

# **Spill Prevention Control and Countermeasures Plan**

For

## **The University of Rhode Island**

◆ **Kingston Campus**

◆ **Narragansett Bay Campus**

◆ **W. Alton Jones Campus - West Greenwich**



**Prepared by:**  
Triumvirate Environmental, Inc.  
61 Inner Belt Road  
Somerville, MA 02143  
June 2010

**UNIVERSITY OF RHODE ISLAND  
 SPILL PREVENTION CONTROL AND COUNTERMEASURES  
 (40 CFR Part 112)**

**TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE</u></b>
<b>1.0 INTRODUCTION AND PLAN CERTIFICATION</b>	<b>2</b>
1.1 Introduction .....	2
1.2 Professional Engineer's Certification (§112.3(d)) .....	4
1.3 Plan Review and Amendments (§112.4, 112.5(a) (b)(c)) .....	5
1.3.1 Oil SPCC Plan Amendments Required by the U.S. EPA .....	5
1.3.2 Oil SPCC Plan Amendments Required in the Event of a Material Change .....	5
1.3.3 Oil SPCC Plan Review & Evaluation .....	5
1.4 Conformance with Regulatory Requirements (§112.7(a)(1)) .....	6
1.5 Management Approval .....	6
<b>2.0 GENERAL SITE INFORMATION (§112.7(a)(3))</b>	<b>7</b>
<b>3.0 SPCC PLAN OVERVIEW (§112.7(a)(3))</b>	<b>8</b>
3.1 Facility Description .....	8
3.2 Oil Storage .....	9
3.3 University of Rhode Island Policies on Oil Storage, Spill Prevention, and Spill Containment (§112.7(a)(3)(i-v)) .....	12
3.3.1 Container and Drum Storage .....	12
3.3.2 Aboveground Tanks & Containers .....	13
3.3.3 Underground Tanks .....	14
3.3.4 Hydraulic Equipment .....	15
<b>4.0 POTENTIAL SPILLS - PREDICTION AND CONTROL (§ 112.7(b) &amp; (c))</b>	<b>15</b>
<b>5.0 CAMPUS DRAINAGE (§ 112.8(b))</b>	<b>15</b>
5.1 Drainage Systems .....	15
<b>6.0 BULK STORAGE TANKS/CONTAINERS (§ 112.8(c))</b>	<b>16</b>
6.1 Tank Materials and Construction (§ 112.8(c)(1)) .....	17
6.2 Secondary Containment (§ 112.8(c)(2)) .....	17
6.3 Buried or Partially Buried Metallic Tanks (§112.8(c)(4)&(5)) .....	17
6.4 Aboveground Storage Tank Integrity Testing Schedule (§112.8(c)(6)) .....	17
6.5 Container Installations – Good Engineering Practices (§112.8(c)(8)) .....	18
6.6 Facility Wastewater Discharges (§ 112.8(c)(9)) .....	18
6.7 Visible Oil Leaks and Mobile Oil Storage Tanks (§112.8(c)(10)&(11)) .....	19
<b>7.0 TRANSFER OPERATIONS, PUMPING AND IN-PLANT PROCESSES (§112.8(d))</b>	<b>19</b>
7.1 Buried Piping (§ 112.8(d)(1)) .....	19
7.2 Out-of-Service Pipelines (§112.8(d)(2) & 112.7(g)(4)) .....	19
7.3 Pipe Supports and Aboveground Pipelines and Valves (§112.8(d)(3) and (4)) .....	20
<b>8.0 TANK TRUCK LOADING AND UNLOADING (§112.8(d))</b>	<b>20</b>
8.1 Department of Transportation Regulations .....	20

<b>9.0</b>	<b>INSPECTIONS AND RECORDS (§112.7(e))</b>	<b>20</b>
<b>10.0</b>	<b>SECURITY (§112.7(g))</b>	<b>21</b>
10.1	Fencing and Gates (§112.7(g)(1)).....	21
10.2	Flow Valves, Starter Controls, and Pipeline Loading/Unloading Connections (§112.7(g)(2)&(3)) .....	21
10.3	Facility Lighting (§112.7(g)(5)).....	21
<b>11.0</b>	<b>PERSONNEL TRAINING AND SPILL PREV. PROCEDURES (§112.7(f))</b>	<b>.....22</b>
<b>12.0</b>	<b>SPILL RESPONSE/NOTIFICATION PROCEDURES (§112.7(a)(4))</b>	<b>.....22</b>
12.1	Immediate Response/Notification.....	22
12.2	Facility/ Security Responsibility.....	23
12.3	Contact List (§112.7(a)(3)(vi)) .....	24
12.4	Reporting Requirements: U.S. EPA - Significant or Multiple Releases to Surface Water (§112.4) .....	27
12.5	Rhode Island DEM Release Reporting Requirements (Section 46-12.7).....	28

**List of Appendixes**

- Appendix A. Facility Site and Tank Drawings
- Appendix B. Oil Storage Inventory, Spill Prediction and Impacts Assessment
- Appendix C. Oil Tank Integrity Testing and Replacement Schedule
- Appendix D. Inspection Checklist
- Appendix E. Fuel Delivery Procedure
- Appendix F. Rhode Island Oil Pollution Control Regulations
- Appendix G. Determination of Substantial Harm

**Appendix A - List of Figures**

- Figure 1. Site Plan Kingston Campus
- Figure 2. Site Plan Narragansett Bay Campus
- Figure 3. Site Plan W. Alton Jones Campus
- Figure 4. Steam Plant Tanks (Kingston, 3 x 29,600 gal. No.2 fuel tank)
- Figure 5. White Hall (Kingston, 6,000 gal. No. 2 fuel tank)
- Figure 6. Main Office (W. Alton Jones, 1000 gal. gasoline tank)
- Figure 7. 275-350 gal. Single wall tank
- Figure 8. 275 gal. Double wall, Roth tank
- Figure 9. 375 to 1,000 gal. Double wall vertical tank
- Figure 10. Generator Base tanks
- Figure 11. Elevator Hydraulic Oil Reservoir

---

## 1.0 INTRODUCTION AND PLAN CERTIFICATION

### 1.1 Introduction

As required by the Clean Water Act, the United States Environmental Protection Agency (USEPA) established Oil Pollution Prevention Regulations, which are codified in 40 CFR Part 112. These regulations establish procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States (U.S.) or adjoining shorelines.

These regulations apply to owners/operators of facilities engaged in storing, processing, transferring, distributing, using, or consuming oil and oil products, and other activities, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful into or upon navigable waters of the U.S.

The USEPA provides information on the regulations on its website:

<http://www.epa.gov/oilspill/spcc>

<http://www.epa.gov/oilspill/index.htm>

<http://www.epa.gov/epaoswer/hotline/spcc.htm>

Facilities are subject to the federal Oil Pollution Prevention regulations if:

1. The underground storage capacity of the facility is 42,000 gallons of oil or greater, or
2. The aggregate aboveground storage capacity of the facility is 1,320 gallons or greater of oil.

The *University of Rhode Island* is subject to these regulations based upon the quantities of oil stored on their campuses.

---

The facilities discussed in this plan are located at the following addresses:

***University of Rhode Island***  
**Kingston Campus**  
Route 138  
South Kingstown, RI 02881

***University of Rhode Island***  
**Narragansett Bay Campus**  
South Ferry Road  
Narragansett, RI 02882

***University of Rhode Island***  
**W. Alton Jones Campus**  
401 Victory Highway  
West Greenwich, RI 02816

This plan addresses oil pollution prevention at three campuses of the *University of Rhode Island* that were determined to be subject to the Federal regulations based upon the quantities of oil stored in aboveground and/or underground oil storage containers and tanks. The total volume of oils stored at each campus in *UNIVERSITY OF RHODE ISLAND*-owned above and below-ground containers/tanks equal to or greater than 55 gallons are as follows:

- ◆ Kingston – 141,529 gallons
- ◆ Narragansett Bay – 3,892 gallons
- ◆ W. Alton Jones – 4,991 gallons

This Oil Spill Prevention, Control & Countermeasures (SPCC) Plan has been developed in accordance with the requirements of 40 CFR Part 112.

---

**1.2 Professional Engineer's Certification (§112.3(d))**

**Plan Date: June 2010**

**Date of PE Certification: June 25, 2010**

**Date of Plan Review: May 2010 – June 2010**

## Certification

I, Catherine N. Lowery, attest that I have reviewed this *University of Rhode Island* Oil SPCC Plan for the Kingston, W. Alton Jones and Narragansett campuses and certify that:

- ◆ I am familiar with the requirements of the federal Oil Pollution Prevention regulations in 40 CFR Part 112;
- ◆ I have visited and examined the facilities included in this plan;
- ◆ The plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of the SPCC rule;
- ◆ Procedures for inspections and testing have been established; and,
- ◆ The plan is adequate for the facility.

**Professional Engineer:** Catherine N. Lowery

**Signature:**

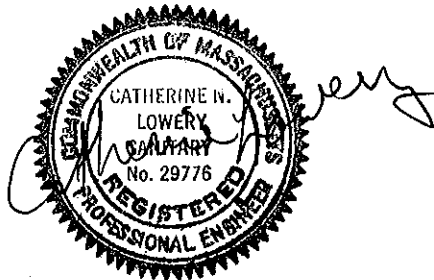
*Catherine N. Lowery*

**Registration Number:** SA-29776

**State:** Massachusetts

**Date:** 6-16-2010

**Stamp:**



---

### **1.3 Plan Review and Amendments (§112.4, 112.5(a) (b)(c))**

#### **1.3.1 Oil SPCC Plan Amendments Required by the U.S. EPA**

In accordance with 40 CFR Part 112.4, the Regional Administrator (RA) of the US EPA may require the amendment of this Oil SPCC Plan if:

- 1) The facility has a discharge exceeding 1,000 gallons of oil in a single discharge, or,
- 2) If more that 42 gallons of oil are discharged in each of two discharges occurring within any 12-month period.

If either of these two events occurs, the *University of Rhode Island* must submit information specified in the regulation to the RA within 60 days.

#### **1.3.2 Oil SPCC Plan Amendments Required in the Event of a Material Change**

In accordance with 40 CFR Part 112.5(a) this Oil SPCC Plan must be amended “when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge into or upon navigable waters of the U.S.”

Amendments to the plan must be prepared with six months and implemented as soon as possible, but not later than six months following plan amendment.

#### **1.3.3 Oil SPCC Plan Review & Evaluation**

In accordance with 40 CFR 112.5(b), a review and evaluation of this Oil SPCC Plan must be conducted at least once every five years from the date of the last review under the amended regulations finalized in November 2009. The *University of Rhode Island* will amend the Oil SPCC Plan within six months of the review to include more effective prevention and control technology: (1) if such technology has been field-proven at the time of the review, and (2) if such technology will significantly reduce the likelihood of a spill event from the facility.

The amendment will be implemented as soon as possible, but no later than six months following the amendment of the plan.

---

The review and evaluation of the Oil SPCC Plan must be documented and a statement signed as to whether the plan will or will not be amended, as follows:

*"I have completed review and evaluation of the Oil SPCC Plan for University of Rhode Island on the date(s) below, and will (will not) amend the Plan as a result."*

<u>Review Dates</u>	<u>Amendment</u>	<u>Signature</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

**All technical amendments will be certified by a registered Professional Engineer.**

#### **1.4 Conformance with Regulatory Requirements (§112.7(a)(1))**

The *University of Rhode Island* has developed this Oil SPCC Plan in accordance with the requirements of 40 CFR Part 112. Recommendations for improved documentation of inspection of all oil containing equipment and interstitial spaces, as needed, were implemented during the onsite Professional Engineer inspection process.

#### **1.5 Management Approval**

The *University of Rhode Island* is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains the industry standards for spill prevention control and countermeasures through regular review, updating, and implementation of this Oil Spill Prevention Control and Countermeasures Plan.

Authorized Facility Representative: \_\_\_\_\_

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Date**



---

## 2.0 GENERAL SITE INFORMATION (§112.7(a)(3))

**Name of Facility:** *University of Rhode Island*  
**Type of Facility:** *Academic/ Research Facility*  
**Location of Facility:** *South Kingstown, RI 02881*

**Name of Facility:** *University of Rhode Island*  
**Type of Facility:** *Academic/ Research Facility*  
**Location of Facility:** *Narragansett, RI 02882*

**Name of Facility:** *University of Rhode Island*  
**Type of Facility:** *Conference & Environmental Education Center*  
**Location of Facility:** *West Greenwich, RI 02816*

### **Name and address of owner or operator(s):**

#### **Owner/Operator**

Rhode Island Board of Governors for Higher Education  
Shepard Building  
80 Washington Street  
Providence, Rhode Island 02908

#### **Owner/Operator**

*University of Rhode Island*  
Kingston Campus  
Narragansett Bay Campus  
W. Alton Jones Campus- West Greenwich

#### **Contacts**

*University of Rhode Island*  
**J. Vernon Wyman**  
Assistant Vice President, Business Services  
Carlotti Building  
Kingston, RI 02881

*University of Rhode Island*  
**Jerome Sidio**  
Director, Facilities Services  
Sherman Building  
Kingston, RI 02881

*University of Rhode Island*  
**David Lamb**  
Utilities Engineer  
Sherman Building  
523 Plains Road  
Kingston, RI 02881

*University of Rhode Island*  
**Dr. Robert Drapeau**  
Director of Public Safety  
177 Plains Road  
South Kingston, RI 02881

---

*University of Rhode Island*

**Barbara Ray**

Coordinator of Hazardous Materials and Chemical Waste

Department of Public Safety

177 Plains Road

South Kingston, RI 02881

**Designated persons accountable for oil spill prevention at the facility:**

Name	Phone Number
J. Vernon Wyman	Office (401) 874-7435 Cell: (401-742-4161)
Jerome B. Sidio	Office: (401) 874-5488 Cell: (401)-639-7029

**3.0 SPCC PLAN OVERVIEW (§112.7(a)(3))**

**3.1 Facility Description**

The *University of Rhode Island* is an academic and research facility. The *University of Rhode Island* campuses are comprised of buildings with various purposes including dormitories, research laboratories, facility and maintenance buildings, dining halls, farm buildings, classrooms, Memorial Union, and Convocation Center. Site plans of the Kingston, Narragansett Bay and W. Alton Jones campuses are provided as Figures 1, 2, and 3, respectively, in Appendix A.

Kingston Campus

The Kingston Campus is situated at an approximate latitude of 41.43° and a longitude of -71.55°. The topography at the Kingston Campus slopes in a westerly direction. The eastern end of the campus has a ground elevation of approximately 240 feet above sea level and the western end has an elevation of about 100 feet above sea level. Any significant surface petroleum release at the campus would generally follow the ground contours and flow westerly.

Two of the more significant environmental features of the Kingston Campus include the White Horn Brook and 30-Acre Pond. White Horn Brook, a perennial stream per the United States Geological Society (USGS), flows in a southerly direction through the middle of the campus. The 2.6-mile long brook is a tributary of the Chipuxet River and discharges to the Great Swamp Wildlife Reservation. The annual flow of White Horn Brook is approximately 5.2 cubic feet per second.

---

The Rhode Island Department of Environmental Management (RIDEM) classifies White Horn Brook as Class A in reaches north of Route 138 and Class B in reaches south of Route 138. Thirty-Acre Pond is located along the western boundary of the Kingston Campus and is also part of the Chipuxet River system. RIDEM classifies water quality in 30-Acre Pond as Class B. Thirty-Acre Pond has a surface area of 16 acres and a maximum depth of 30 feet. Much of the Kingston Campus lies within a Community Wellhead Protection Area.

### Narragansett Bay Campus

The Narragansett Bay Campus is located on the banks of Narragansett Bay at the eastern end of South Ferry Road at approximate latitude of 41.49° and a longitude of -71.42°. This campus has a high point approximately 120 feet above sea level and the land slopes easterly to sea level.

### W. Alton Jones Campus

The W. Alton Jones Campus is found at a latitude of 41.62° and a longitude of -71.67°. Acid Factory Brook, Phillips Brook and Phillips Pond are water bodies located within the Alton Jones Campus. Phillips Brook discharges to the Flat River in the Arcadia Management Area in Exeter, RI.

## **3.2 Oil Storage**

Oil storage facilities are located in or adjacent to several of the facility buildings. The site plans presented in Appendix A identify the locations of these facilities at each campus. The stored oil is used for a variety of applications, including:

- Fuel oil for heating;
- Hydraulic fluids for equipment such as elevators;
- Transformer oil;
- Waste oil;
- Cooking oil/grease;
- Diesel oil to power generators; and
- Gasoline to fuel vehicles and equipment.

---

## **Types of Oils Stored and Storage Volumes**

### U.S. EPA Definition:

*Oil means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil. (§112.2).*

In the preamble to the regulations EPA notes that other non-petroleum oils and greases include coal tar, creosote, silicon fluids, pine oil, turpentine, and tall oils. Petroleum Oils include crude and refined petroleum products, asphalt, gasoline, fuel oils, mineral oils, naphtha, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

The tables below identify the types of oils used at the *University of Rhode Island* campuses and their approximate total volumes. Aboveground storage totals include all oil types and sizes of tanks and containers with a capacity of 55 gallons or greater at the three campuses.

### **University of Rhode Island - Kingston Campus**

<b>Product</b>	<b>Aboveground Storage (gallons)</b>	<b>Underground Storage (gallons)</b>
Gasoline	0	0
#2 Fuel	103,725	0
Diesel	9,233	0
Waste Oil	605	0
Lube Oil	1,210	0
Cooking Oil/Grease	650	0
Hydraulic Oil	6,433	0
Transformer Oil	19,673	0
<b>Total</b>	<b>141,529</b>	<b>0</b>

**University of Rhode Island - Narragansett Bay Campus**

Product	Aboveground Storage (gallons)	Underground Storage (gallons)
Gasoline	0	0
#2 Fuel	0	0
Diesel	2,857	0
Waste Oil	55	0
Lube Oil	165	0
Cooking Oil/Grease	0	0
Hydraulic Oil	815	0
Transformer Oil	0	0
<b>Total</b>	<b>3,892</b>	<b>0</b>

**University of Rhode Island - W. Alton Jones Campus**

Product	Aboveground Storage (gallons)	Underground Storage (gallons)
Gasoline	1,000	0
#2 Fuel	3,575	0
Diesel	55	0
Cooking Oil/Grease	110	0
Hydraulic	141	0
Transformer Oil	55	0
Lube Oil	55	0
<b>Total</b>	<b>4,991</b>	<b>0</b>

Oil is stored at a variety of locations onsite at each campus. Oil storage locations, tank/container sizes, and the predicted flow rate and direction of any releases are presented in Appendices B1-B3.

*Note that tanks and containers owned and operated by state agencies and private companies, including certain transformers, the gasoline and diesel underground tanks at the Kingston Campus Automotive Garage, underground fuel storage tanks at the fraternity houses, and cooking grease drums at the fraternity houses, are not listed in Appendices B1-B3 or shown on the figures. The owning entities are responsible for compliance with applicable regulations and any releases from their tanks/containers.*

---

### **3.3 University of Rhode Island Policies on Oil Storage, Spill Prevention, and Spill Containment (§112.7(a)(3)(i-v))**

The *University of Rhode Island* has instituted policies for proper oil storage, mitigation of the impact of any spills, and spill response for all campuses. To achieve the University's primary goal to prevent the occurrence of spills at the facility, it has developed and implemented specific procedures to that end. *University of Rhode Island* supplements this spill prevention initiative with a philosophy that should a spill event occur, the primary means to stop a release is to contain the material within the immediate area of the occurrence. For this reason, the *University of Rhode Island's* oil management system has also established several spill containment procedures for implementation in the event a spill should occur.

The specific policies and procedures described in this plan are designed to provide spill prevention and containment on the *University of Rhode Island's* campuses.

#### **3.3.1 Container and Drum Storage**

The general strategy for preventing releases from *University of Rhode Island* facilities is to handle containers and drums properly, and, where needed, to contain a spill in the general area where the material is stored. The following policies have been instituted:

- Containers of oil are properly labeled and stored upright or on drum cradles.
- Containers of oil must be properly handled and transported by trained personnel.
- Oil storage containers exceeding 55 gallons storage capacity are stored in secondary containment (or are otherwise contained), so as to provide 100% containment of the largest container volume in case of a leak or rupture.
- Spill equipment (absorbent material, spill containment equipment) is maintained at oil and loading/unloading storage areas for tanks >500 gallons throughout the campus. Additional spill equipment is stocked by the Department of Public Safety and bags of oil absorbent are available at the Automotive Garage.

---

Spill prevention measures taken by the *University of Rhode Island* are selected based on site-specific conditions, taking into consideration the practical application of a physical means of containment or engineered structure (e.g., berms, dikes, etc.) and the relative potential for spills or releases.

In some cases, secondary containment does not exist, however, spill equipment is available nearby, and institutional controls (i.e. procedures) have been implemented. Details of secondary containment and spill prevention equipment are included in Appendix B.

### **3.3.2 Aboveground Tanks & Containers**

There are currently 207 aboveground storage tanks/containers throughout the Kingston campus, 18 aboveground storage tanks/containers at the Narragansett campus, and 16 tanks/containers at the W. Alton Jones campus. Transformers owned by utility companies are excluded. A list of these tanks/containers, their contents and locations is included in Appendices B1-B3 of this plan.

Of the aboveground storage tanks at the Kingston Campus, the largest are the three 29,600-gallon fuel tanks located at the Steam Plant, that were installed in 1998. Please refer to Figure 4 for a schematic depiction of the tanks. Each steel tank has a diameter of 12 feet and a height of 35 feet. The tanks were installed within a concrete containment dike that was poured over an 80-mil high-density polyethylene membrane. The floor of the dike is lined with a continuous, elastomer grade thermoplastic. The dike has an approximate storage capacity of 45,000 gallons (150% of a single tank in the containment system). The bottom sides of the tanks have been coated to prevent corrosion from standing rainwater. A sump is provided within the containment area to allow any rainwater that does accumulate to be removed.

The individual fill pipes for each tank are enclosed within a steel weather shield. The fill station has a lockable access door and a drip pan under oil fill connections. The drip pan has a piped overflow into the secondary containment enclosure. The tanks are equipped with a high level warning alarm (95% capacity) and a check valve is incorporated into the fill piping to prevent backflow from the tanks. Both the delivery truck operator and facility personnel must be present during filling operations as required by the State Fire Marshall.

The general strategy for preventing releases is to contain any spill of oil in the general area until such time as the material can be removed. The following procedures have been established:

- 
- In rooms or outdoor areas with existing storage tanks near open floor or storm drains, or sensitive receptors, the drains are permanently plugged, capped or covered, if possible; or temporarily covered during refilling operations.
  - Containment measures, such as the placement of curbs, berms, or spill pillows at doors or other exits, are used to contain spills within the rooms in which they occur.
  - The Facilities Services Department currently inspects all tanks 500-gallons or greater on a monthly basis and documents the inspections. The Utilities Engineer reviews all inspection logs. An annual report of the inspections is submitted to the Rhode Island Department of Environmental Management as required by the Rhode Island Oil Pollution Control Regulations. (Appendix F)

The *University of Rhode Island* has developed a fuel delivery procedure and will work with the fuel delivery drivers and the oil companies in implementing this procedure. A copy of the procedure is included in Appendix E.

### 3.3.3 Underground Tanks

There are no known underground oil tanks at University of Rhode Island campuses, Kingston, Narragansett Bay or W. Alton Jones. There are grease traps, described below, which are inspected annually with the municipal wastewater personnel, and pumped on a routine basis. The inspection records are kept on file.

#### Kingston Campus

There are four underground storage tanks on the **Kingston Campus**. There are two 1,000-gallon and one 1,500-gallon grease traps located near dining facilities. They are serviced and pumped by a septic hauler.

#### W. Alton Jones Campus

There are two underground storage tanks at the **W. Alton Jones Campus**, including one 1,000-gallon grease trap and one 4,000-gallon grease trap.



---

### 3.3.4 Hydraulic Equipment

There are elevators in buildings at each of the *University of Rhode Island* campuses that contain hydraulic oil. The elevators are maintained by an outside contractor. The elevators are inspected on a routine basis. Spill kits are available from the Department of Public Safety and at various locations on each campus in the event of a spill. A list of these tanks, their contents and locations is included in Appendix B of this plan.

## 4.0 POTENTIAL SPILLS - PREDICTION AND CONTROL (§ 112.7(b) & (c))

Subsection 112.7(b) of the federal regulations requires that the plan identify locations where experience indicates that a reasonable potential for equipment failure exists. At these locations the plan should include a prediction of the flow direction, rate of flow, and total quantity of oil that could be discharged from the facility as a result of such a failure. Subsection 112.7(c) further states that containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable watercourse should be provided.

Appendix B lists the locations where oil is stored and where spill events could occur, indicates stored oil volumes, predicts potential flow rates and flow directions, and discusses the containment and/or diversionary structures or equipment that are used to prevent discharged oil from reaching a surface water. The information is listed based on the tank/container location.

## 5.0 CAMPUS DRAINAGE (§ 112.8(b))

### 5.1 Drainage Systems

When practicable, the *University of Rhode Island* makes every effort to store and handle oil in contained areas or within secondary containment. Oil is stored in various buildings at the *University of Rhode Island* facilities. Floor drains near any oil tanks or containers are plugged or located outside of secondary containment.

Most aboveground storage tanks are located on concrete or asphalt surfaces or within buildings with concrete floors. The Steam Plant tank/container storage area at the Kingston campus is diked to collect storm water; all collected storm water is inspected prior to pumping through an oil-water separator. The pump is manually activated. Any minor amount of oil is removed from the storm water prior to discharge or reuse.

---

If oil is found on the water in the sump at the Kingston Campus Steam Plant storage tank containment dike, the Plant Manager is notified prior to pumping the water. The fuel oil will be removed as follows:

- If only a slight film is present, absorbent pads will be placed on top of the water to remove the film. These pads will then be disposed by a licensed hazardous waste transporter.
- If a large-scale oil release is found, the source/leak will be isolated and a waste disposal firm will be contracted to remove the oil and the leak will be repaired.
- All waste oil material generated must be removed by a licensed hazardous waste transporter.

If there is no oil present in the sump, the storm water is run through an oil-water separator and discharged to the South Kingston Wastewater Treatment System.

There are no other outside areas that are diked to provide secondary containment that would collect storm water. Should such containment be constructed in the future, drain valves or caps will be normally closed and storm water will be collected. Following precipitation events, the collected storm water will be inspected for oil and/or sheen prior to discharge.

## 6.0 BULK STORAGE TANKS/CONTAINERS (§ 112.8(c))

“Bulk storage container” is defined in the regulations as *any container used to store oil except oil filled electrical, operating, or manufacturing equipment*. For purposes of this plan, the terms “tank” and “container” are used interchangeably. The following drawings showing specific tank details and associated piping are presented in Appendix A:

Figure 4 – Steam Plant Tanks (Kingston, 29,600 gal. No. 2 fuel)

Figure 5 – White Hall (Kingston, 6,000 gal. No. 2 fuel)

Figure 6 – Main Office (W. Alton Jones, 1,000 gal. gasoline)

Figure 7 – 275 – 350 gal. single wall tank

Figure 8 – 275 gal. double wall, Roth tank

Figure 9 – 375 to 1,000 gal. double wall vertical tank

Figure 10 – Generator Base Tanks

Figure 11 – Elevator Hydraulic Oil Reservoir

Figures 7 through 11 are typical drawings that represent multiple tanks at the campuses. Oil storage tank inventories for the *University of Rhode Island* campus are provided in Appendix B. Appendix B lists the figure number that corresponds to each tank configuration illustration.

---

There are aboveground storage tanks or containers (including hydraulic elevator tanks) at each of the three campuses. Absorbent materials are stored in close proximity. None of the tanks are equipped with internal heating coils.

#### **6.1 Tank Materials and Construction (§ 112.8(c)(1))**

Aboveground storage tanks are steel and compatible with the material stored within them and with other conditions of storage.

#### **6.2 Secondary Containment (§ 112.8(c)(2))**

The *University of Rhode Island* converted all #2 fuel oil storage tanks to double-walled Roth tanks in 2003.

The *University of Rhode Island's* fuel oil delivery contractor performs fuel deliveries in compliance with U.S. Department of Transportation (DOT) unloading regulations. The fuel delivery contractor maintains absorbent pads and spill containment materials on each oil delivery truck. The delivery contractor is also responsible for providing oil absorbent booms or socks under each loading pipe to prevent spillage or leakage of oil into the environment.

#### **6.3 Buried or Partially Buried Metallic Tanks (§112.8(c)(4)&(5))**

There are no known University-owned completely buried steel tanks on any campus. There are no partially buried metallic storage tanks at any of the *University of Rhode Island* campuses.

#### **6.4 Aboveground Storage Tank Integrity Testing Schedule (§112.8(c)(6))**

Federal oil pollution prevention regulations set forth in 40 CFR Part 112 require integrity testing of aboveground oil storage tanks/containers on a regular schedule. The *University of Rhode Island* stores oil in 55-gallon drums and in larger tanks (i.e., 275, 330 gals, etc.).

In accordance with clarification provided by EPA Region I, Department of Transportation (DOT) approved 55-gallon drums are not subject to integrity testing as they are already in conformance with required industry standards. Currently there is no industry standard established for the smaller fuel tanks (e.g., 275 and 330 gallons), therefore, the 275-gallon waste oil AST located at the garage (A-14) is recommended to be replaced every 20 years in lieu of integrity testing.

In addition, there are no industry standards for integrity testing of tanks incorporated into hydraulic elevator equipment. These tanks will be inspected on a routine basis. And, because secondary containment will be provided, these measures are adequate to prevent a discharge.

---

Most of the aboveground oil storage tanks at the three campuses have double-wall containment, making integrity testing impractical. In these cases, the interstitial space on the tank will be monitored twice per calendar year by observing the monitoring device, i.e., float in Roth tank, or opening the access port or drain plug to the interstitial compartment and examining for leaks. This will be conducted in lieu of integrity testing. This applies to all double-walled tanks including generator tanks.

Periodic tank integrity testing for the three Kingston Campus Steam Plant ASTs is required and will be conducted during the summer months when the tanks can be more easily taken out of service. The Steel Tank Institute has published “Standard for Inspection of In-Service Shop Fabricated Aboveground Tanks for Storage of Combustible and Flammable Liquids”, SP001-03, January 2003 which is a recognized standard for integrity testing smaller, shop fabricated tanks.

A tank integrity test/replacement schedule has been developed based upon the above rationale and is presented in Appendix C.

### **6.5 Container Installations – Good Engineering Practices (§112.8(c)(8))**

All above tanks are equipped with either liquid level indicators or vent whistles, or the liquid level can be observed while filling the container (e.g., drums, elevator reservoirs, and generator tanks); storm drains are protected when tanks are being filled in accordance with the Fuel Delivery Procedure presented in Appendix E.

- Aboveground tanks have vent whistles and/or are observed during filling.
- Liquid levels within drums and small containers are observed while filling.

### **6.6 Facility Wastewater Discharges (§ 112.8(c)(9))**

The wastewater from the Kingston campus is collected in a municipal sewer system and discharged to the South Kingston Wastewater Treatment Facility. Wastewater from the W. Alton Jones Campus is disposed of on site via subsurface disposal facilities.

The Narragansett Bay Campus sanitary wastewater discharges to the Town of Narragansett wastewater system and is ultimately discharged at the South Kingston Wastewater Treatment Facility. Treated wastewater is discharged from the treatment plant into the Atlantic Ocean.

By implementing containment procedures, providing secondary containment in indoor oil storage areas, and by maintaining a readily available supply of absorbent materials in such areas, the *University of Rhode Island* minimizes the potential for oil spills occurring in campus buildings to reach the sewer system, and therefore navigable water.

---

## **6.7 Visible Oil Leaks and Mobile Oil Storage Tanks (§112.8(c)(10)&(11))**

Upon discovery, oil leaks that could result in a loss of oil from tank seams, gaskets, rivets and bolts, are promptly reported to the Department of Public Safety for assessment and corrective action.

Leaks are corrected by the Facilities Department personnel on an as-needed basis. Spill equipment is nearby in the event of a release.

Mobile or portable oil storage containers used on either campus will be furnished with a secondary means of containment such as a dike or catchment basin to contain the capacity of the largest single compartment or container with sufficient freeboard for precipitation.

## **7.0 TRANSFER OPERATIONS, PUMPING AND IN-PLANT PROCESSES (§112.8(d))**

The principal transfer operations taking place at the campuses involves the transfer of fuel oil from delivery trucks to aboveground tanks and from the containers to its point of use or the removal of waste oil for recycling. In addition, the *University of Rhode Island* transfers products from containers on an as-needed basis. Oil is pumped from the oil storage tanks by various pumping and pipeline systems to its point of final use. No aboveground oil pipes are located near vehicular traffic; therefore, warning signs are not required at these facilities.

### **7.1 Buried Piping (§ 112.8(d)(1))**

Buried piping that is installed or replaced will be provided with a protective wrapping and coating. The *University of Rhode Island* campus has both underground and aboveground piping systems. All accessible aboveground systems are visually inspected on a monthly basis. Buried piping systems are visually inspected whenever they are exposed.

### **7.2 Out-of-Service Pipelines (§112.8(d)(2) & 112.7(g)(4))**

The *University of Rhode Island-Kingston* campus currently has no known out-of-service pipelines on any of the campuses. However, when pipelines are not in service or are in standby mode for an extended period of time, the terminal connection at the transfer point is capped and marked as to its origin.

---

### **7.3 Pipe Supports and Aboveground Pipelines and Valves (§112.8(d)(3) and (4))**

Oil transfer pipeline supports have been designed and constructed to minimize abrasion and corrosion and allow for expansion and contraction. The Facilities Services Department visually examines the aboveground pipelines, valves, and pipe supports as described in Section 9.0.

An oil transfer line to service the vessel Endeavor is permanently installed along the access dock. The line is drained after each use and the ends are closed and locked when not in use. The integrity of this pipe is verified prior to each use. Oil on board the Endeavor is managed in accordance with Coast Guard Regulations.

### **8.0 TANK TRUCK LOADING AND UNLOADING (§112.8(d))**

Tank truck unloading at the *University of Rhode Island* consists primarily of bulk deliveries of fuel oil to their respective aboveground storage tanks. Contractors are required to follow the *University of Rhode Island's* established spill prevention guidelines. Fueling procedures are presented in Appendix E.

#### **8.1 Department of Transportation Regulations**

An independent delivery supplier, under contract with *University of Rhode Island*, performs tank truck loading and unloading. The loading and unloading procedures implemented by the carriers meet the minimum requirements and regulations established by the Department of Transportation. (49 CFR 177.834 and 177.837).

### **9.0 INSPECTIONS AND RECORDS (§112.7(e))**

Monthly inspections are currently conducted by the Facilities Department on all aboveground storage tanks greater than 500-gallons in accordance with the Rhode Island Oil Pollution Control Regulations, Section 10(d)(1) (included in Appendix F). Records are maintained in the Utility Engineer's Office.

The current monthly inspections include:

- Inspecting exterior surfaces of tanks, pipes, valves, and other equipment for leaks, maintenance deficiencies and other equipment deficiencies;
- Identifying cracks, areas of wear, corrosion and thinning, poor maintenance and operating practices, excessive settlement of structures, separation or swelling of tank insulation, malfunctioning equipment and structural and foundation weakness; and
- Inspecting all monitoring or warning systems that are in place.

If an inspection reveals a tank equipment failure, monitoring equipment failure, and/or excessive thinning of a tank shell that would indicate structural weakness, remedial measures shall be taken

---

to eliminate any leak or potential leak. Deficiencies are reported to the Facility Supervisor of each campus and corrected in a timely manner.

Elevator reservoirs are inspected, serviced and maintained routinely by a contractor. Transformers are serviced and maintained by a contractor as needed.

Inspection records of all tanks, containers, and secondary containment are maintained and reviewed by the Facilities Services Department. Example inspection checklists are presented in Appendix D. All records are signed by the appropriate supervisor and kept on file in the Utility Engineer's Office for three years.

## **10.0 SECURITY (§112.7(g))**

### **10.1 Fencing and Gates (§112.7(g)(1))**

The *University of Rhode Island* campuses do not have fences around the entire properties. All aboveground oil storage areas on the *University of Rhode Island* campus are inside secured buildings and behind locked doors or otherwise secured areas, or are outside and identified properly. Fuel delivery areas are located in unfenced areas; however, all the campuses have security (Kingston and Narragansett Bay) or on-site staff (W. Alton Jones) 24 hours a day.

The *University of Rhode Island* Campus Police and Security Department (401-874-2121) is accessible during the delivery of fuel at all times. The delivery of fuel will be manned and the fuel directed to proper tanks, monitoring fueling rate and tank liquid level. In addition, the *University of Rhode Island* maintains a staff of security guards that routinely patrol the Kingston and Narragansett campuses 24 hours/day, 7 days/week, 365 days/year. *University of Rhode Island* staff are available at the W. Alton Jones campus and can contact *University of Rhode Island* security or municipal police as needed.

### **10.2 Flow Valves, Starter Controls, and Pipeline Loading/Unloading Connections (§112.7(g)(2)&(3))**

Master flow valves, starter controls, and other equipment related to initiating the flow of oil are all located inside secured *University of Rhode Island* buildings and are not accessible to unauthorized personnel.

### **10.3 Facility Lighting (§112.7(g)(5))**

Lighting provided in and around the facilities is sufficient to provide for the detection of spills during hours of darkness and should deter acts of vandalism that could otherwise result in oil spills. Outdoor oil storage is not readily accessible to acts of vandalism.

---

## 11.0 PERSONNEL TRAINING AND SPILL PREVENTION PROCEDURES (§112.7(f))

The training program as described below is routinely conducted as part of this SPCC Plan.

The *University of Rhode Island* provides annual training to all oil-handling personnel involved with the operation and maintenance of equipment to prevent the discharge of oil. Training elements include:

- ◆ discharge procedure protocols;
- ◆ applicable pollution control laws, rules, and regulations;
- ◆ general facility operations; and,
- ◆ the contents of the facility's Oil SPCC Plan.

The *University of Rhode Island* schedules and conducts discharge prevention briefings for oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. The training highlights and describes known discharges as described in 40 CFR 112.1(b), or failures, malfunctioning components, and recently developed precautionary procedures.

*University of Rhode Island* personnel responsible for overseeing and responding to oil spills at the campuses are provided with appropriate hazardous materials spill response training and precautionary measures. Documentation of all such training will be maintained in the Department of Public Safety office files.

At the *University of Rhode Island*, David Lamb, Utilities Engineer, is the designated person accountable for oil spill prevention and who reports to line management.

## 12.0 SPILL RESPONSE/NOTIFICATION PROCEDURES (§112.7(a)(4))

This section details the response and notification procedures that are to be implemented in the event of any oil spill from the *University of Rhode Island* campus that has the potential to reach navigable waters. The potential for an accidental release of oil to a navigable waterway exists at all campuses. The Kingston Campus has the potential to discharge to White Horn Brook and 30-Acre Pond. The Narragansett Bay Campus is on the banks of Narragansett Bay. The W. Alton Jones Campus has the potential to discharge to Phillips Brook and Phillips Pond.

### 12.1 Immediate Response/Notification

Upon discovery of a spill or leak, personnel are instructed to stop the discharge to the extent possible (considering health and safety issues). They are instructed to take immediate measures (such as deploying spill containment materials) to contain the spill in the immediate area and prevent the oil from reaching a floor drain or storm drain, or waters of the U.S.



---

After taking initial containment measures, the person discovering the spill must call **Campus Security** at **(401) 874-2121** to provide the following information:

- Location, date, and time of release
- An assessment of the potential for the release reaching a catch basin, floor drain, or release to the sewer, or discharge over land to a navigable waterway, wetland or other sensitive receptors.
- Type of oil released
- Approximate quantity of oil released
- Source of release
- Description of release
- Name and telephone number of the responsible person in the area where the release occurred
- Description of immediate response actions taken
- Any other information, including potential environmental impacts, that is relevant to assessing the degree of the hazard posed by the release.

Pursuant to the procedures in this SPCC Plan, individuals are responsible for immediately contacting Campus Police Dispatch Office. The Campus Police dispatcher contacts the on-call environmental coordinator or other appropriate response team members at the *University of Rhode Island*.

For spills that have reached or have the potential to reach a floor drain, catch basin or other vessel leading to either Phillips Pond, Phillips Brook, or Acid Factory Brook, - (W. Alton Jones Campus); White Horn Brook, 30-Acre Pond or Chipuxet River – (Kingston Campus); Narragansett Bay – (Narragansett Bay Campus) or another sensitive receptors, notification of the proper persons within *University of Rhode Island* and the regulatory agencies must be made.

## **12.2 Facility/ Security Responsibility**

A record of all calls is logged at the Campus Police Dispatch Office for compliance notification. As soon as possible after the incident, the on-call environmental coordinator must be contacted.

---

In the event of a spill of a reportable quantity, see Section 12.4, of oil or other hazardous substance to a navigable waterway, the *University of Rhode Island* is required by state and federal regulations to **immediately** inform the National Response Center, the Rhode Island Department of Environmental Management, and the Rhode Island State Emergency

Response Commission (SERC). Additionally notification to the local fire department, the Local Emergency Planning Committee (LEPC), and the sewer authority may be required.

The notification will include the location of the spill and as much as is known of the extent of the situation. If any spill occurs which has the potential of reaching storm sewers, surface waters, or a navigable waterway on either campus, the decision to notify the agencies will be the responsibility of the Director of Public Safety or the Coordinator of Hazardous Materials and Chemical Waste, or another senior manager of the Department of Public Safety or the Assistant Vice President for Business Services. If they cannot be reached within 2 hours of the spill, one person from the Public Safety Department will verify the need to contact the RI DEM and USEPA.

### 12.3 Contact List (§112.7(a)(3)(vi))

1. **A Facility On-Call Emergency List is maintained at the Kingston Campus Police and Security Office for all campuses.** A calling list for environmental concerns is provided by the Department of Public Safety.
2. **The calling tree is as follows:**
  - **Chemical Hygiene Officer, on call**
  - **Coordinator of Hazardous Materials and Chemical Waste**
  - **Director of Public Safety**
  - **Assistant Vice President for Business Services**
3. **UNIVERSITY OF RHODE ISLAND Police and Security, Public Safety Dispatch**  
All campuses (401) 874-2121
4. **Spill Response Contractors:** The State of Rhode Island maintains a master price agreement (MPA-118) with several vendors. There are currently five vendors on the list for “Hazardous Waste and Petroleum Related Emergencies”. Any state agency can utilize this list and issue a purchase order, for services as needed. The current vendors are:
  - Clean Harbors Environmental Services: (401)-431-1847
  - Corporate Environmental Advisors, Inc.: (401)-334-3313
  - Marshall Environmental Group, Inc.: (401)736-9001
  - TMC Services Inc.: (508) 966-3737
  - United Industrial Services: (888)-276-0887

---

At the 2003 Tier 2 (EPCRA) training session the RI SERC announced that for a reportable quantity chemical or oil release notification must occur to three numbers: 1) 911, 2) RI DEM, and 3) the National Response Center. The numbers are listed below.

5. **Federal EPA at the National Response Center- (NRC) in Washington, D.C.** Phone Number 1-800-424-8802. If no answer, call the alternate number, (202) 267-2675, or call EPA Regional Headquarters at (617) 223-6700. NRC should be informed of the location of the spill, and the quantity and type of oil spilled. If appropriate, the caller should also identify the potential for discharge to the sewer system or a navigable waterway. **It is important to record the case file number for future use.**

6. **Rhode Island Department of Environmental Management:** During normal work hours call the DEM Office at (401)-222-1360. In the evening call the spill reporting number at (401)-222-3070 or (800)-498-1336 and follow voicemail instructions to report a spill.

7. **Rhode Island Emergency Dispatcher: 911 Note: From UNIVERSITY OF RHODE ISLAND phones dial 9-911.**

Other Agencies may require notification depending on the nature of the incident:

8. **Rhode Island State Emergency Response Commission (SERC): (401) 294-0861;**

9. **Kingston Fire District: (401) 783-2422**

10. **Town of Narragansett Fire Department: (401) 789-1011**

11. **Hiantland Fire Company, West Greenwich, RI: (401) 397-7819**

12. **State Fire Marshall: (401) 294-0861 (Same phone number as the SERC)**

13. **S. Kingston and Narragansett Waste Water Treatment Facility (401) 788-9771**

14. **DOT Emergencies (gas, diesel tank problems (401) 222-2378 at the Automotive Garage fuel tanks)**

15. **Coast Guard – Rhode Island Office (401) 435-2300**

---

The personnel providing notification should be prepared to offer the following information:

- Exact address or location
- Name and Phone Numbers of:

All Campuses

- Owner/Location – *University of Rhode Island*
  - Contact Person- **Ms. Barbara Ray, Coordinator of Hazardous Materials and Chemical Waste** or **Dr. Robert Drapeau, Director of Public Safety. Telephone: 401-874-2618; Fax: 401-789-5126.**
  - Name of person reporting the spill or incident
- 
- Date, and time of the discharge
  - Type of material released
  - Estimates of the total quantity discharged
  - The source of the discharge
  - The cause of the discharge
  - How close to surface water the discharge occurred
  - Description of all affected media
  - Any damages or injuries caused by the discharge
  - Actions being used to stop, remove and mitigate the effects of the discharge
  - Whether an evacuation may be needed
  - Names of emergency response contractors or other organizations that have been contacted.
  - Names of other federal, state, or local governmental agencies that have been notified and/or have responded to the release.
  - Set of notification criteria that is the basis for State Agency notification (*in most cases, release to sewer, storm drain or water body*)

- 
- Any other information, including without limitation, potential environmental impacts, relevant to assessing the degree of hazard posed by the release.

Following completion of the initial response and notification activities facility personnel will restock emergency equipment, restore the impacted area and properly manage contaminated debris, and issue any required reports of the incident.

#### **12.4 Reporting Requirements: U.S. EPA - Significant or Multiple Releases to Surface Water (§112.4)**

SPCC regulations require that if any oil storage facility subject to 40 CFR 112 Part experiences a release of either: 1) more than 1,000 U.S. gallons of oil into a waterway, or 2) more than two discharges of 42 gallons or oil or greater into a waterway within any twelve month period, the owner or operator of such facility shall submit to the Regional Administrator (U.S. EPA Region I) and to the State Department of Environmental Management (RI DEM), within 15 days of the incident, the following information:

1. Name of facility;
2. Name(s) of the owner or operator of the facility;
3. Location of the facility;
4. Maximum storage or handling capacity of the facility and normal daily throughput;
5. Corrective action and countermeasures that were taken, including a description of equipment repairs and replacements;
6. An adequate description of the facility, including maps, flow diagrams, and topographical maps as necessary;
7. The cause(s) of such discharge, including a failure analysis of system or subsystem in which the failure occurred;
8. Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and
9. Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

---

Copies of this report should be forwarded to the following addresses:

**U.S. EPA Region 1**

U.S. Environmental Protection Agency  
Region 1- New England  
1 Congress Street Suite 1100  
Boston, MA 02114

**Rhode Island DEM**

Dept. of Environmental Management  
235 Promenade Street  
Providence, RI 02908

**12.5 Rhode Island DEM Release Reporting Requirements (Section 46-12.7)**

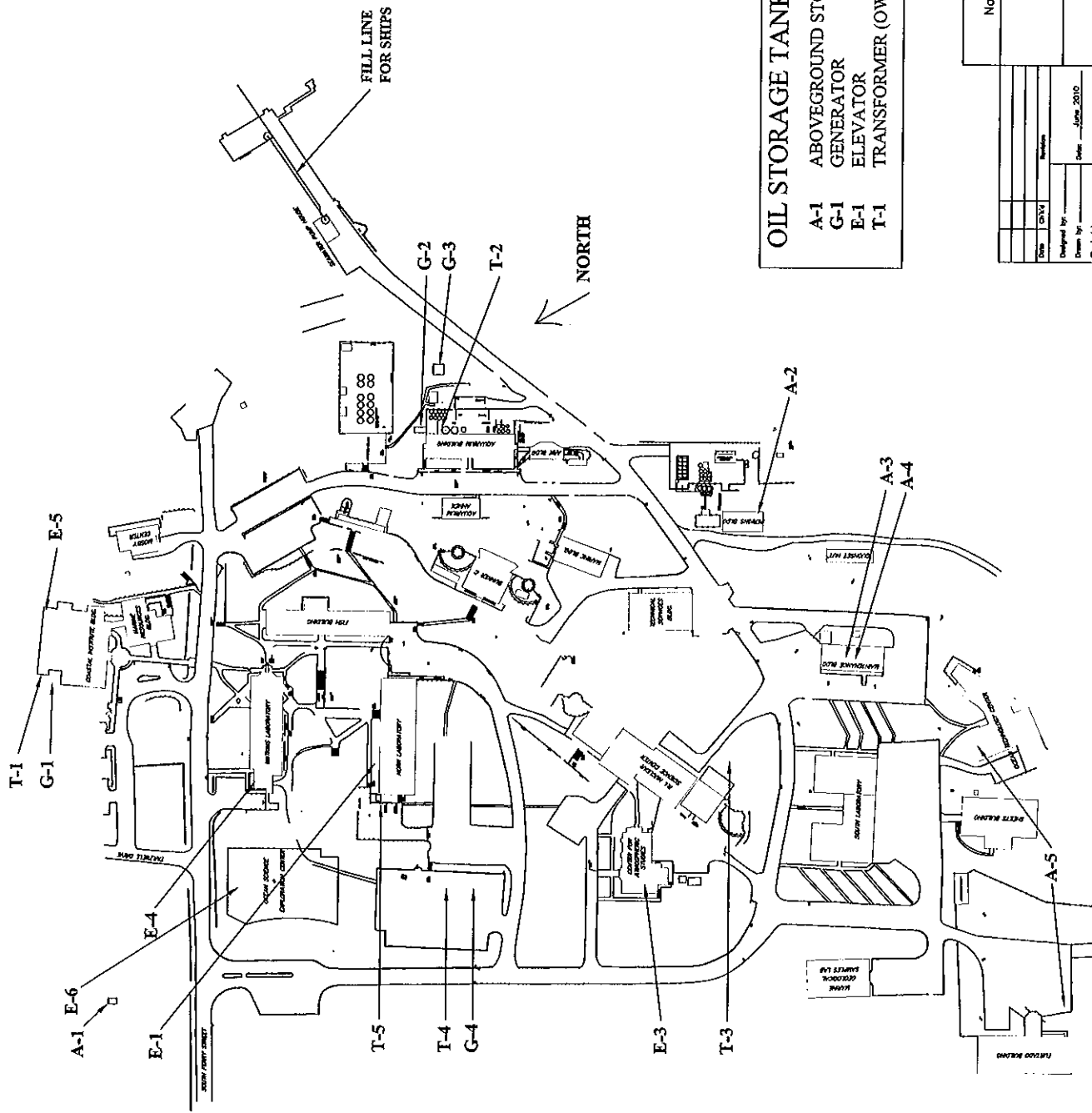
- 1) The type of environment that the discharged oil enters, such as, but not limited to, a stream or tributary that is capable of, or has historically supported, anadromous fish; a freshwater environment with significant or substantial aquatic resources; or an estuarine, intertidal, or salt water environment;
- 2) The amount of oil spilled;
- 3) The type of oil spilled;
- 4) The toxicity, degradability, and dispersal characteristics of the oil spilled; and
- 5) Any mitigating action that the vessel master or the facility owner or operator may have taken to stop or to control the discharge of oil.

---

## **Appendix A. Facility Site and Tank Drawings**



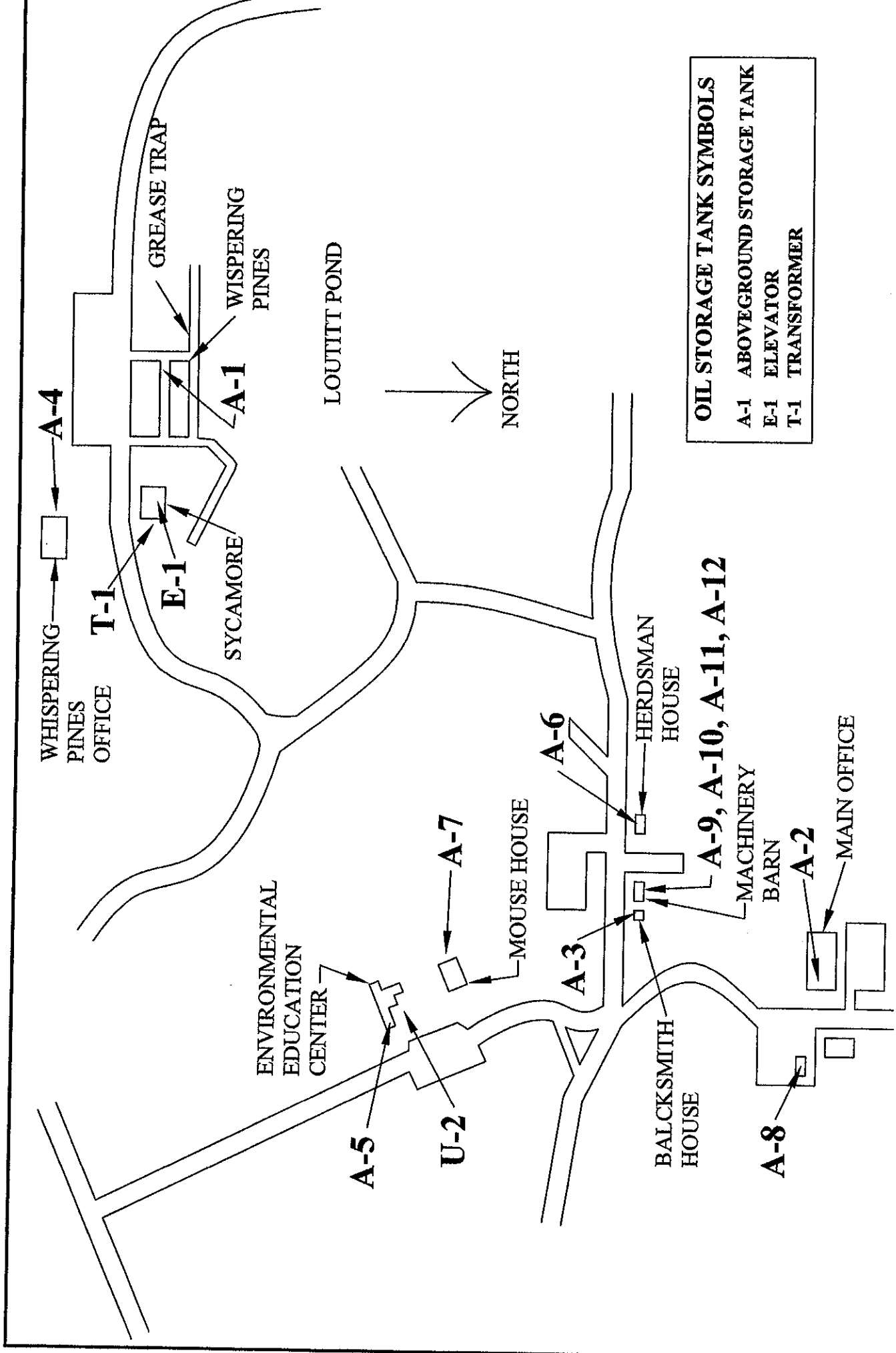




**OIL STORAGE TANK SYMBOLS**

- A-1 ABOVEGROUND STORAGE TANK
- G-1 GENERATOR
- E-1 ELEVATOR
- T-1 TRANSFORMER (OWNED BY OTHERS)

University of Rhode Island Narragansett Bay Campus		SPCC Site Plan	FIGURE 2
The University of Rhode Island Narragansett Bay Campus 500 Narragansett Blvd. Narragansett, RI 02882			
Designed by:	Checked by:	Scale:	1"=50'
Drawn by:	Date:	June 2010	



**OIL STORAGE TANK SYMBOLS**  
 A-1 ABOVEGROUND STORAGE TANK  
 E-1 ELEVATOR  
 T-1 TRANSFORMER

FILE NAME: WAJ Site SCALE: NTS  
 DRAWN BY: KJS DATE: June 2010  
 APPROVED BY: JOB NO.:



**SPCC Site Map**  
 W. Alton Jones Campus  
 University of Rhode Island

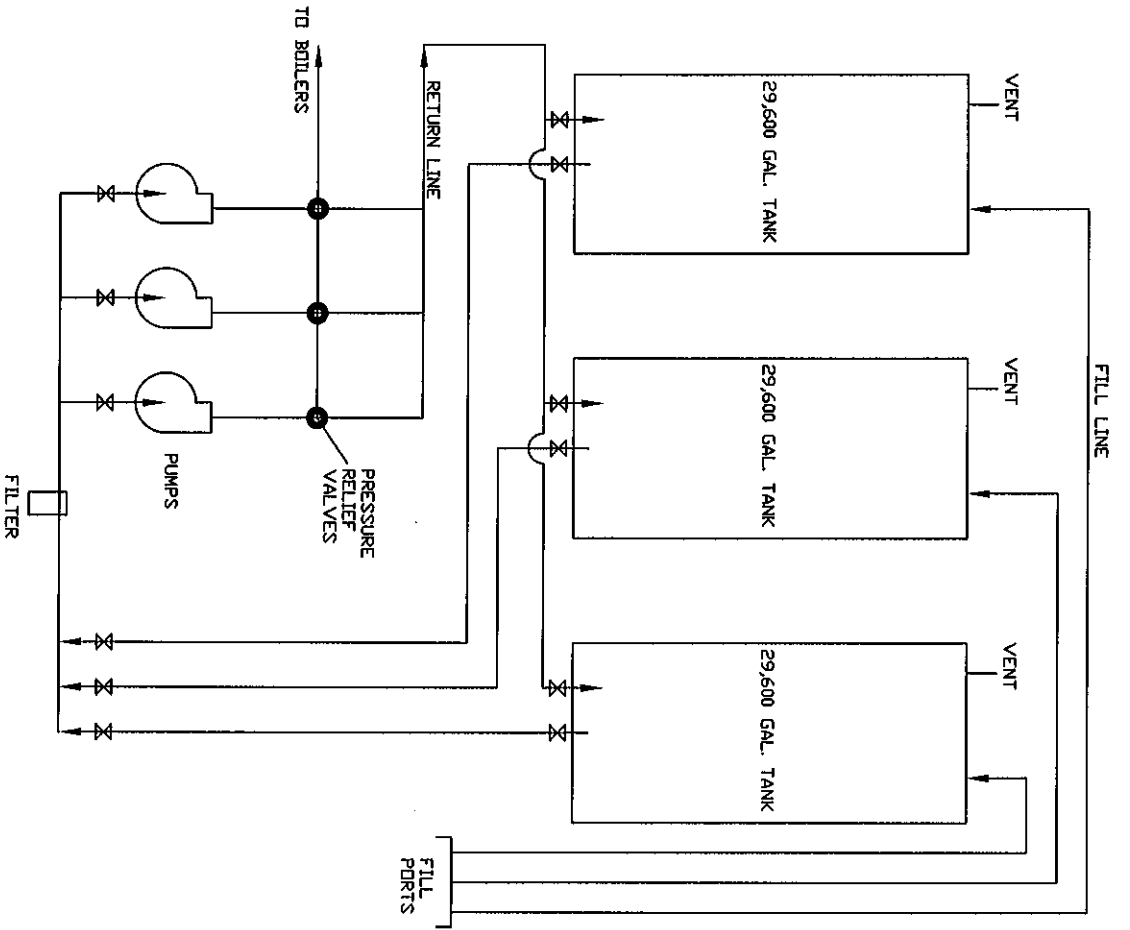


Figure 4  
Kingston Campus  
Steam Plant Tanks

FILE NAME: \_\_\_\_\_  
DRAWN BY: KJS  
APPROVED BY: \_\_\_\_\_

SCALE: NTS  
DATE: Sept 2003  
JOB NO.: \_\_\_\_\_

TRIUMPHATE  
ENVIRONMENTAL  
61 Inger Betz Road  
Somerville, MA 02143  
Providing Long Term Innovative Solutions

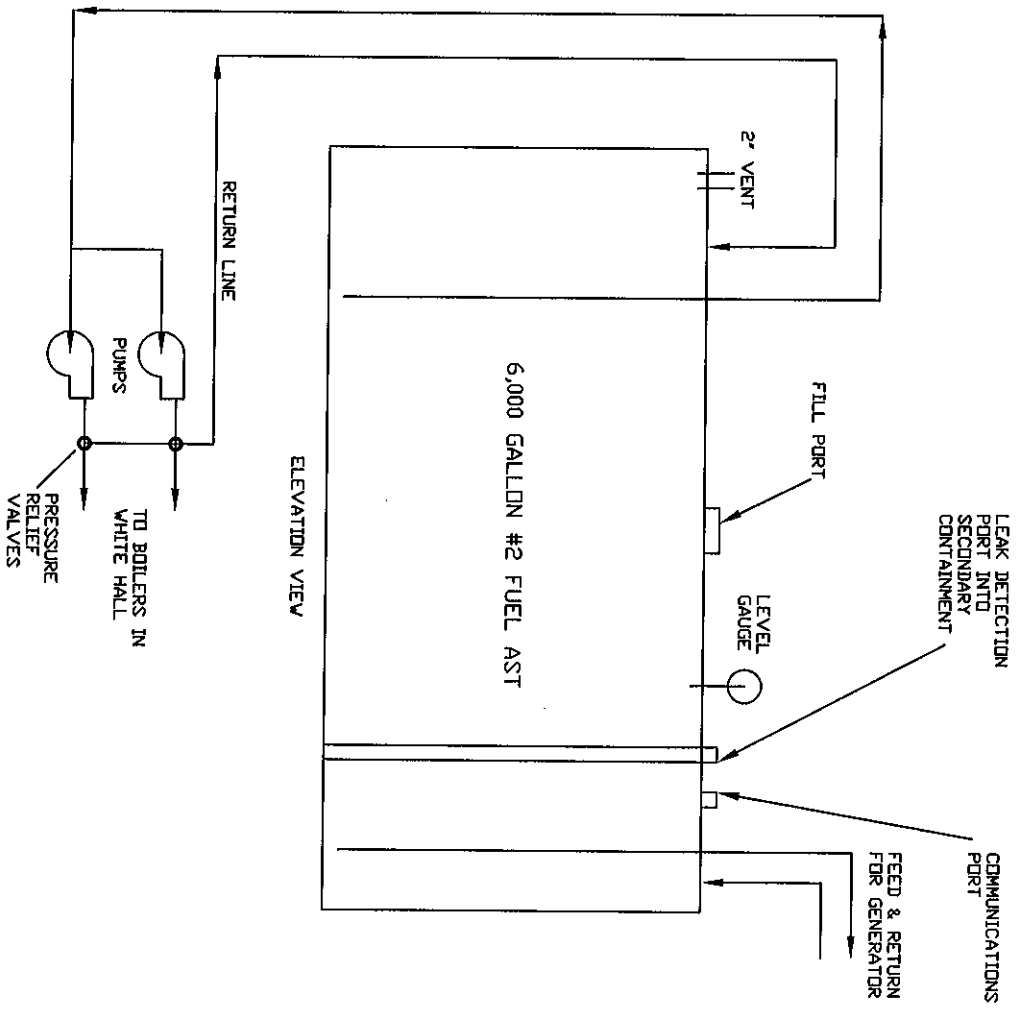
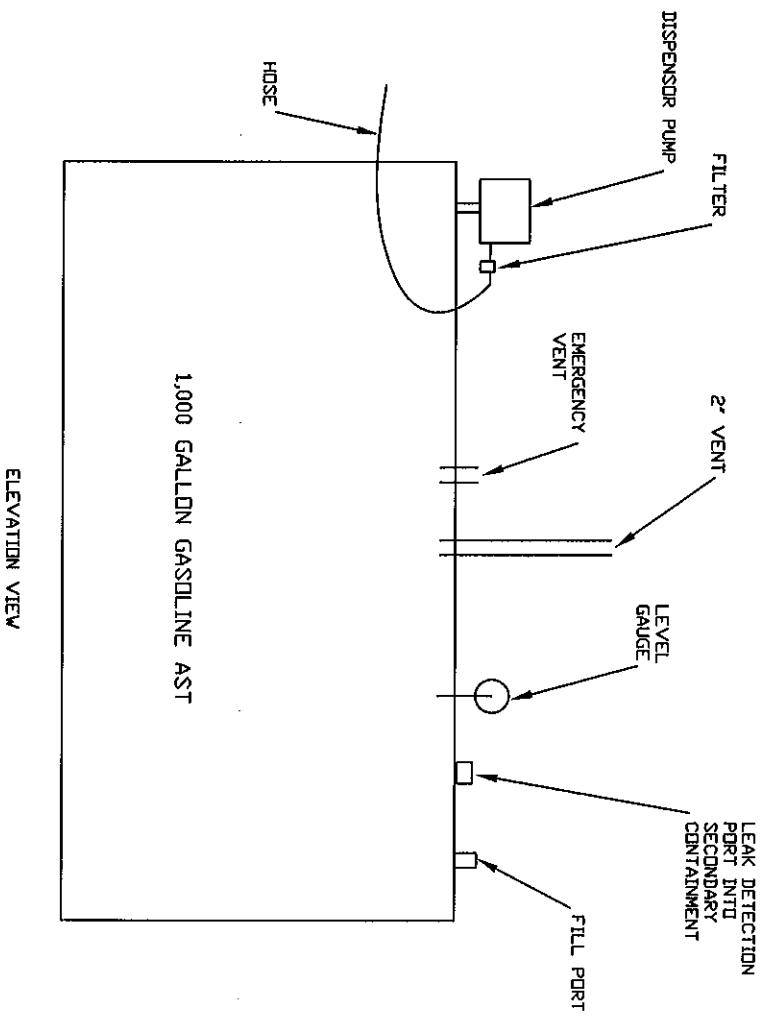


Figure 5  
 Kingston Campus  
 6,000 Gal. White Hall AST

FILE NAME: \_\_\_\_\_  
 SCALE: NTS  
 DRAWN BY: KJS  
 DATE: Sept 2003  
 APPROVED BY: \_\_\_\_\_  
 JOB NO.: \_\_\_\_\_

TRIUMVIRATE  
 ENVIRONMENTAL  
 61 Jumper Bet Road  
 Somerville, MA 02143  
 Providing Long Term Innovative Solutions



ELEVATION VIEW

Figure 6  
 W. Alton Jones Campus  
 1,000 Gal. Gasoline AST

FILE NAME \_\_\_\_\_ SCALE: NTS  
 DRAWN BY: KJS DATE: Sept 2003  
 APPROVED BY: \_\_\_\_\_ JOB NO. \_\_\_\_\_

**TRIUMPHANT ENVIRONMENTAL**  
 61 Inner Belt Road  
 Somerville, MA 02143  
*Providing Long Term Innovative Solutions*

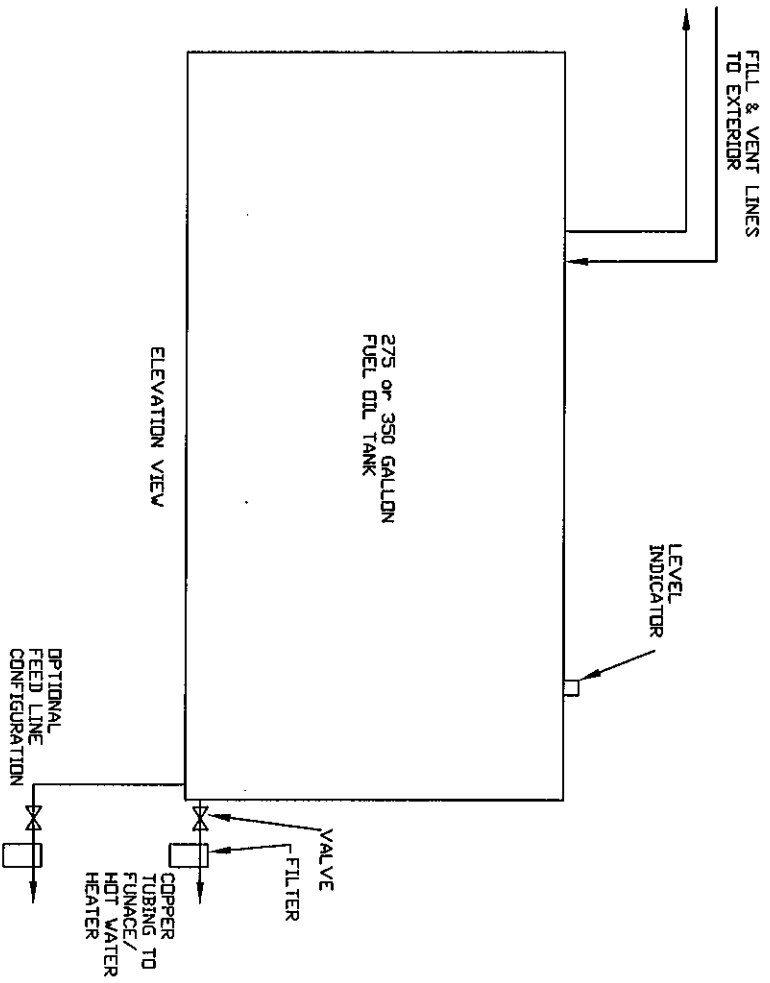


Figure 7  
275 - 350 Gal. Single Wall

FILE NAME: \_\_\_\_\_ SCALE: \_\_\_\_\_ NTS  
 DRAWN BY: KJS DATE: Sept 2003  
 APPROVED BY: \_\_\_\_\_ JOB NO: \_\_\_\_\_

**TRIUMVIRATE ENVIRONMENTAL**  
 61 Inner Belt Road  
 Somerville, MA 02143  
*Providing Long Term Innovative Solutions*

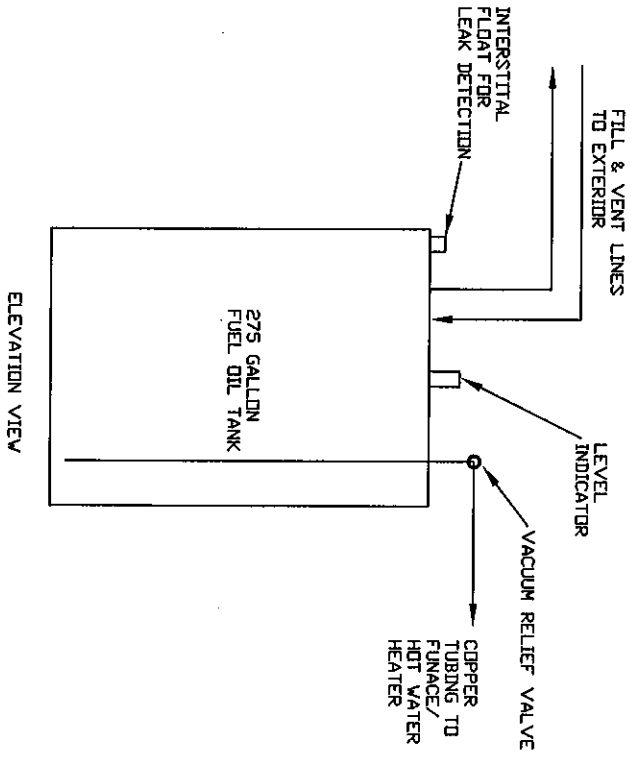


Figure 8

275 Gal. Double Wall (Roth)

FILE NAME: \_\_\_\_\_  
 DRAWN BY: KJS \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_

SCALE: NTS \_\_\_\_\_  
 DATE: Sept 2003 \_\_\_\_\_  
 JOB NO.: \_\_\_\_\_

**TRIUMPHARATE ENVIRONMENTAL**

61 Inner Belt Road  
 Somerville, MA 02143  
 Providing Long Term Innovative Solutions

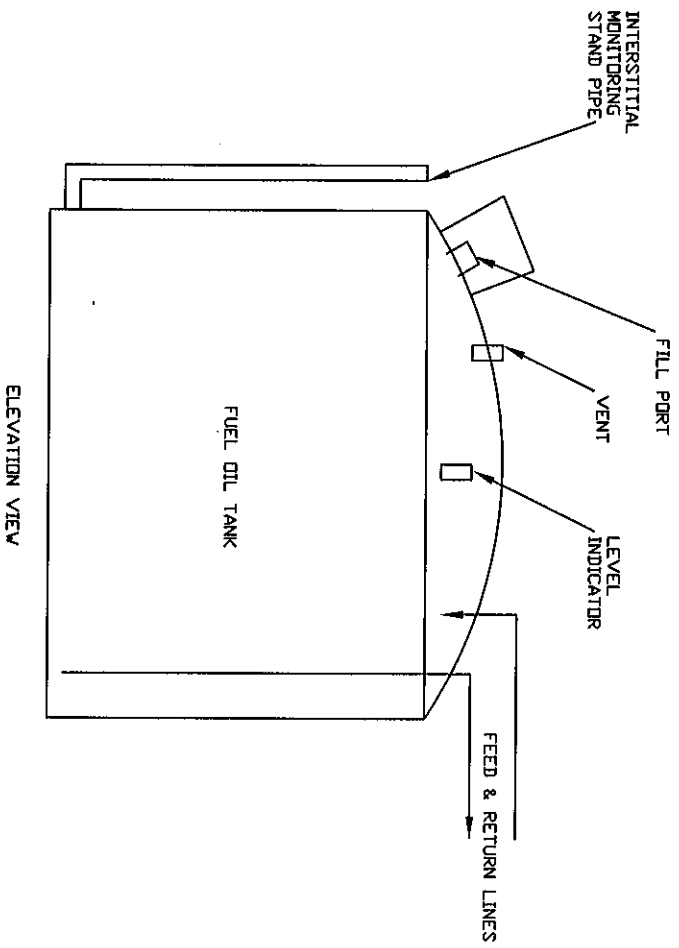


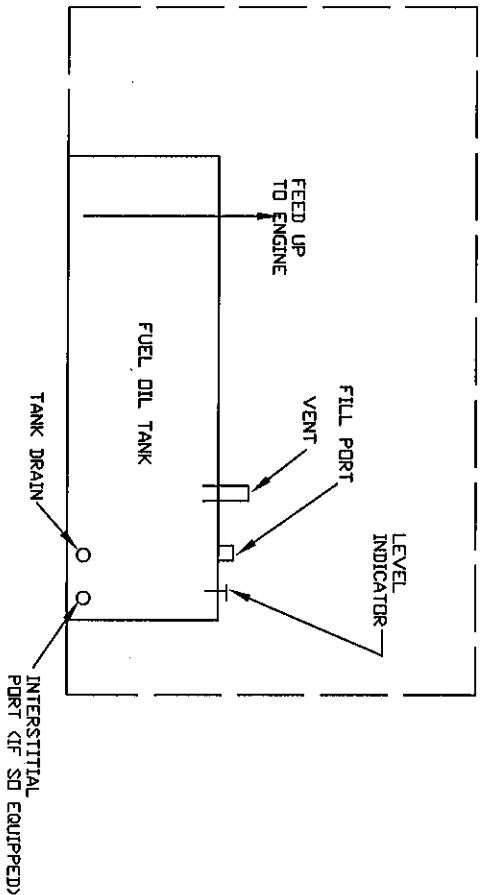
Figure 9  
375 to 1,000 Gal. Double Wall

FILE NAME: \_\_\_\_\_  
 DRAWN BY: KJS  
 SCALE: NTS  
 DATE: Sept 2003  
 APPROVED BY: \_\_\_\_\_  
 JOB NO: \_\_\_\_\_

TRIUMPHATE  
 ENVIRONMENTAL  
 61 Inner Belt Road  
 Somerville, MA 02143  
 Providing Long Term Innovative Solutions



GENERATOR SET  
HOUSING

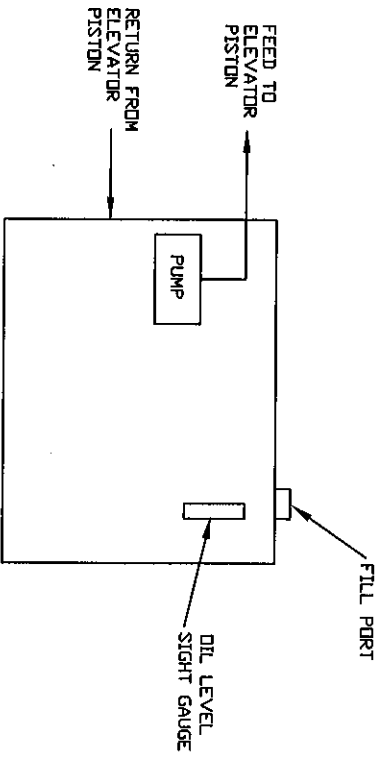


ELEVATION VIEW

Figure 10  
Generator Base Tanks

FILE NAME: \_\_\_\_\_ SCALE: NTS  
DRAWN BY: KJS DATE: Sept 2003  
APPROVED BY: \_\_\_\_\_ JOB NO.: \_\_\_\_\_

**TRIUMPHATE**  
ENVIRONMENTAL  
61 Inner Belt Road  
Somerville, MA 02143  
Providing Long Term Innovative Solutions



ELEVATION VIEW

Figure II  
Elevator Hydraulic Oil Reservoir  
TYPE E TANK

FILE NAME: \_\_\_\_\_ SCALE: NTS  
 DRAWN BY: KJS DATE: Sept 2003  
 APPROVED BY: \_\_\_\_\_ JOB NO: \_\_\_\_\_

TRIUMVIRATE  
 ENVIRONMENTAL  
 61 Inner Belt Road  
 Somerville, MA 02143  
 Providing Long Term Innovative Solutions

---

**Appendix B. Oil Storage Inventory, Spill Prediction and Impacts  
Assessment**

Appendix B-1 Kingston Campus

Appendix B-2 Narragansett Bay Campus

Appendix B-3 W. Alton Jones Campus

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
<b>Underground Oil and Gasoline Tanks are owned and operated by others at the Automotive Center near the Garage</b>								
<b>Aboveground Oil Storage Tanks</b>								
AST A-1	Adams House	275	Steel	2003	#2 Fuel Oil	Double walled	Inside	Contained in interstitial space.
AST A-2	Agronomy /Green House	275	Steel	NA	#2 Fuel Oil	Double walled	Fig. 8 Outside	Contained in interstitial space.
AST A-3	Agronomy /Field House, Plains Rd. (Bldg 370)	350	Steel	NA	#2 Fuel Oil	Double walled	Outside Fig. 8	Contained in interstitial space.
AST A-4	Central Lab Animal Facility- Peckham Farm	275	Steel	2003	#2 Fuel Oil	Double walled	Inside	Contained in interstitial space.
AST A-5	Athletics Shed (Lands & Grounds)	275	Steel	NA	#2 Fuel Oil	Double walled	Fig. 8 Outside	Contained in interstitial space.
AST A-6	Child Development Center, Lower College Rd. [KIN5]	500	Steel	NA	#2 Fuel Oil	Double walled	Outside Fig. 8	Contained in interstitial space.
AST A-7	Christopher House	275	Steel	2003	#2 Fuel Oil	Double walled	Inside Fig. 8	Contained in interstitial space.
AST A-8	East Farm Green House #2	2 @275	Steel	2002	#2 Fuel Oil	Double walled	Outside Fig. 8	Contained in interstitial space.
AST A-9	East Farm Building 61	275	Steel	2003	#2 Fuel Oil	Double walled	Inside Fig. 8	Contained in interstitial space.
AST A-10	Facilities Services, 12 W. Alumni	275	Steel	2003	#2 Fuel Oil	Double walled	Inside Fig. 8	Contained in interstitial space.

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
AST A-11	Garage Pool room	4x55	Steel	NA	Waste Oil	Spill Pallets	Inside	Contained in spill pallet.
AST A-12	Garage	8x55	Steel	NA	Lube Oil	Spill Pallets	Inside	Contained in spill pallet.
AST A-13	Garage	12x55	Steel	NA	Transmission and Lube Oils	Spill Pallets	Inside	Contained in spill pallet.
AST A-14	Garage	275	Steel	NA	Waste Oil	Poly containment basin plus concrete floor & walls.	Inside shed Fig. 7	Contained in containment basin. Note liquid level indicator located inside building where waste oil is poured into receiving funnel to prevent over fill.
AST A-15	Hart House (renamed Charles T. Schmidt)	275	Steel	2003	#2 Fuel Oil	Double walled	Inside	Periodically replace instead of integrity testing. Contained in interstitial space.
AST A-16	Haz Mat Storage	2x55	Steel	NA	Waste Oil	Grate covered floor of building	Inside	Contained within building.
AST A-17	Steam Plant, Unit #1 [KIN1]	29,600	Steel	1998	#2 Fuel Oil	Concrete lined containment	Outside	Contained within concrete containment area.
AST A-18	Steam Plant, Unit #2 [KIN2]	29,600	Steel	1998	#2 Fuel Oil	Concrete lined containment	Outside	Contained within concrete containment area.
AST A-19	Steam Plant, Unit #3 [KIN3]	29,600	Steel	1998	#2 Fuel Oil	Concrete lined containment	Outside	Contained within concrete containment area.
AST A-20	International House, Unit #1 and Unit#2 [KIN7]	2x275	Steel	2003	#2 Fuel	Double walled	Inside	Contained in interstitial space.
AST A-21	Police Station, Unit #1 and Unit #2 [KIN 8]	2x275	Steel	2003	#2 Fuel	Double walled	Inside	Contained in interstitial space.

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
AST A-22	Ruggles House	275	Steel	2003	#2 Fuel	Double walled	Inside Fig. 8	<i>The flow rates of oils average up to 2 feet per second.</i> Contained in interstitial space.
AST A-23	Safety & Risk, 177 Plains Rd.	275	Steel	2003	#2 Fuel	Double walled	Inside Fig. 8	Contained in interstitial space.
AST A-24	Tucker House	275	Steel	2003	#2 Fuel	Double walled	Inside Fig. 8	Contained in interstitial space.
AST A-25	Turf Farm Research Station [KIN6]	2x275	Steel	2001	#2 Fuel	Double walled	Outside Fig. 8	Contained in interstitial space.
AST A-26	Intentionally Blank							
AST A-27	Weldin House/ Pharmacy Annex	275	Steel	2003	#2 Fuel	Double walled	Inside Fig. 8	Contained in interstitial space.
AST A-28	White Hall, [KIN4] Also piped to the White Hall Generator	6,000	Steel within concrete vault	1998	#2 Fuel	Concrete vault	Outside	Within concrete vault. Interstitial monitoring equipment not installed. Note construction: steel, wrapped in ¼ inch poly foam, wrapped in polyethylene film, reinforced concrete. Ports on top of tank allow access to interstitial space, per manufacturer. Storm drain within 10 ft.
AST A-29	Intentionally Blank							
AST A-30	Woman's Center [KIN10]	2 @275	Steel	2002	#2 Fuel	Double walled	Outside Fig. 8	Contained in interstitial space.
AST A-31	Kirk Hall	2x55	Steel	NA	Lube oil	Spill Pallets	Inside	Contained in spill pallet

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type Map Key Location	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill  <i>The flow rates of oils average up to 2 feet per second.</i>
AST A-32	Butterfield Loading dock	150	Steel	NA	Waste cooking oil	Double Walled	Outside	Contained in interstitial space.
AST A-33	Intentionally Blank							
AST A-34	Hope Loading dock	200	Steel	NA	Waste cooking oil	Insulated	Outside	Radial direction at Loading Dock
AST A-35	Memorial Union Ram's Den Loading dock	150	Steel	NA	Waste cooking oil	Double Walled	Outside	Contained in interstitial space.
AST A-36	Intentionally Blank							
AST A-37	University Club Upper College Rd	150	Steel	NA	Waste cooking oil	Double Walled	Outside	Contained in interstitial space.
AST A-38	Library	375	Steel	1999	#2 Fuel	Double walled	Inside Fig. 8	Contained in interstitial space.
AST A-39	Lambda Chi Alpha	550	Steel	1999	#2 Fuel	Double walled	Inside Fig 8	Contained in interstitial space.
AST A-40	Tau Epsilon Phi	2@275	Steel	1999	#2 Fuel	Double walled	Inside Fig 8	Contained in interstitial space.
AST A-41	International Engr.	550	Steel	1999	#2 Fuel	Double walled	Inside Fig 8	Contained in interstitial space.
Total Oil Volume in ASTs		106,190 Gallons						
<b>Generators</b>								
Generator G-1	Barlow/Weldin Dormitory	408	Steel	2001	Diesel	None	Outside Fig. 10	Radial Direction.
Generator G-2	Butterfield Dormitory	408	Steel	2002	Diesel	None	Outside Fig. 10	Downhill, over soil.

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
Generator G-3	Butterfield Dining,	392	Steel	2002	Diesel	Double walled	Outside Fig. 10	Contained in interstitial space.
Generator G-4	Coastal Institute	300	Steel	2002	Diesel	Steel base of generator and Concrete pad. Inadequate.	Outside Fig. 10	Radial Direction. Base not sealed to concrete pad. 50 ft. to storm drain.
Generator G-5	Ryan Convocation Center	800	Steel	2002	Diesel	Double walled	Inside Fig. 10	Contained in interstitial space.
Generator G-6	Keaney Gym	275	Steel	NA	Diesel	None	Inside Fig. 10	Out door. No swales or drainage systems nearby.
Generator G-7	Hazardous Waste Storage Facility	65	Steel	NA	Diesel	None	Outside Fig. 10	Radial within gravel base adjacent to transformers.
Generator G-8	Steam Plant	350	Steel	1998	Diesel	None	Outside Fig. 10	Downhill to storm drain 25 ft. away.
G-9	Intentionally not used							
Generator G-10	Tootell Gym	200	Steel	NA	Diesel	None	Outside Fig. 10	To storm drain 30 ft away.
Generator G-11	30 Acre Well House	350	Steel	NA	Diesel	Concrete pad and concrete block wall	Outside Fig. 10	Contained within diked area.
Generators G-12	Garage (Mobile units)	3x100	Steel	NA	Diesel	Single walled None	One Inside, Two Outside	Radial Direction
Generator G-13	Boss Ice Rink	227	Steel	2002	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Generator G-14	Browning	250	Steel	2003	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Generator G-15	Fire Station	77	Steel	2006	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space



**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
Generator G-16	Fogarty	196	Steel	2006	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Generator G-17	Hope Dining	1000	Steel	2005	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Generator G-18	Garrahy & Wiley Halls	500	Steel	2005	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Generator G-19	Eddy Hall	500	Steel	2006	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Generator G-20	Library	285	Steel	2006	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Generator G-21	Tyler Hall	350	Steel	2008	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Generator G-22	Center for Biotechnology & Life Sciences	2000	Steel	2009	Diesel	Double walled	Outside Fig. 10	Contained in interstitial Space
Total Oil Volume in Generators		9,233 Gallons						
<b>Elevators</b>								
E-1	Ballentine Hall	55	Steel	2003	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-2	Barlow	160	Steel	2001	Hydraulic oil	Insufficient containment	Inside Fig. 11	Contained in room. Diked threshold.
E-3	Bliss Hall	150	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Diked threshold in 3 <sup>rd</sup> floor mechanical room.
E-4	Butterfield Dorm	160	Steel	2002	Hydraulic oil	Concrete floor and walls w/ steel threshold.	Inside Fig. 11	Contained in room. Diked threshold.
E-5	Cancer Research	105	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in room. Diked threshold.

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
E-6	Coastal Institute	200	Steel	2002	Hydraulic oil	Concrete Floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-7	Ryan Convocation Center SE quadrant	200	Steel	2002	Hydraulic oil	Concrete Floor and walls	Inside Fig. 11	Contained in room. Diked threshold
E-8	Ryan Convocation Center NE quadrant	200	Steel	2002	Hydraulic oil	Concrete Floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-9	Ryan Convocation Center SW quadrant	120	Steel	2002	Hydraulic oil	Concrete Floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-10	Crawford	75	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-11	Fine Arts #1 Theater Wing	100	Steel	NA	Hydraulic oil	Concrete floor and walls.	Inside Fig. 11	Contained in room. Diked threshold.
E-12	Fine Arts #2 Arts Wing	100	Steel	NA	Hydraulic oil	Concrete floor and walls.	Inside Fig. 11	Contained in room. Diked threshold.
E-13	URI Foundation	140	Steel	2003	Hydraulic oil	Concrete floor, stud walls, steel threshold. Insufficient.	Inside Fig. 11	Contained in room. Diked threshold.
E-14	Green Hall	135	Steel	2003	Hydraulic oil	Concrete floor and walls w/steel threshold	Inside Fig. 11	Contained in room. Diked threshold.
E-15	Swan Hall	100	Steel	NA	Hydraulic oil	None	Inside Fig. 11	Contained in room. Diked threshold.
E-16	Kelly Annex Ground floor off Rm #6	100	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-17	Kirk Building#1	150	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in room. Diked threshold.

NA – Not Available

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
E-18	Library #1	150	Steel	NA	Hydraulic oil	None	Inside Fig. 11	Contained in room. Diked threshold.
E-19	Library #2	150	Steel	NA	Hydraulic oil	None	Inside Fig. 11	Contained in room. Diked threshold.
E-20	Memorial Union Passenger	150	Steel	NA	Hydraulic oil	Concrete floor and walls of room	Inside Fig. 11	Contained in room. Diked threshold.
E-21	Memorial Union Freight	150	Steel	NA	Hydraulic oil	None	Inside Fig. 11	Contained in room. Diked threshold.
E-22	Morrill	150	Steel	NA	Hydraulic oil	None	Inside Fig. 11	Contained in room. Diked threshold.
E-23	Multicultural	100	Steel	NA	Hydraulic oil	Concrete floor and walls.	Inside Fig. 11	Contained in room. Diked threshold.
E-24	Potter Clinic	100	Steel	NA	Hydraulic oil	Concrete floor and walls.	Inside Fig. 11	Contained in room. Diked threshold.
E-25	Quinn	100	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-26	Roosevelt	250	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-27	Tyler	80	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in room. Diked threshold.
E-28	Weldin	150	Steel	2001	Hydraulic oil	Insufficient containment volume.	Inside Fig. 11	Contained in room. Diked threshold.
E-29	White #1	150	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-30	White #2	150	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-31	Alumni Center	60	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
E-32	Browning Hall	155	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-33	Hope Dining – Person	79	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-34	Hope Dining- Freight	123	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-35	Marrow Hall	89	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-36	Garrahy Hall	140	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-37	Wiley Hall – 1	140	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-38	Wiley Hall – 2	140	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-39	Eddy Hall – 1	140	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-40	Eddy Hall – 2	140	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-41	Peck Hall	89	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-42	Rodman Hall	100	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-43	Surge Building	68	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-44	Center for Biotechnology & Life Sciences	230	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-45	Center for Biotechnology & Life Sciences	345	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
E-46	International Engineering	150	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.

*The flow rates of oils average up to 2 feet per second.*

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type Map Key Location	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
E-47	Lippitt Hall	165	Steel	NA	Hydraulic oil	Concrete floor and walls	Inside Fig. 11	Contained in building. Storage tank not near elevator pit.
Total Oil Volume in Elevators		6,433 Gallons						
<b>Transformers</b>								
T-1	Main Crib Transformer #1	1720	Steel	NA	Mineral	Pad mounted Soil and gravel	Outside	Radial direction, gravel/soil
T-2	Main Crib Transformer #2	1670	Steel	NA	Mineral	Pad mounted Soil and gravel	Outside	Radial direction, gravel/soil
T-3	Surge Building	>55	Steel	NA	Mineral	Pad mounted Soil	Outside	Soil & asphalt parking area.
T-4	Surge Building	>55	Steel	NA	Mineral	Pad mounted Soil	Outside	Soil & asphalt parking area.
T-5	Carlotti (Administration Building)	410	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Contained within concrete curb and gravel
T-6	Davis Hall	119	Steel	NA	Mineral	Pad mounted Soil and gravel	Outside	Radial direction, soil/gravel
T-7	Intentionally Blank							
T-8	Bliss Hall	200	Steel	NA	Mineral	Pad mounted Concrete and asphalt	Outside	Concrete/asphalt
T-9	Browning	>55	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Contained within concrete curb and gravel
T-10	Coastal Institute	200	Steel	NA	Mineral	Pad mounted Soil. Insufficient	Outside	Partially contained by soil. Storm drain within 20 ft.
T-11	Gilbreth (northeast corner)	200	Steel	NA	Mineral	Pad mounted Soil	Outside	soil/sidewalk

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
T-12	Kirk Auditorium (next to generator)	163	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction, soil
T-13	Library	415	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction, soil
T-14	Library	> 55	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction, soil
T-15	Lippitt Hall	345	Steel	NA	Mineral	Pad mounted Soil. Insufficient	Outside	Soil. Storm drain within 20 ft.
T-16	Gilbreth For former Research Oven	440	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Within concrete curb and gravel.
T-17	Theta Delta Chi	>55	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction, Soil
T-18	Bressler Hall	507	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Within concrete and gravel.
T-19	Edwards Hall	200	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction, Soil
T-20	Fogarty Centrifugal Chillers	200	Steel	NA	Mineral	Pad mounted	Outside	Radial direction; soil.
T-21	Green Hall	200	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Contained within concrete curb and gravel.
T-22	Independence Hall	93	Steel	NA	Mineral	Concrete floor and walls w/concrete threshold	Inside	Contained within room.
T-23	Pastore Hall	170	Steel	NA	Mineral	Pad mounted None	Outside	To storm drain within 25 ft.

NA – Not Available

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
T-24	Pastore Addition	126	Steel	NA	Mineral	Pad mounted Wood curb and gravel	Outside	Within wood curb and gravel
T-25	President's House	200	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction, Soil
T-26	Quinn Hall Steam Vault (pumps)	100	Steel	NA	Mineral	Pad mounted None	Outside	To storm drain in lawn within 20 ft.
T-27	Ballentine Hall (north side)	200	Steel	NA	Mineral	Pad mounted Concrete dike wall and gravel.	Outside	Within concrete dike wall and gravel.
T-28	Cancer Research (CPRC)	200	Steel	NA	Mineral	Pad mounted Soil	Outside	Soil
T-29	Crawford Hall (located next to Lippitt)	200	Steel	NA	Mineral	Pad mounted Concrete dike wall and gravel	Outside	Within concrete dike wall and gravel.
T-30	Kelly Hall Annex	200	Steel	NA	Mineral	Pad mounted Surrounding soil	Outside	Radial direction; soil.
T-31	University Club	110	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Within concrete curb and gravel.
T-32	Woodward Hall	200	Steel	NA	Mineral	Pad mounted None	Outside	Along concrete to storm drain within 50 ft.
T-33	Fine Arts- II	260	Steel	NA	Mineral	Pad mounted Gravel	Outside	Radial direction; gravel.
T-34	Greenhouse	200	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction, gravel; Note that a slight leak from the transformer was observed.
T-35	Rodman Hall (east side)	200	Steel	NA	Mineral	Pad mounted None	Outside	To soil and concrete sidewalk to storm drain in stair well.

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
T-36	Tyler (north side)	200	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction; soil.
T-37	Tyler (south side)	125	Steel	NA	Mineral	Pad mounted None	Outside	Over concrete and asphalt to storm drain within 90 ft.
T-38	Water Tower	200	Steel	NA	Mineral	Pad mounted Gravel	Outside	Radial direction; gravel.
T-39	White Hall	200	Steel	NA	Mineral	Pad mounted Soil and asphalt roadway	Outside	To asphalt roadway.
T-40	Roger Williams Dining	263	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Within concrete curb and gravel.
T-41	Potter Infirmary	160	Steel	NA	Mineral	Pad mounted None	Outside	Along soil to storm drain within 80 ft.
T-42	Kearney/Mackal Gym	200	Steel	NA	Mineral	Pad mounted Soil & asphalt roadway	Outside	Along roadway. No storm drain nearby.
T-43	Tootell Gym	200	Steel	NA	Mineral	Pad mounted None	Outside	Radial direction, drain 50 ft. away.
T-44	Butterfield Hall & Dining	240	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Within concrete curb and gravel.
T-45	Barlow Hall	444	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Within concrete curb and gravel.
T-46	Weldin Hall	352	Steel	NA	Mineral	Pad mounted Concrete curb and gravel	Outside	Within concrete curb and gravel.
T-47	Graduate Apartments A	100	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction; soil.

NA - Not Available



**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
T-48	Graduate Apartments B & C	100	Steel	NA	Mineral	Pad mounted Soil	Outside	<i>The flow rates of oils average up to 2 feet per second.</i> Radial direction; soil.
T-49	Graduate Apartments D	100	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction; soil.
T-50	Graduate Apartments E	100	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction; soil.
T-51	Graduate Apartments F	100	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction; soil.
T-52	Graduate Apartments G	100	Steel	NA	Mineral	Pad mounted Soil	Outside	Radial direction; soil.
T-53	30 Acre Pumping Station	200	Steel	NA	Mineral	Pad mounted Gravel	Outside	Radial direction; gravel. <b>To be replaced 4/03</b>
T-54	30 Acre Pumping Station Switch	> 55	Steel	NA	Mineral	Concrete floor and block walls	Outside	Contained within diked area.
T-55	Substation #3	> 55	Steel	2002	Mineral	Concrete pad and gravel	Outside	Radial; contained within gravel.
T-56	Boss Ice Rink	> 55	Steel	2002	Mineral	Concrete pad and gravel	Outside	Radial; contained within gravel.
T-57	Intentionally not used							
T-58	Human Resources	200	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-59	Morrill	>55	Steel	NA	Mineral	Concrete pad Soil	Outside	To soil and asphalt parking area..
T-60	Hope Dining	480	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-61	Peck Hall	240	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.

**University of Rhode Island (Kingston)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
T-62	Marrow Hall	240	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-63	30 Acre Pond	55	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-64	Elephant Walk & Peck	240	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-65	Parking Lot Plains & Flagg	180	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-66	Garrany Hall	503	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-67	Wiley Hall	472	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-68	Eddy Hall	428	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-69	Substation #3 Flagg Road	1320	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-70	Center for Biotechnology & Life Sciences	500	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
T-71	Center for Biotechnology & Life Sciences	1288	Steel	NA	Mineral	Concrete pad Soil	Outside	Contained within soil.
Total Oil Volume in Transformers		19,673 Gallons						

*The flow rates of oils average up to 2 feet per second.*

**University of Rhode Island (Narragansett Bay)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
<b>Underground Storage Tanks: None</b>								
<b>Aboveground Oil Storage Tanks</b>								
A-1	Water Pumping Station Generator [GSO-1]	1,000	Steel	1997	Diesel	Double Walled	Outside Fig. 9	Contained in interstitial space.
Drum A-2	Building 80 Small Boat	55	Steel	NA	Lube Oil	Polyethylene containment basin.	Inside	Contained in secondary containment basin.
Drum A-3	Maintenance	55	Steel	NA	Waste oil	Spill Pallet	Inside	Contained in spill pallet.
Drum A-4	Maintenance	2x55	Steel	NA	Lube oil	Spill Pallet	Inside	Contained in spill pallet.
Drum A-5	Sea Container (Ballard)	4x55	Steel	2003	Hydraulic Oil for undersea gear	Spill Pallet	Inside	Contained in spill pallet.
Total Volume in ASTS		1440 gallons						
<b>Generators</b>								
Generator G-1	Coastal Institute [GSO-1]	265	Steel	2001	Diesel	Double Walled	Outside Fig. 10	Contained in interstitial space.

**University of Rhode Island (Narragansett Bay)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside Figure	Direction and Rate of Flow of Potential Spill
Generator G-2	Aquaculture Bldg. [GSO-2]	693	Steel	2003	Diesel	Double Walled	Outside Fig. 10	<i>The flow rates of oils average up to 2 feet per second.</i> Contained in interstitial space.
Generator G-3	Sea Water Pump House	250	Steel	NA	Diesel	Steel containment basin	Outside Fig. 10	Contained in secondary containment basin.
Generator G-4	Ocean Science & Exploration Center	649	Steel	2009	Diesel	Double Walled	Outside Fig. 10	Contained in interstitial space.
Total Volume in Generators		1857 gallons						
<b>Elevators</b>								
E-1	Horn Pent house	100	Steel	NA	Hydraulic Fluid	Concrete floor and walls w/ diked threshold.	Inside Fig. 11	Contained in room.
E-2	Intentionally Blank							
E-3	Center for Atmospheric Chemistry Studies (CACS)	150	Steel	NA	Hydraulic Fluid	Concrete floor and walls w/ diked threshold.	Inside Fig. 11	Contained in room.

**University of Rhode Island (Narragansett Bay)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside	Direction and Rate of Flow of Potential Spill
E-4	Watkins Lab Room 110	75	Steel	NA	Hydraulic Fluid	Concrete floor and walls of building	Inside Fig. 11	<i>The flow rates of oils average up to 2 feet per second.</i> Non-Directional. No floor drains nearby.
E-5	Coastal Institute	150	Steel	NA	Hydraulic Fluid	Concrete floor and walls w/ diked threshold.	Inside Fig. 11	Contained in room.
E-6	Ocean Science & Exploration Center	120	Steel	NA	Hydraulic Fluid	Concrete floor and walls w/ diked threshold.	Inside Fig. 11	Contained in room.
Total Volume in Elevators		595 gal						

**Transformers: Owned and Maintained by Others, See Drawing Figure 2 for location**

**University of Rhode Island (W. Alton Jones)**  
**OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside	Figure	Direction and Rate of Flow of Potential Spill
<b>Aboveground Storage Tanks</b>									
AST A-1	Whispering Pines	1,000	Steel	1998	#2 Fuel	Double walled	Outside	Fig. 9	Contained in interstitial space. Note storm water trench drain nearby.
AST A-2	Main Office	275	Steel	2003	#2 Fuel	Double walled	Inside	Fig. 8	Contained in interstitial space.
AST A-3	Blacksmith House	275	Steel	2003	#2 Fuel	Double walled	Inside	Fig. 8	Contained in interstitial space.
AST A-4	Whispering Pines Office	600	Steel	1998	#2 Fuel	Double walled	Outside	Fig. 9	Contained in interstitial space.
AST A-5	Environmental Education Center	2x275	Steel	2003	#2 Fuel	Double walled	Inside	Fig. 8	Contained in interstitial space.
AST A-6	Herdsmen House	275	Steel	2003	#2 Fuel	Double walled	Inside	Fig. 8	Contained in interstitial space.
AST A-7	Mouse House	600	Steel	1998	#2 Fuel	Double Walled	Outside	Fig. 9	Contained in interstitial space.
AST A-8	Main Office	1,000	Steel	1998	Gasoline	Double Walled Steel inside concrete	Outside		Contained in interstitial space. Inspect interstitial space manually, twice per year
Drum A-9	Machinery Barn	55	Steel	NA	Hydraulic oil	Spill pallet	Inside		Contained in spill pallet

*The flow rates of oils average up to 2 feet per second.*

**University of Rhode Island (W. Alton Jones)  
OIL STORAGE & EQUIPMENT**

Type	Location	Size (gal)	Tank Material	Install Date	Contents	Means of Secondary Containment / Spill Prevention	Outside / Inside	Direction and Rate of Flow of Potential Spill
Map Key Location							Figure	<i>The flow rates of oils average up to 2 feet per second.</i>
Drum A-10	Machinery Barn	2x55	Steel	NA	Cooking oil	Spill pallet	Inside	Contained in spill pallet
Drum A-11	Machinery Barn	55	Steel	NA	Diesel	Spill pallet	Inside	Contained in spill pallet
Drum A-12	Machinery Barn	55	Steel	NA	Lube Oil	Spill Pallet	Inside	Contained in spill pallet
AST Total	Volume	4850						
<b>Generators: None</b>								
<b>Elevators</b>								
E-1	Sycamore	86 gal	Steel	NA	Hydraulic Fluid	Concrete floor and walls w/diked threshold	Inside Fig. 11	Contained in room.
<b>Transformers</b>								
T-1	Sycamore	>55	Steel	1992	Mineral oil	Concrete Pad Soil	Outside	To soil

---

## **Appendix C. Oil Tank Integrity Testing and Replacement Schedule**



UNIVERSITY OF RHODE ISLAND OIL TANK INTEGRITY TEST OR REPLACEMENT SCHEDULE							
Number Of Tanks	Location	Size (gal)	Tank Material	Mfg. Date	Contents	Outside/ Inside	Integrity Testing or Replacement Year
<u>Aboveground Storage Tanks/Containers</u>							
<i>Kingston Campus</i>							
3	Steam Plant	29,600	Steel		# 2 fuel	Outside	Integrity Test at least once every 10 years. Due in 2018.
<i>Narragansett Bay Campus</i>							
None							
<i>W. Alton Jones Campus</i>							
None							

Notes:

1. The integrity test date for the steam plant tanks will be selected to avoid taking the tanks out of service during the school year and winter.
2. All double walled tanks will have the interstitial space monitored twice per calendar year instead of integrity testing.

---

## **Appendix D. Inspection Checklist**



---

## **Appendix E. Fuel Delivery Procedure**



University of Rhode Island

## STANDARD OPERATING PROCEDURE FOR FUEL DELIVERY OR REMOVAL OF WASTE OIL OPERATIONS [LOADING/UNLOADING] AT ALL URI CAMPUSES

**Note:** Additional restrictions apply to fueling or removing petroleum products from vessels docked at the Narragansett Bay Campus. Those operations must be pre-approved by the URI Marine Office.

**SUBJECT:** Oil Spill Prevention during fuel delivery or removal of waste oil      **Number:** SPCC-1

---

**POLICY:** This policy details the proper loading/unloading procedures for deliveries and removal of petroleum products at all University of Rhode Island campuses.

---

**APPLICABILITY:** This policy applies to all tank truck operations.

---

**PURPOSE:** Federal and State regulations specify that institutions must establish procedures and policies to prevent the discharge of oil and oil products into or upon navigable waters of the United States. The University of Rhode is committed to compliance with these regulations. All departments/personnel requesting services to provide delivery of fuel or removal of waste oil from any University of Rhode Island campus must notify the vendors and tank truck drivers of these requirements. Failure to comply with the Spill Prevention Control and Countermeasures Plan (SPCC) may result in civil, criminal, or administrative penalties for the University.

---

### **PROCEDURES:**

Each delivery contractor must comply with all applicable U.S. Department of Transportation (49 CFR 177.834 and 177.837)—and Rhode Island Department of Environmental Management Regulations. To prevent the release of substances hazardous to the environment the following are the required actions that trucks delivering fuel or removing waste oil must take during loading or unloading operations at any University of Rhode Island Campus.

#### **General:**

- Exercise caution when maneuvering to avoid damage to University property.
- No smoking during fuel delivery or removal of waste oil.
- Supply a means of communication to report emergencies, e.g., radio or cell phone.
- Supply spill clean up materials such as absorbent pads and spill containment materials on each delivery truck.
- If leaks are detected during fuel delivery or removal of waste oil, the loading/unloading operation must cease immediately. **Report any leaks or other problems to Campus Police and Security at 401-874-2121.**

STANDARD OPERATING PROCEDURE FOR FUEL DELIVERY or REMOVAL OF WASTE OIL  
OPERATIONS [LOADING/UNLOADING] at ALL URI CAMPUSES (Cont.)

**Specific Procedures:**

- Park delivery/removal truck to the side of or off the roadway as much as possible to avoid blocking traffic.
- Set truck hand brake or set wheel chocks to prevent truck movement during delivery.
- Review the Delivery Ticket or contact URI personnel to confirm which tank(s) is to receive the delivery.
- Inspect tank, fitting, and liquid level prior to filling or removing petroleum products. Verify, via tank gauge, the tank(s) have sufficient empty capacity to accept the delivery volume.
- Connect hose to fill line. Prior to loading/unloading fuel place an empty 5-gallon bucket or other appropriate drip pan or absorbent pad or boom under the connection point to catch any fuel that may spill during the loading/unloading operation.
- Open appropriate valve(s) to direct flow into tank to be filled.
- Initiate fuel transfer and attend truck at all times during transfer. Verify that the appropriate tank is being filled by observing tank gauge(s). Maintain unobstructed view of hose, valves and tank gauge(s) during entire transfer and observe for leaks.
- Do not fill tanks above high level.

After transfer is complete, close valves and drain loading/unloading line to storage tank when loading/unloading is complete. Verify that all drain lines are closed before disconnecting loading/unloading lines.

Disconnect hose and remove drip pan. Inspect vehicle before departure to be sure all loading/unloading lines have been disconnected and vent valves closed. Examine all truck outlets for leakage and tighten or repair if necessary to prevent leakage during transit. **Report any leaks or other problems to Campus Police and Security at 401-874-2121.**

**Signatures:**

Authorized Facility Representative:

\_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

Last Revised: 3/2/04

## FUEL SYSTEMS

### 1. Taking on Fuel Oil

- a. Ensure there is sufficient room in the fuel tank to be filled. The standard 7,500 gallon load will increase tank level 8'8". Do not fill above 30' without authorization from Plant Manager.
- b. In fuel receipt log, record date, tank start level and tank to be filled.
- c. Have tanker pull to loading dock.
- d. Chock wheels of truck.
- e. Connect supply hose to tanker pump outlet.
- f. Connect supply hose to fuel port for tank to be filled. Use wire around the fitting locking tabs to prevent the fitting from coming off.
- g. Place drip pans under pump and hose fittings.
- h. OPEN the fuel port isolation valve.
- i. When driver is ready, start transfer pump on tanker at low rpm and begin filling the tank. Monitor local level indication to ensure tank is filling and that there are no leaks.
- j. If filling and no leaks noted, have driver increase rpm and pump remainder of load. Closely monitor this evolution.
- k. When filling is complete, disconnect supply hose from tanker pump outlet.
- l. SHUT fuel port isolation valve and disconnect supply hose from fuel port. Install cap on supply hose and fuel port fitting.
- m. In fuel oil receipt log, record new tank level, bill of laden number and amount of fuel oil received.
- n. Assist tanker exiting the site to prevent problems with cars and pedestrians.

### 2. Shifting Fuel Oil Tanks

- a. Open the supply valve of the oncoming fuel tank. Note pump suction pressure increases.
- b. Open the return valve for the oncoming fuel oil tank.
- c. Shut the supply valve of the off going fuel oil tank.
- d. Shut the return valve of the off going fuel oil tank. Note system pressures are stable.
- e. Make entry in the control room log as to which shifted from and to.

---

## **Appendix F. Rhode Island Oil Pollution Control Regulations**

These regulations are also available on the Rhode Island Department of Environmental Management Website:

<http://www.state.ri.us/DEM/pubs/regs/REGS/compinsp/oilpollu.pdf>



---

## **Appendix G. Determination of Substantial Harm**

A Separate Determination was prepared for each Campus

**Attachment F-II – Certification of the Applicability of the Substantial Harm  
Criteria**

Facility Name: University of Rhode Island  
Facility Address: Route 138, Kingstown, RI 02881

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes \_\_\_ No X

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 X

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 to this appendix or a comparable formula<sup>1</sup>) 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 to this part, section 13, for availability) and the applicable Area Contingency Plan.

Yes \_\_\_ No X

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-III to this appendix or a comparable formula<sup>1</sup>) such that a discharge from the facility would shut down a public drinking water intake<sup>2</sup>?

<sup>1</sup> If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

<sup>2</sup> For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

Yes \_\_\_ No X

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 discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes \_\_\_ No X

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, accurate, and complete.

---

Signature

---

Name (please type or print)

---

Title

---

Date

## Attachment F-II – Certification of the Applicability of the Substantial Harm Criteria

Facility Name: University of Rhode Island

Facility Address: South Ferry Road, Narragansett, RI 02882

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes \_\_\_ No X

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 X

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 to this appendix or a comparable formula<sup>1</sup>) 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 to this part, section 13, for availability) and the applicable Area Contingency Plan.

Yes \_\_\_ No X

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-III to this appendix or a comparable formula<sup>1</sup>) such that a discharge from the facility would shut down a public drinking water intake<sup>2</sup>?

<sup>1</sup> If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

<sup>2</sup> For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

Yes \_\_\_ No X

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 discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes \_\_\_ No X

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, accurate, and complete.

---

Signature

---

Name (please type or print)

---

Title

---

Date

## Attachment F-II – Certification of the Applicability of the Substantial Harm Criteria

Facility Name: University of Rhode Island

Facility Address: 401 Victory Highway, West Greenwich, RI 02816

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes \_\_\_ No X

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 X

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 to this appendix or a comparable formula<sup>1</sup>) 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 to this part, section 13, for availability) and the applicable Area Contingency Plan.

Yes \_\_\_ No X

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-III to this appendix or a comparable formula<sup>1</sup>) such that a discharge from the facility would shut down a public drinking water intake<sup>2</sup>?

<sup>1</sup> If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

<sup>2</sup> For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

Yes \_\_\_ No X

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 discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes \_\_\_ No X

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, accurate, and complete.

---

Signature

---

Name (please type or print)

---

Title

---

Date