styrene	88	0.03	100/20	8.4	0.4		CNS	yes	yes	yes	3.44
Sulfuric acid	NA	100	1 mg/cm	?				yes	yes	yes	
Tetrachloroethane, N.O.S.	NA	0.3	5	11.1	NR	yes	CNS	yes	yes	yes	
Tetrachloroethene								yes	yes	yes	
Toluene	40	0.07	200	8.82	0.5		CNS	yes	yes	yes	0.16
Trichloroethylene, Trichloroethene		0.1	100	9.45	0.62	yes	CNS	yes	yes	yes	1.36
Trichlorofluoromethane								yes	yes	yes	16.3
Vinyl chloride		0.1	5	9.99	2	yes	CNS	yes	yes	yes	0.253
VM&P Naptha	20 to 55	INS	350 mg/cm NIOSH	?	0.97		CNS	yes	yes	yes	
Xylenes			100		0.4			yes	yes	yes	0.5

# CAMEO Chemicals

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# 1,1-DICHLOROETHANE



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### Chemical Identifiers

[What is this information?](#)

CAS Number	UN/NA Number	DOT Hazard Label	CHRIS Code
75-34-3	<a href="#">2362</a>	Flammable Liquid	<a href="#">DCH</a>

### NFPA 704

Diamond	Hazard	Value	Description
<b>3</b> <b>1 0</b>	Health	1	Can cause significant irritation.
	Flammability	3	Can be ignited under almost all ambient temperature conditions.
	Instability	0	Normally stable, even under fire conditions.
	Special		

(NFPA, 2010)

### General Description

A colorless liquid with an ether-like odor. Slightly soluble in water and slightly denser than water. Flash point below 70°F. Vapors denser than air. Used to make other chemicals.

### Hazards

[What is this information?](#)

### Reactivity Alerts

Highly Flammable

### Air & Water Reactions

Highly flammable. Slightly soluble in water.

### Fire Hazard

Special Hazards of Combustion Products: When heated to decomposition emits highly toxic fumes to phosgene.

Behavior in Fire: Explosion hazard (USCG, 1999)

**Health Hazard**

INHALATION: Irritation of respiratory tract. Salivation, sneezing, coughing, dizziness, nausea, and vomiting. EYES: Irritation, lacrimation, and reddening of conjunctiva. SKIN: Irritation. Prolonged or repeated skin contact can produce a slight burn. INGESTION: Ingestion incidental to industrial handling is not considered to be a problem. Swallowing of substantial amounts could cause nausea, vomiting, faintness, drowsiness, cyanosis, and circulatory failure. (USCG, 1999)

**Reactivity Profile**

1,1-DICHLOROETHANE can react vigorously with oxidizing materials. It is incompatible with strong bases. Contact with strong caustics will cause formation of flammable and toxic gas. It will attack some forms of plastics, rubber and coatings. (NTP, 1992)

**Belongs to the Following Reactive Group(s)**

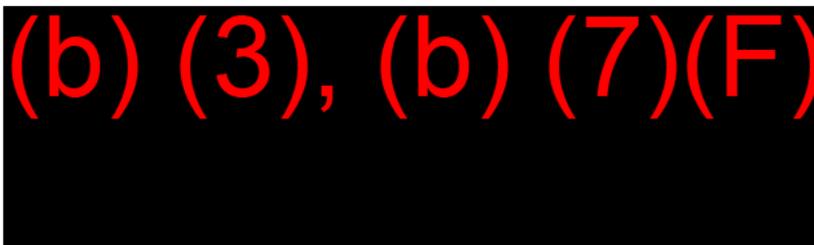
- [Halogenated Organic Compounds](#)

**Potentially Incompatible Absorbents**

No information available.

<b>Response Recommendations</b>
---------------------------------

[What is this information?](#) ▶

**Firefighting**

Excerpt from [GUIDE 130](#) [Flammable Liquids (Non-Polar / Water-Immiscible / Noxious)]:

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

SMALL FIRE: Dry chemical, CO<sub>2</sub>, water spray or regular foam.

LARGE FIRE: Water spray, fog or regular foam. Do not use straight streams. Move containers from fire area if you can do it without risk.

FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. (ERG, 2012)

**Non-Fire Response**

Excerpt from [GUIDE 130](#) [Flammable Liquids (Non-Polar / Water-Immiscible / Noxious)]:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers,

basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

**LARGE SPILL:** Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor; but may not prevent ignition in closed spaces. (ERG, 2012)

#### **Protective Clothing**

**Skin:** Wear appropriate personal protective clothing to prevent skin contact.

**Eyes:** Wear appropriate eye protection to prevent eye contact.

**Wash skin:** The worker should immediately wash the skin when it becomes contaminated.

**Remove:** Work clothing that becomes wet should be immediately removed due to its flammability hazard (i.e. for liquids with flash point < 100°F)

**Change:** No recommendation is made specifying the need for the worker to change clothing after the work shift. (NIOSH, 2003)

#### **DuPont Tychem® Suit Fabrics**

No information available.

#### **First Aid**

**EYES:** First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

**SKIN:** IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. If symptoms such as redness or irritation develop, IMMEDIATELY call a physician and be prepared to transport the victim to a hospital for treatment.

**INHALATION:** IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Protective Clothing.

**INGESTION:** DO NOT INDUCE VOMITING. Volatile chemicals have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital. (NTP, 1992)

#### **Physical Properties**

[What is this information?](#) ▶

**Chemical Formula:** C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub>

**Flash Point:** 22 ° F (NTP, 1992)

**Lower Explosive Limit (LEL):** 5.6 % (NTP, 1992)

**Upper Explosive Limit (UEL):** 11.4 % (NTP, 1992)

**Autoignition Temperature:** 856 ° F (USCG, 1999)  
**Melting Point:** -143 ° F (NTP, 1992)  
**Vapor Pressure:** 234 mm Hg at 77.0 ° F ; 182 mm Hg at 68° F (NTP, 1992)  
**Vapor Density (Relative to Air):** 3.44 (NTP, 1992)  
**Specific Gravity:** 1.174 at 68.0 ° F (USCG, 1999)  
**Boiling Point:** 135.1 ° F at 760.0 mm Hg (NTP, 1992)  
**Molecular Weight:** 98.96 (NTP, 1992)  
**Water Solubility:** less than 1 mg/mL at 68° F (NTP, 1992)  
**IDLH:** 3000 ppm (NIOSH, 2003)

**AEGLs (Acute Exposure Guideline Levels)**

No AEGL information available.

**ERPGs (Emergency Response Planning Guidelines)**

No ERPG information available.

**PACs (Protective Action Criteria)**

Chemical	PAC-1	PAC-2	PAC-3	
Ethylidene chloride, 1,1-; (1,1-Dichloroethane) (75-34-3)	160 ppm	160 ppm	4000 ppm	LEL = 54000 ppm

(SCAPA, 2012)

**Regulatory Information**

[What is this information?](#) ▶

Regulatory Name	CAS Number/ 313 Category Code	EPCRA 302 EHS TPQ	EPCRA 304 EHS RQ	CERCLA RQ	EPCRA 313 TRI	RCRA Code	CAA 112(r) RMP TQ
1,1-Dichloroethane	75-34-3			1000	X	U076	
Ethylidene Dichloride	75-34-3			1000	313	U076	

"X" indicates that this is a second name for an EPCRA section 313 chemical already included on this consolidated list. May also indicate that the same chemical with the same CAS number appears on another list with a different chemical name.

(EPA List of Lists, 2012)

**Alternate Chemical Names**

[What is this information?](#) ▶

- ASYMMETRICAL DICHLOROETHANE
- CHLORINATED HYDROCHLORIC ETHER
- 1,1-DICHLOROETHANE
- DICHLOROETHANE, 1,1-

- 1,1-DICHLOROETHANE
- DICHLOROMETHYLMETHANE
- 1,1-ETHYLENE DICHLORIDE
- ETHYLIDENE CHLORIDE
- ETHYLIDENE DICHLORIDE
- 1,1-ETHYLIDENE DICHLORIDE
- HCC 150A
- NCI-C04535

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## VINYLIDENE CHLORIDE, INHIBITED

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**Chemical Identifiers**

[What is this information?](#)

CAS Number	UN/NA Number	DOT Hazard Label	CHRIS Code
75-35-4	<a href="#">1303</a>	Flammable Liquid	VCI

**NFPA 704**

Diamond	Hazard	Value	Description
4 4 2	Health	4	Can be lethal.
	Flammability	4	Burns readily. Rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature.
	Instability	2	Readily undergoes violent chemical changes at elevated temperatures and pressures.
	Special		

(NFPA, 2010)

**General Description**

A clear colorless liquid with a chloroform-like odor. Flash point 0°F. Boiling point 99°F. Denser (at 10.1 lb / gal) than water and insoluble in water. Hence sinks in water. May polymerize exothermically if heated or contaminated. If the polymerization takes place inside a container, the container may rupture violently. Vapors heavier than air.

**Hazards**

[What is this information?](#)

**Reactivity Alerts**

- Highly Flammable
- Polymerizable
- Peroxidizable Compound

**Air & Water Reactions**

Highly flammable. Insoluble in water.

**Fire Hazard**

Special Hazards of Combustion Products: Toxic hydrogen chloride and phosgene are generated in fires.

Behavior in Fire: May explode in fire due to polymerization. Vapor is heavier than air and may travel considerable distance to a source of ignition and flash back. (USCG, 1999)

**Health Hazard**

Vapor can cause dizziness and drunkenness; high levels cause anesthesia. Liquid irritates eyes and skin. (USCG, 1999)

**Reactivity Profile**

Peroxidizable monomer, such as VINYLIDENE CHLORIDE, may initiate exothermic polymerization of the bulk.

FRP

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material [Bretherick 1979, p. 160, 187]. Mixing vinylidene chloride in equal molar portions in a closed container with any of the following substances caused the temperature and pressure to increase: chlorosulfonic acid, nitric acid, or oleum [NFPA 1991]. Its reaction products with ozone are particularly dangerous [Dow Chemical, 1968]. This may extend to other powerful oxidants, as various peroxides are produced.

**Belongs to the Following Reactive Group(s)**

- [Halogenated Organic Compounds](#)
- [Hydrocarbons, Aliphatic Unsaturated](#)
- [Polymerizable Compounds](#)

**Potentially Incompatible Absorbents**

Use caution: Liquids with this reactive group classification have been known to react with the absorbents listed below. [More info about absorbents, including situations to watch out for...](#)

- Mineral-Based & Clay-Based Absorbents
- Dirt/Earth

**Response Recommendations**

[What is this information?](#) ▶

**Isolation and Evacuation**

(b) (7)(F), (b) (3)

**Non-Fire Response**

Excerpt from [GUIDE 130P](#) [Flammable Liquids (Non-Polar / Water-Immiscible / Noxious)]:

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.

LARGE SPILL: Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor; but may not prevent ignition in closed spaces. (ERG, 2012)

**Protective Clothing**

Skin: Wear appropriate personal protective clothing to prevent skin contact.

Eyes: Wear appropriate eye protection to prevent eye contact.

Wash skin: The worker should immediately wash the skin when it becomes contaminated.

Remove: Work clothing that becomes wet should be immediately removed due to its flammability hazard (i.e. for liquids with flash point < 100°F)

Change: No recommendation is made specifying the need for the worker to change clothing after the work shift.

Provide: Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection. Facilities for quickly drenching the body should be provided within the immediate work area for emergency use where there is a possibility of exposure. [Note: It is intended that these facilities provide a sufficient quantity or flow of water to quickly remove the substance from any body areas likely to be exposed. The actual determination of what constitutes an adequate quick drench facility depends on the specific circumstances. In certain instances, a deluge shower should be readily available, whereas in others, the availability of water from a sink or hose could be considered adequate.] (NIOSH, 2003)

#### DuPont Tychem® Suit Fabrics

[Fabric legend and testing details](#) ▶

Normalized Breakthrough Times (in Minutes)

Chemical	CAS Number	State	QC	SL	TF	TP	C3	BR	LV	RC	TK	RF
Vinylidene chloride	75-35-4	Liquid			>480	>480	170	>480	>480	>480	>480	>480

> indicates greater than.

A blank cell indicates the fabric has not been tested. The fabric may or may not offer barrier.

#### Special Warnings from DuPont

- Serged and bound seams are degraded by some hazardous liquid chemicals, such as strong acids, and should not be worn when these chemicals are present.
- CAUTION: This information is based upon technical data that DuPont believes to be reliable. It is subject to revision as additional knowledge and experience are gained. DuPont makes no guarantee of results and assumes no obligation or liability...

[More Info...](#) ▶

(DuPont, 2013)

#### First Aid

**EYES:** First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

**SKIN:** IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. IMMEDIATELY call a hospital or poison control center even if no symptoms (such as redness or irritation) develop. IMMEDIATELY transport the victim to a hospital for treatment after washing the affected areas.

**INHALATION:** IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. IMMEDIATELY call a physician and be prepared to transport the victim to a hospital even if no symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to that advised under Protective Clothing.

**INGESTION:** DO NOT INDUCE VOMITING. Volatile chemicals have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital. If the victim is convulsing or unconscious, do not give anything by mouth, ensure that the victim's airway is open and lay the victim on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the victim to a hospital.

**OTHER:** Since this chemical is a known or suspected carcinogen you should contact a physician for advice regarding the possible long term health effects and potential recommendation for medical monitoring. Recommendations from the physician will depend upon the specific compound, its chemical, physical and toxicity properties, the exposure level, length of exposure, and the route of exposure. (NTP, 1992)

#### Physical Properties

[What is this information?](#) ▶

**Chemical Formula:** C<sub>2</sub>H<sub>2</sub>Cl<sub>2</sub>

**Flash Point:** 14 ° F (NTP, 1992)

**Lower Explosive Limit (LEL):** 7.3 % (NTP, 1992)

**Upper Explosive Limit (UEL):** 16 % (NTP, 1992)

**Autoignition Temperature:** 1058 ° F (USCG, 1999)  
**Melting Point:** -188.5 ° F (NTP, 1992)  
**Vapor Pressure:** 500 mm Hg at 68.0 ° F ; 591 mm Hg at 77° F (NTP, 1992)  
**Vapor Density (Relative to Air):** 3.25 (NTP, 1992)  
**Specific Gravity:** 1.21 at 68.0 ° F (USCG, 1999)  
**Boiling Point:** 89.1 ° F at 760.0 mm Hg (NTP, 1992)  
**Molecular Weight:** 96.94 (NTP, 1992)  
**Water Solubility:** 5 to 10 mg/mL at 70° F (NTP, 1992)  
**IDLH:** ; A potential human carcinogen. (NIOSH, 2003)

#### AEGLs (Acute Exposure Guideline Levels)

No AEGL information available.

#### ERPGs (Emergency Response Planning Guidelines)

Chemical	ERPG-1	ERPG-2	ERPG-3
Vinylidene Chloride (75-35-4)	ID	500 ppm	1000 ppm

ID = Insufficient data.  
(AIHA, 2013)

#### PACs (Protective Action Criteria)

Chemical	PAC-1	PAC-2	PAC-3	
Vinylidene chloride; (1,1-Dichloroethylene) (75-35-4)	45 ppm	500 ppm	1000 ppm	LEL = 65000 ppm

(SCAPA, 2012)

#### Regulatory Information

[What is this information?](#) ►

Regulatory Name	CAS Number/ 313 Category Code	EPCRA 302 EHS TPQ	EPCRA 304 EHS RQ	CERCLA RQ	EPCRA 313 TRI	RCRA Code	CAA 112(r) RMP TQ
1,1-Dichloroethylene	75-35-4			100	X	U078	10000
Ethene, 1,1-dichloro-	75-35-4			100	X	U078	10000
Vinylidene chloride	75-35-4			100	313	U078	10000

"X" indicates that this is a second name for an EPCRA section 313 chemical already included on this consolidated list. May also indicate that the same chemical with the same CAS number appears on another list with a different chemical name.

(EPA List of Lists, 2012)

#### Alternate Chemical Names

[What is this information?](#) ►

- ASYM-DICHLOROETHYLENE
- 1,1-DCE
- 1, 1-DICHLOROETHENE {VINYLIDENE CHLORIDE}
- 1,1-DICHLOROETHENE
- 1,1-DICHLOROETHYLENE
- DIOFAN A 5655
- ETHENE, 1,1-DICHLORO-
- ETHYLENE, 1,1-DICHLORO-
- F 1130A
- HCC 1130A

- ISO-DICHLOROETHYLENE
- NCI-C54262
- R 1130A
- SARAN
- SCONATEX
- UNSYM-DICHLOROETHYLENE
- VDC
- VINYLIDENE CHLORIDE
- VINYLIDENE CHLORIDE MONOMER
- VINYLIDENE CHLORIDE(II)
- VINYLIDENE CHLORIDE, INHIBITED
- VINYLIDENE CHLORIDE, [INHIBITED]
- VINYLIDENE DICHLORIDE

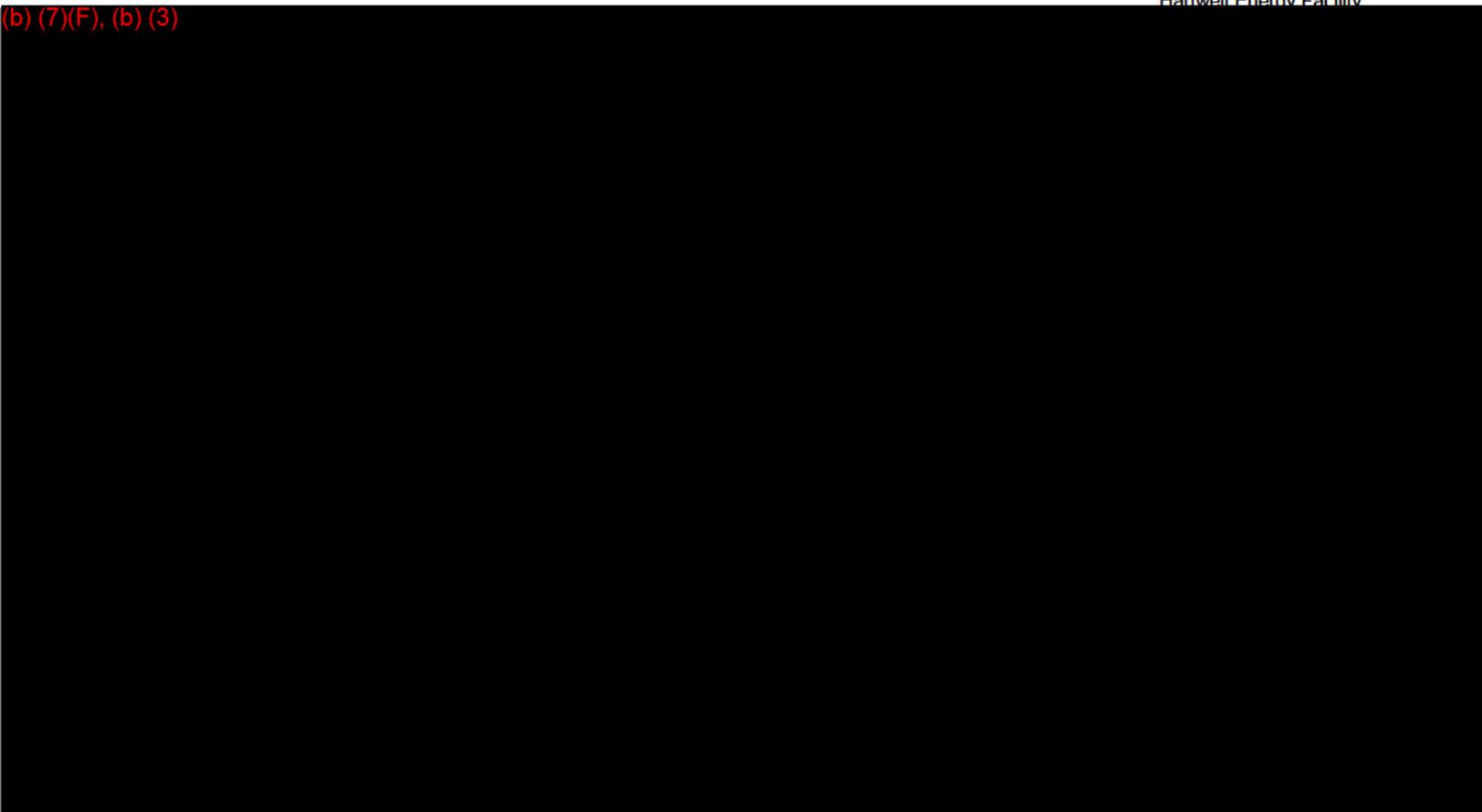
CAMEO Chemicals version 2.4.1

Other MSDS Sheets not included. MSDS sheets are project specific

Hartwell Energy Facility

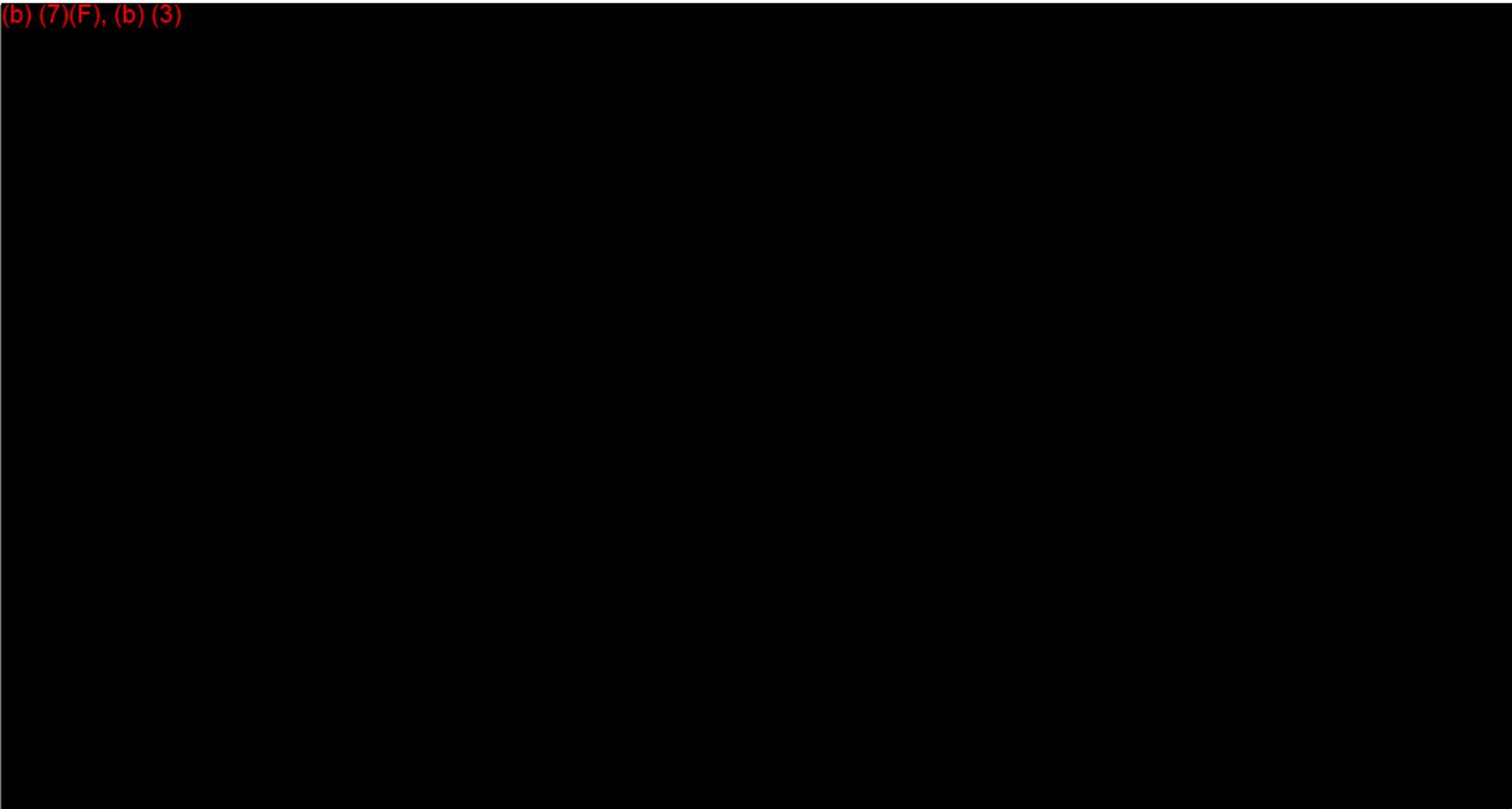
**Appendix B – Facility Diagrams****Figure 1 – Site Location Map****Figure 2 – Site Topographic Map****Figure 3 – Site Plan****Figure 4 – Site Drainage Plan****Figure 5 – Site Evacuation Plan****Figure 6 – Receiving Pipeline Diagram****Figure 7a – Map of Sensitive Areas (5 mile radius of Facility)****Figure 7b – Map of Sensitive Areas (1 mile radius of Facility)**

(b) (7)(F), (b) (3)



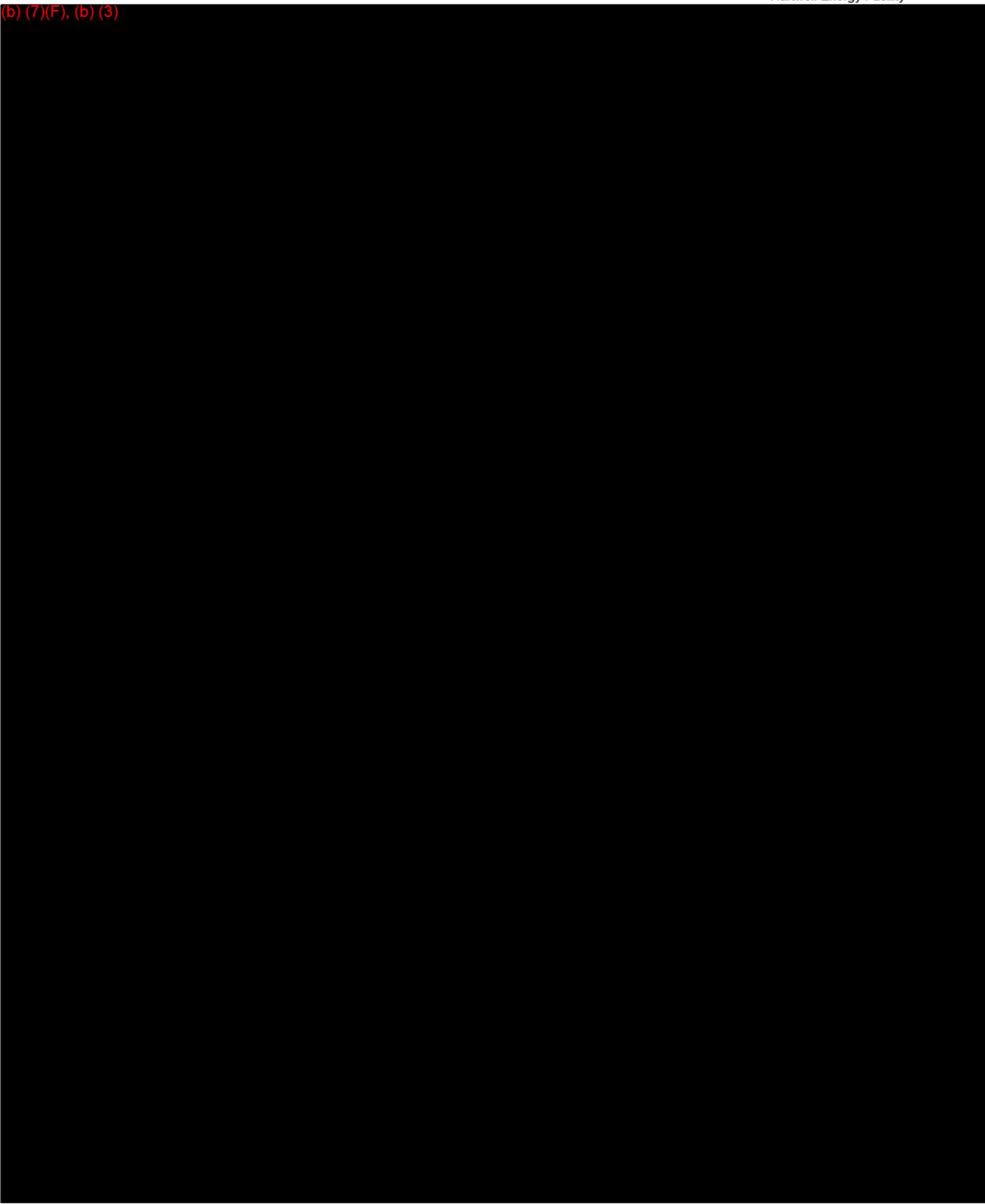
<p>HARTWELL ENERGY FACILITY 415 SMITH-McGEE HIGHWAY HARTWELL, GA PREPARED FOR OGLETHORPE POWER CORPORATION</p>	<p>SITE LOCATION MAP</p>	<p>SHEET: FIG. 1</p>
	<p><b>URS</b> URS Corporation 400 Northpark Tower Center 1000 Abernathy Road N.E., Suite 900 Atlanta, Georgia 30328 Tel: 8778 908-8800, Fax: 8778 908-8400</p>	<p>PROJECT NO.</p>
		<p>SCALE: 1" = 2000'</p>
		<p>DATE: 11-06-2009</p>

(b) (7)(F), (b) (3)

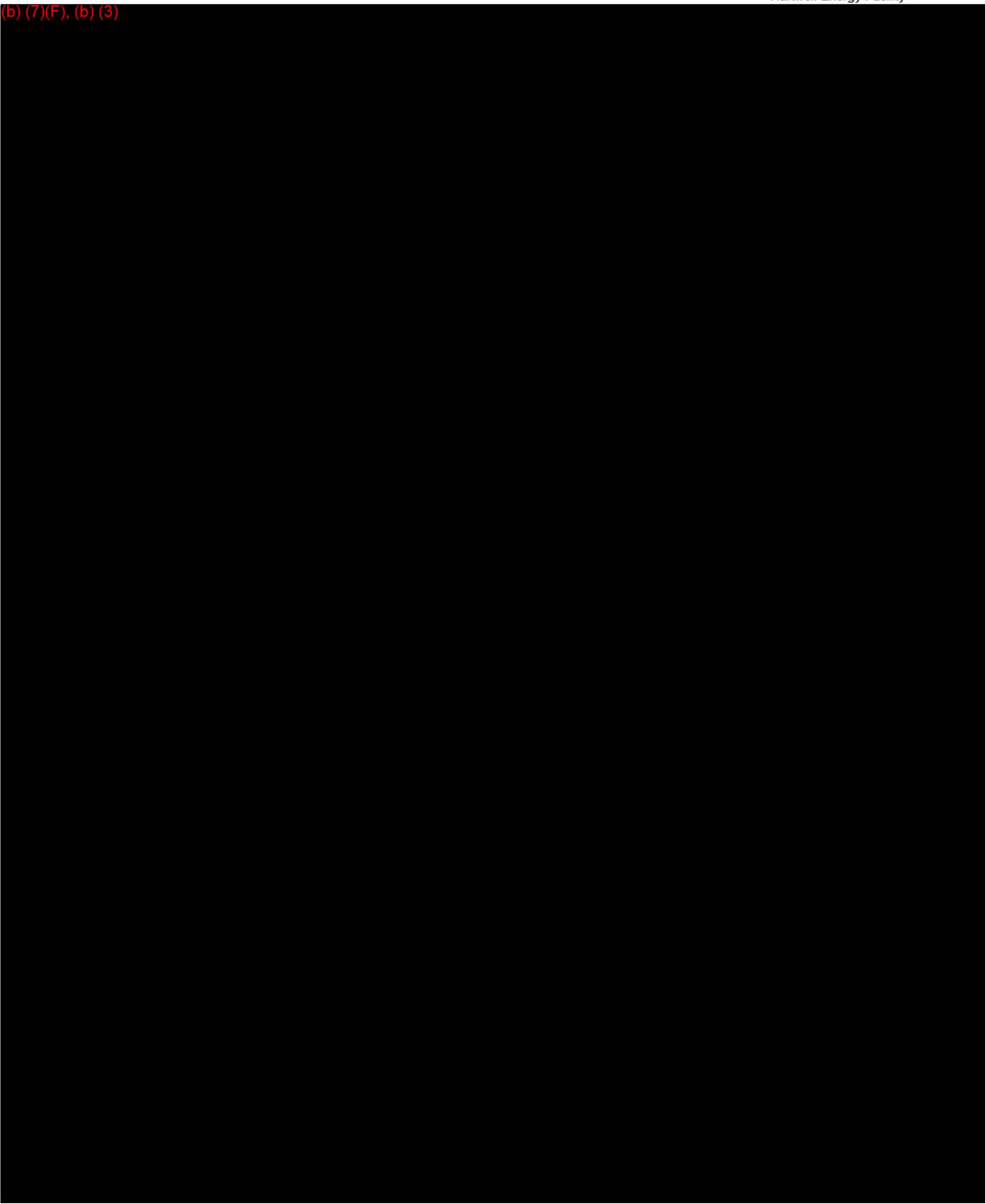


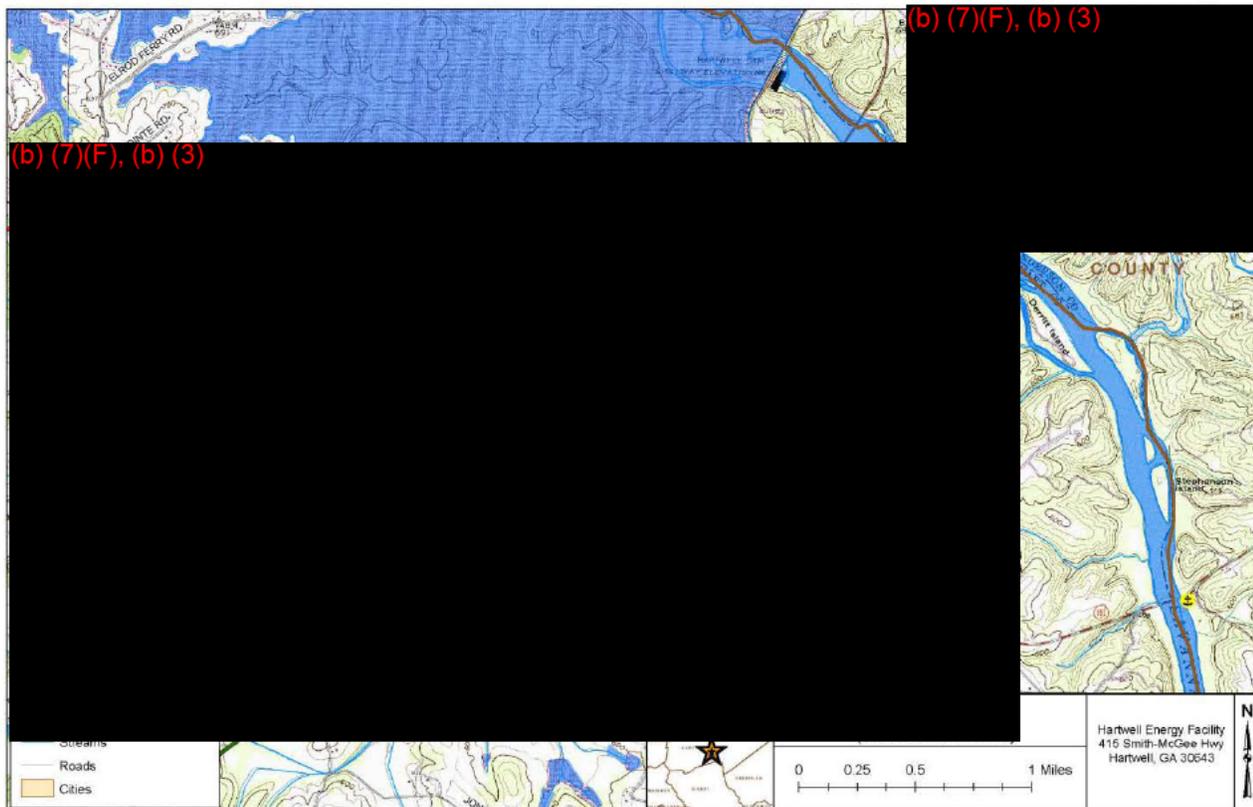
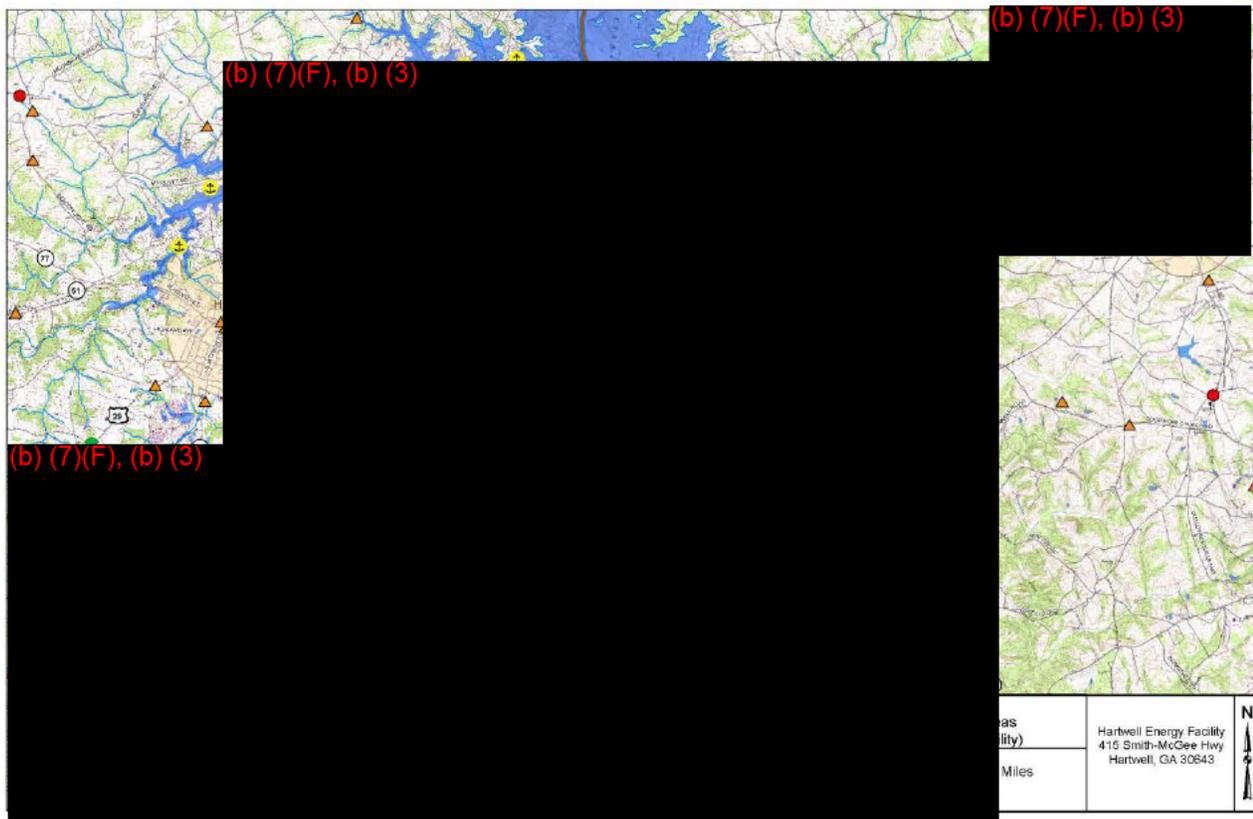
HARTWELL ENERGY FACILITY 415 SMITH-McGEE HIGHWAY HARTWELL, GA PREPARED FOR OGLETHORPE POWER	SITE TOPOGRAPHIC MAP	SHEET: FIG. 2
	 URS Corporation 400 Northpark Town Center 1000 Abernathy Road N.E., Suite 900 Atlanta, Georgia 30328 Tel: 877-8 808-8800, Fax: 877-8 808-8400	PROJECT NO.
		SCALE: 1" = 2000'
		DATE: 11-06-2009

(b) (7)(F), (b) (3)



(b) (7)(F), (b) (3)





# **HARTWELL ENERGY FACILITY RESPONSE PLAN**

## **APPENDIX E**

Emergency Notification Contact List  
Wildlife Agencies

### Emergency Notification Phone List

ORGANIZATION	CONTACT	PHONE NUMBER
Hartwell Energy Qualified Individual (Primary)	Mike McCollum	(O) 706-376-7010 (H) (b) (6) (C) [REDACTED]
Hartwell Energy Qualified Individual (Alternate)	Kenn Pittman	(O) 706-376-7010 (H) (b) (6) (C) [REDACTED]
Phillips Recoveries, Inc. (Primary Response Contractor)	Michael Phillips	800-947-6805 (H) (b) (6) (C) [REDACTED]
Remtech Engineers	Mark Ryckman	800-377-3648 x 203 or 770-427-7766 x 203
Plantation Pipe Line Company		(800) 510-5678
Colonial Pipeline Company		(800) 926-2728
Williams Gas Pipeline - Transco		(800) 440-8475
OPC Vice President of Environmental Affairs	Doug Fulle	(O) 770-270-7166 (H) (b) (6) (C) [REDACTED]
Weather Report	NOAA	770-632-1837
Hospital	Hart County Hospital	706-376-3921 or 911
Fire	Hart County Fire Department	706-376-8515 or 911
Fire / Hazmat	City of Hartwell Fire Dept	706-856-3228 or 706-856-3209
Medical/Ambulance		706-365-3421 or 911
CHEMTREC		1-800-424-9300
Federal On-Scene Coordinator (OSC):	EPA Region IV (24-hour Spill Line)	404-562-8700
Georgia Environmental Protection Div. Emergency Response Team**	24-hour Dispatch (in state)	800-241-4113 404-656-4300
<b>National Response Center</b>		<b>800-424-8802</b> <b>202-267-2675</b>
U.S. EPA, Region IV		404-562-8700
US DOT PHMSA OPS		202-366-4433
U.S. Coast Guard – Savannah		912-652-4181
City of Elberton Georgia	Water Withdrawal	706-283-5321
City of Hartwell, Georgia	Water Withdrawal	706-856-3211
City of Abbeville, South Carolina	Water Withdrawal	Normal 864-366-5058 Emergency 864-366-5677
US Army Corps of Engineers	Hartwell Dam & Lake Discharge	706-856-0300 or 888-893-0678
US Army Corps of Engineers	Russell Dam & Lake Discharge	706-213-3400 or 800-944-7207

<b>Wildlife Care-Government Agencies and Private Organizations</b>
<b>Government Agencies:</b>
<u>U.S. Fish &amp; Wildlife Service - Southeast Regional Office</u> Century Center, 1875 Century Boulevard Atlanta, GA 30345 Phone: 404/679-4000, Fax: 404/679-4006 Website: <a href="http://southeast.fws.gov">http://southeast.fws.gov</a>
<u>North Georgia Office (Athens) - Georgia Ecological Services</u> West Park Center, Suite D, 105 West Park Drive, Athens, GA 30606 Phone: 706 613-9493, Fax: 706 613-6059 Website: <a href="http://www.fws.gov/athens/">http://www.fws.gov/athens/</a>
<u>Wildlife Resources Division - Nongame &amp; Endangered Wildlife Program</u> 116 Rum Creek Drive, Forsyth, GA 31029 Phone: (478) 994-1438 Website: <a href="http://georgiawildlife.dnr.state.ga.us/content/displaynavigation.asp?TopCategory=5">http://georgiawildlife.dnr.state.ga.us/content/displaynavigation.asp?TopCategory=5</a>
National Oceanographic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), Southeast Regional Office (SERO) Location: 9721 Executive Center Drive North, St. Petersburg, FL 33702, Phone:(727) 570-5333 Website: <a href="http://caldera.sero.nmfs.gov/">http://caldera.sero.nmfs.gov/</a>
<b>Private Organizations:</b>
<u>Bird Emergency Aid and Kare Sanctuary (BEAKS)</u> Location: 12084 Houston Avenue, Big Talbot Island, Florida 32226 Phone: (904) 251-BIRD-(2473) / (FAX) 904-251-3378
<u>Georgia Wildlife Federation</u> 11600 Hazelbrand Road, Covington, GA 30014 Phone: 770-787-7887, Fax: 770-787-9229, Website: <a href="mailto:webmaster@gwf.org">webmaster@gwf.org</a>
<u>Atlanta Audubon Society</u> P.O. Box 29189, Atlanta, GA 30359 Phone: 770-913-0511, Contact Person: Georgann Schmalz Website: <a href="http://www.atlantaaudubon.org/">http://www.atlantaaudubon.org/</a>
<u>St. Francis Wildlife</u> Location: P.O. Box 38160, Tallahassee, Florida 32315 Phone: (850) 386-6296 Website: <a href="http://www.stfranciswildlife.org/">http://www.stfranciswildlife.org/</a>
<u>International Bird Rescue Research Center (IBRRC)</u> Location: 4369 Cordelia Road, Suisun City, CA 94585 Phone: (707)-207-0380 Website: <a href="http://www.ibrrc.org/">http://www.ibrrc.org/</a>
<u>TriState Bird Rescue &amp; Research, Inc.</u> Location: 110 Possum Hollow Road, Newark, DE 19711 Phone: 888-607-3072 or 302-737-7241 Daytime hours, or 888-441-0702 Nighttime hours Or 302-737-9543 – Dr. Stout or Eileen Gilbert Pager: 800-710-0695 or 800-710-696 Fax: 302-737-9562 Website: <a href="http://www.tristatebird.org/">http://www.tristatebird.org/</a>

# **HARTWELL ENERGY FACILITY RESPONSE PLAN**

## **APPENDIX F**

Prevention Training Logs



<b>QUALIFIED INDIVIDUAL DRILL LOG</b>	
Date:	
Company:	
Qualified Individual:	
Emergency Scenario:	
Local Response Team's Response Time:	
Contracted Personnel's Response Time:	
Facility Personnel Response Time:	
Evaluation:	
Changes to be Implemented:	
Time Table for Implementation:	



