SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN
FOR
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

Philip E. Marucci Center for Blueberry and Cranberry Research and Extension
Chatsworth, New Jersey

Original Date of Plan: September 2001
Date of Last Plan Amendment/P.E. Certification: June 2003
Date of Last Plan Review: May 2008

CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR part 112, and have visited this facility, attest that this SPCC Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and that procedures for inspection and testing have been established, and that the plan is adequate for this facility.

Engineer: J. Robert Gallagher, P.E.
Registration Number: GE32321
State: New Jersey
Signature: ____________________________
Date: ______________________________
In accordance with the amendments to the Oil Pollution Prevention Act promulgated under the authority of the Clean Water Act, effective August 16, 2002, and codified under 40 CFR 112, a review and evaluation of this Spill Prevention Control and Countermeasure (SPCC) Plan has been conducted. This plan must be reviewed and updated every five years for the date of the implementation of this plan (February 16, 2003). As a result of this review and evaluation, Rutgers, The State University of New Jersey (Rutgers) will amend the SPCC Plan within six months of the review (August 18, 2003) to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of review. Any amendment to the SPCC Plan shall be certified by a Professional Engineer within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility’s potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.

<table>
<thead>
<tr>
<th>Review Dates</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
</tbody>
</table>

**MANAGEMENT APPROVAL**

Rutgers is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains the highest standards for spill prevention control and countermeasures through regular review, updating, and implementation of this SPCC Plan for the Philip E. Marucci Center for Blueberry and Cranberry Research and Extension.

Authorized
Facility Representative: ______________________________

Signature: ______________________________

Title: ______________________________

Department: ______________________________
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1. FACILITY OWNER AND OPERATOR

1.1. Facility Owner and Address

Rutgers, The State University of New Jersey
Old Queens
83 Somerset Street
New Brunswick, NJ 08901-1281

1.2. Facility Operator, Address and Telephone

Philip E. Marucci Center for Blueberry and Cranberry Research and Extension
Rutgers, The State University of New Jersey
125A Lake Oswego Road
Chatsworth, New Jersey 08019
(609) 726-1590

2. FACILITY CONTACT(S)

Table 1 Facility Contacts

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rich DeStefano</td>
<td>Research Farm Supervisor</td>
<td>(609) 726-1590</td>
</tr>
<tr>
<td>REHS Representative</td>
<td>Environmental Health and Safety Office</td>
<td>(732) 445-2550</td>
</tr>
</tbody>
</table>

3. FACILITY DESCRIPTION

3.1. Facility Operations

112.7(a)(3) Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each container. The facility diagram must include completely buried tanks that are otherwise exempted from the requirements of this part under 112.7(d)(4). The facility diagram must also include all transfer stations and connecting pipes.

The Philip E. Marucci Center for Blueberry and Cranberry Research and Extension (facility) is a substation of the New Jersey Agricultural Experiment Station of Rutgers University Located in Chatsworth, New Jersey (Figure No. 1). The Center generates and disseminates research information directly applicable to the production of high-quality blueberries and cranberries and develops new cultivars for industry. The center was first established at Whitesbog in 1918 and moved to Chatsworth in 1962.
There are a total of fifteen areas at the facility where petroleum products are stored. Of the fifteen areas, fourteen are aboveground storage tanks (ASTs), and one is the drum storage area in the maintenance shop (Figure 2).

There are various petroleum products stored in the ASTs including No. 2 fuel oil, diesel fuel and unleaded gasoline. The No. 2 fuel oil is used in oil-fired boilers to heat the buildings at the site. Diesel fuel is used to power motors for irrigation and to fuel vehicles and equipment. The unleaded gasoline is used to fuel vehicles and equipment. The UST stores No. 2 fuel oil for use in the oil-fired burner for the house at the facility.

These petroleum products are received by a common carrier via tanker truck. Typically, product is delivered by a 2,800-gallon tanker truck. The tanker truck pumps product into storage tanks at a rate of approximately 65 gallons per minute.

The facility is generally open from 7:00 to 5:00, Monday through Friday. Rutgers personnel at the facility and at Rutgers Environmental Health and Safety can be reached at all times to respond to an incident regarding product storage areas.

3.2. Facility Oil Storage

112.7(a)(3)(i) The type of oil in each container and its storage capacity

The following table summarizes the location, size and type of oil storage areas.

<table>
<thead>
<tr>
<th>Tank No.</th>
<th>Building Name/Tank Name</th>
<th>Volume (Gallons)</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboveground Storage Tanks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Irrigation Motor Shed #1</td>
<td>550</td>
<td>Diesel fuel</td>
</tr>
<tr>
<td>2</td>
<td>Maintenance Shop (Bldg 6175)</td>
<td>1,500</td>
<td>No. 2 fuel oil</td>
</tr>
<tr>
<td>3</td>
<td>USDA Greenhouse</td>
<td>1,000</td>
<td>No. 2 fuel oil</td>
</tr>
<tr>
<td>4</td>
<td>USDA Greenhouse</td>
<td>1,000</td>
<td>Diesel fuel</td>
</tr>
<tr>
<td>6</td>
<td>Irrigation Motor Shed #2</td>
<td>550</td>
<td>Diesel fuel</td>
</tr>
<tr>
<td>7</td>
<td>Office Barn (Bldg 6355)</td>
<td>2,500</td>
<td>No. 2 fuel oil</td>
</tr>
<tr>
<td>9</td>
<td>White Elephant</td>
<td>550</td>
<td>No. 2 fuel oil</td>
</tr>
<tr>
<td>10</td>
<td>East/West Greenhouse</td>
<td>2,000</td>
<td>No. 2 fuel oil</td>
</tr>
<tr>
<td>11</td>
<td>Hot House</td>
<td>550</td>
<td>No. 2 fuel oil</td>
</tr>
<tr>
<td>12</td>
<td>3-Greenhouses (Bldg 6356)</td>
<td>2,500</td>
<td>No. 2 fuel oil</td>
</tr>
<tr>
<td>Tank No.</td>
<td>Building Name/Tank Name</td>
<td>Volume (Gallons)</td>
<td>Contents</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------</td>
<td>------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Aboveground Storage Tanks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>House (Bldg 6282)</td>
<td>275</td>
<td>No. 2 Fuel Oil</td>
</tr>
<tr>
<td>13</td>
<td>Peters’ Greenhouse</td>
<td>1,000</td>
<td>No. 2 fuel oil</td>
</tr>
<tr>
<td>14</td>
<td>Irrigation Motor Shed</td>
<td>550</td>
<td>Diesel fuel</td>
</tr>
<tr>
<td>15</td>
<td>Greenhouse (Bldg 6256)</td>
<td>1,000</td>
<td>Unleaded gasoline</td>
</tr>
<tr>
<td></td>
<td><strong>Drums/Containers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not Applicable</td>
<td>&lt;400</td>
<td>Motor, hydraulic and gear oils</td>
</tr>
<tr>
<td></td>
<td>Maintenance Shop</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Storage</strong></td>
<td><strong>15,925</strong></td>
<td></td>
</tr>
</tbody>
</table>

Note: Tank No. 8 is a 1,000-gallon propane AST that is not required to be included in this SPCC Plan.

3.3. **Drainage Pathways and Distance to Navigable Waters**

*Description of facility’s proximity to bays, rivers, streams (perennial or intermittent), creeks, ditches, flood control channels, storm drains, and other waterways. Hydrological systems are described.*

The facility is located in the Pinelands in Burlington County, New Jersey. The Pinelands is located in the Atlantic Outer Coastal Plain. The Outer Coastal Plain is comprised of flat to gently rolling terrain. The facility and much of the Pinelands is underlain by the Cohansey Aquifer, consisting of sand and gravel. Water in the aquifer is very shallow, frequently lying at or near the surface. The shallow water produces bogs and numerous narrow and intermittent streams throughout the region. Due to this shallow water and the high acid content of the soil, regional conditions are optimum for cranberry and blueberry farming.

Lakes in the region are mostly man-made and have generally been created by damming streams and wetlands. Lakes and other ponded surface water are utilized to periodically flood the cranberry bogs. Typically, each acre of cranberry bog is associated with ten acres of upstream woodland as a water source.

Near the facility, there are two unnamed streams and cranberry bogs. A perennial stream is located along the east side of Oswego Road and an intermittent stream is located to the west of the facility. These streams flow to the south-southeast where they eventually discharge to the Oswego River, located approximately 3,000 feet to the east of the facility. The Oswego River...
flows to the south where it becomes part of the Wading River. The Wading River flows southeast into the Mullica River. Cranberry bogs are located north, east and west of the facility. There are no storm drains or detention ponds.

4. **SPILL HISTORY**

112.7(a) A facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken and plans for preventing recurrence.

Table No. 3 indicates that no spills have occurred at this facility.

Table 3  
Spill History

<table>
<thead>
<tr>
<th>Location/Date/Time of Spill</th>
<th>Type &amp; Amount Spilled</th>
<th>Cause</th>
<th>Affected Watercourses</th>
<th>Damages &amp; Cost of Damages</th>
<th>Cleanup Cost</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>---------------</td>
<td>------</td>
<td>---------------------</td>
<td>-------------------------</td>
<td>--------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>

5. **POTENTIAL SPILL PREDICTIONS**

112.7(b) Where experience indicates a reasonable potential for equipment failure (such as loading and unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

Table 4 summarizes the rate and total quantity of oil that would be discharged at storage areas where there is a reasonable potential for equipment failure. A prediction of the direction of flow is not included since the areas surrounding the oil storage are generally flat.
Table 4  Summary of Potential Spill Predictions and Prevention Measures
6. PREVENTION MEASURES PROVIDED

6.1. Summary of Spill Prevention and Control Measures

112.7(c) Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in 112.1(b). The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before clean up occurs. At a minimum, you must use one of the following prevention systems or its equivalent: (1) for onshore facilities: (i) Dikes, berms or retaining walls sufficiently impervious to contain oil; (ii) Curbing; (iii) Culverting, gutters or other drainage systems; (iv) Weirs, booms or other barriers; (v) Spill diversion ponds; (vi) Retention ponds, or; (vii) Sorbent materials. (2) Offshore facilities: (i) Curbing, drip pans, or; (ii) Sumps and collection systems.

Table 4 summarizes the spill prevention and control measures, which are in-place to minimize the potential for equipment failure at the Rutgers Center for Blueberry and Cranberry Research and Extension.

6.2. Facility Drainage

6.2.1. Drainage from diked storage areas

112.8(b) (1) Facility drainage. Restrain drainage from diked storage areas by valves to prevent discharge into the drainage system or facility treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

This section is not applicable to the facility since there are no diked storage areas.

6.2.2. Valves used on diked area storage

112.8(b) (2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, as provided in paragraphs (c) (3)(ii), (iii), and (iv) of this section.

This section is not applicable to the facility since there are no diked storage areas.

6.2.3. Drainage systems from undiked areas

112.8(b)(3) Design facility drainage systems from undiked areas with a potential for a discharge such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons or catchment
basins, designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

Due to the nature of the facility and reliance of the cranberry bogs on surface water infiltration and runoff, a facility drainage system that would provide a means for containing a spill is not feasible. None of the tanks at the facility are located immediately adjacent to any surface water bodies. The entire facility is generally flat, unpaved and contains no storm water catch basins. Therefore, there is a low potential that any of the nearby streams or bogs would be immediately affected in the event of a spill. If a spill is not addressed, there is a high potential for ground water to be affected that would eventually lead to the spill affecting nearby streams and bogs.

Therefore, in the event of a spill, Rutgers will take immediate action to remediate affected soil. Rutgers maintains spill control equipment at the facility (see Section 6.9) and has a contract with a local emergency response contractor. The contractor would be contacted immediately following the discovery of the spill to conduct remediation.

6.2.4. Final discharge of drainage

112.8(b) If facility drainage is not engineered as in paragraph (b)(3), of this section, equip the final discharge of all ditches inside the facility a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

As discussed in Section 6.2.3, there is no facility drainage system.

6.2.5. Facility Drainage Systems and Equipment

112.8(b)(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two ‘lift’ pumps and permanently install at least one of these pumps. Whatever techniques are used, you must engineer facility drainage systems to prevent a discharge as described in paragraph 112.1(b) in case there is an equipment failure or human error at the facility.

As discussed in Section 6.2.3, there is no facility drainage system.

6.3. Bulk Storage Tanks and Secondary Containment

6.3.1. Tank compatibility with its contents

112.8(c) Bulk storage containers. Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

The material and construction of all ASTs is compatible with both type of oil and the conditions of oil storage as summarized in Table 5.
### Table 5  Summary of AST/UST Compatibility with Contents

<table>
<thead>
<tr>
<th>Tank No.</th>
<th>Building Name or Number</th>
<th>Construction</th>
<th>Date Installed</th>
<th>Contents</th>
<th>Contents Compatible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Irrigation Motor Shed</td>
<td>Steel</td>
<td>1998</td>
<td>Diesel Fuel</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Maintenance Shop</td>
<td>Steel</td>
<td>1998</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>USDA Greenhouse</td>
<td>Steel</td>
<td>1998</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>USDA Greenhouse</td>
<td>Steel</td>
<td>1998</td>
<td>Diesel Fuel</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>House</td>
<td>Steel</td>
<td>2002</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Irrigation Motor Shed Near Shop</td>
<td>Steel</td>
<td>1980</td>
<td>Diesel Fuel</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Office/Barn</td>
<td>Steel</td>
<td>1997</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>White Elephant</td>
<td>Steel</td>
<td>1997</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>10</td>
<td>E/W Building</td>
<td>Steel</td>
<td>2008</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>Hot House</td>
<td>Steel</td>
<td>1998</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>3-Greenhouse</td>
<td>Steel</td>
<td>1990</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>Peter’s Greenhouse</td>
<td>Steel</td>
<td>1998</td>
<td>No.2 Fuel Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>14</td>
<td>Irrigation Motor Shed (Blueberry)</td>
<td>Steel</td>
<td>1986</td>
<td>Diesel Fuel</td>
<td>Yes</td>
</tr>
<tr>
<td>15</td>
<td>Maintenance Shop</td>
<td>Steel</td>
<td>1992</td>
<td>Unleaded Gasoline</td>
<td>Yes</td>
</tr>
</tbody>
</table>

#### 6.3.2. Diked area construction and containment volume for storage tanks

112.8(c)(2) Construct all bulk storage tank installations so that you provide a secondary means of containment for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. You must ensure diked areas are sufficiently impervious to contain discharges oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may use an alternative system consisting of a drainage trench enclosure that must be arranged so that a discharge will be safely confined in an in facility catchment basin or holding pond.
Secondary containment will be provided for all bulk storage tanks at the facility by the end of the summer of 2003. The type of secondary containment for each tank is summarized in Table 4. In summary, the ASTs at the irrigation motor sheds (Tank Nos. 1, 6 and 14) have secondary containment provided by the buildings. Tank Nos. 2-4, 10-12 and 15 are double-walled ASTs. The remaining tanks (Nos. 5, 7, and 9) currently do not have secondary containment. Rutgers plans to provide secondary containment for these tanks by the end of summer 2003.

6.3.3. **Diked area, inspection and drainage of rainwater**

112.8(c)(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open water course, lake, or pond, or bypassing the treatment facility system unless you:

(i) Normally keep the bypass valve sealed closed.

(ii) Inspect the retained rainwater to ensure its presence will not cause a discharge as described in paragraph 112.1(b).

(iii) Open the bypass valve is opened and reseal it following drainage under responsible supervision.

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with paragraph 122.41(j)(2) and 122.41(m)(3) of this chapter.

This section is not applicable to this facility since there are no diked areas.

6.3.4. **Corrosion protection of buried metallic storage tanks**

112.8(c)(4) Protect any completely buried metallic storage tanks installed after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

There are no buried storage tanks at the facility.

6.3.5. **Corrosion protection of partially buried metallic tanks**

112.8(c)(5) Not use partially buried metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect the partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

This section is not applicable to the facility since there are no partially buried tanks.

6.3.6. **Aboveground tank periodic integrity testing**

112.8(c)(6) Test each aboveground container for integrity on a regular schedule, and whenever you make material repair. The frequency of and type of testing must take into account container size and design (such as floating roof, skid mounted, elevated, or partially buried). You must combine visual inspection with another testing technique.
such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustical emissions testing, or another system of non-destructive shell testing. You must keep comparison records and you must also inspect the container’s supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and test kept under usual and customary business practices will suffice for purposes of this paragraph.

ASTs are constantly observed by Rutgers personnel during operating hours. Formal inspections are conducted monthly to examine the exterior of the ASTs and the containment areas. These inspections are documented using the form in Attachment C. At a minimum of every five years, ASTs are drained, cleaned, inspected and repaired, or more frequently based on the results of the visual inspections.

6.3.7. Control of leakage through internal heating coils

112.87(c)(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

This section is not applicable to the facility since none of the bulk storage tanks are equipped with internal heating coils.

6.3.8. Tank installation fail-safe engineered

112.8(c)(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.
(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.
(iii) Direct audible or code signal communication between the tank gauger and the pumping station.
(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.
(v) You must regularly test liquid level sensing devices to ensure proper operation.

Several ASTs are equipped with fail-safe engineering systems as summarized in the following table.
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Note: - indicates fail-safe engineering system is not provided for that tank.

A fail-safe engineering system is employed for all tanks at the facility. Tanker trucks are positioned immediately adjacent to tanks during unloading. The position of the tanker truck allows the operator to observe the tank from tanker truck controls. In the event of a hose rupture or an overfill, the tanker truck operator can respond quickly to shut off the tanker truck pump.

Additionally, tank nos. 2, 3, 4, 10 and 11 are equipped with high liquid level audible alarm systems. The systems are designed to be triggered when product reaches 95% of the storage capacity of the tank. Since tanker trucks are positioned immediately adjacent to the tanks during unloading, the tanker truck operator can respond quickly in the event the alarm is triggered.

6.3.9. Observation of disposal facilities for effluent discharge

112.8(c)(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in paragraph 112.1(b).

This section is not applicable to the facility since there are no disposal facilities.
6.3.10. Visible oil leak corrections from tank seams and gaskets

112.8(c)(10) Promptly correct visible oil leaks which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, and bolts. You must promptly remove any accumulations of oil in diked areas.

Visible oil leaks are reported to the Research Farm Supervisor (see Section 2). Subsequent to reporting, a work order is written and the tank is repaired prior to being reused.

6.3.11. Appropriate position of mobile or portable oil storage tanks

112.8(c)(11) Position or locate mobile or portable oil storage containers to prevent a discharge as describe in paragraph 112.1(b). You must furnish secondary means of containment, such as dikes or catchment basins, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

This section is not applicable to this facility since there are no mobile or portable oil storage tanks.

6.4. Bulk Storage Piping

6.4.1. Underground Piping

112.8(d)(1) Provide buried piping that is installed after August 16, 2002 with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a state program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, it should be carefully inspect it for deterioration. If you find corrosion damage, you must undertake, additional examination and corrective action as indicated by the magnitude of the damage.

Underground piping exists at the following storage tanks – Nos. 2, 3, 5, 7, 10, and 13. The underground piping at all storage tanks, 7 (2,500-G No. 2 fuel oil AST) and 13 (1,000-G No. 2 fuel oil AST) is constructed with cathodic protection. Specifically, the piping at these storage tanks is double-walled flexible piping, manufactured by Total Containment, Inc. Rutgers plans to upgrade the piping at the other storage tanks with cathodic protection by the end of the summer of 2003.

6.4.2. Provisions for piping not in service

112.8(d)(2) Cap or blank flange the terminal connection at the transfer point and mark it as to origin when piping is not in service for an extended period of time.

When aboveground piping at the storage tanks is not in use, the terminal connection at the transfer point, where applicable, is capped. All aboveground piping is labeled with product content, origin and direction of flow.
6.4.3. **Aboveground Piping Support**

112.8(d)(3) properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

All aboveground piping is properly supported. The aboveground piping for storage tank nos. 1, 5, 6, 9, 11, and 14 is supported both by the tank and the adjacent building. The aboveground piping at the remaining tanks is supported by external supports or by a dispenser.

6.4.4. **Aboveground valve and pipeline examination**

112.8(d)(4) Regularly inspect all aboveground valves, piping and appurtenances. During the inspection you must assess the general conditions of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must conduct integrity and leak testing of buried metal piping at the time of installation, construction, relocation, or replacement.

Aboveground piping and valves are inspected at the time facility inspections are conducted on a monthly basis. Records of these inspections are documented and signed by the inspector. The checklist used for these inspections can be found in Attachment C.

6.4.5. **Aboveground piping protection from vehicular traffic**

112.8(b)(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

All aboveground piping is protected from vehicular traffic. The aboveground piping is either situated between the AST and the building or is protected by concrete bollards. Concrete bollards are installed at storage tank nos. 2, 3, 4, 10, 11, and 15.

6.5. **Facility Truck Unloading**

6.5.1. **Unloading procedures meet DOT regulations**

Rutgers requires all drivers to comply with DOT regulations in 49 CFR part 177 and a facility standard operating procedure (see Attachment D).

6.5.2. **Secondary containment for tanker trucks**

112.7(h)(1) Facility tank car and tank truck loading/unloading rack (excluding offshore facilities). Where loading/unloading area drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank truck loading and unloading areas. You must design a containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.
All tanker truck unloading areas associated with storage tanks are undiked. However, there are no areas where there is a reasonable potential for a spill to occur from the tanker truck and immediately affect any of the nearby streams or bogs. Therefore, in the event of a spill, Rutgers will take immediate action to remediate affected soil. Rutgers maintains spill control equipment at the facility (see Section 6.9) and has a contract with a local emergency response contractor. The contractor would be contacted immediately following the discovery of the spill to conduct remediation.

6.5.3. **Warning or barrier system for vehicles**

112.7(h)(2) Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed transfer lines.

Warning signs are posted in the unloading areas for the tanks to prevent vehicular departure before disconnecting flexible or fixed transfer lines

6.5.4. **Vehicles examined for lowermost drainage outlets before leaving**

112.7(h)(3) Prior to filling and departure of any tank car or tank truck closely inspect for discharges the lowermost drain and all outlets of such vehicles, if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

Warning signs are posted in all the unloading areas to remind drivers to examine drain outlets prior to departure.

6.6. **Inspections and Recordkeeping**

112.7(e) Conduct inspections and test required of this part in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph

Facility inspection procedures:

Formal facility inspections are conducted monthly and records of these inspections are documented and signed by the inspector. During the monthly inspections, all unloading areas, containment structures, valves, pipelines, and other equipment are inspected.

Length of time records kept:

Inspection, training, and tank integrity testing records are retained for at least three years.
6.7.  Site Security

6.7.1.  Fencing

112.7(g)(1) Fully fence each facility handling, processing, and storing oil and lock and/or guard entrance gates the facility is not in production or is unattended.

Fencing is provided around the entire facility.

6.7.2.  Flow valves locked

112.7(g)(2) Security. Ensure the master flow and drain valves and any other valves permitting direct outward flow of the container’s contents to the surface have adequate securely measures so that they remain in the closed position when in non-operating or non-standby status.

The only tanks where an appurtenance could be opened to allow the contents to flow outward are at tank nos. 4 and 15. Piping at these tanks is connected to a fuel dispenser. The fuel dispensers are secured with a lock.

6.7.3.  Starter controls locked

112.7(g)(3) Lock the starter control on each oil pump in the ‘off’ position and locate it at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

Starter controls for pumps associated with boilers and other heating equipment are located inside buildings accessible only to authorized Rutgers personnel. Starter control for fuel dispensers which service tank nos. 4 and 15 are secured with locks.

6.7.4.  Fill piping connections securely capped

112.7(g)(4) Securely cap or blank flange the loading/unloading connections of oil pipelines or facility piping when not in service or standby service.

All fill piping connections are securely capped when they are not in use and blank-flanged when they are in standby service for an extended time.

6.7.5.  Lighting adequate to detect spills

112.7(g)(5) Provide facility lighting commensurate with the type and location of the facility that will assist in the:
(i) Discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by nonoperating personnel (the general public, local police, etc.) and
(ii) Prevention of spills occurring through acts of vandalism.
There is no lighting to illuminate the individual storage tank areas. However, there is lighting to illuminate the facility and deter acts of vandalism.

6.8. Personnel Training and Spill Prevention Procedures

6.8.1. Personnel instructions

112.7(f)(1) Personnel, training and discharge prevention procedures. At a minimum, train your oil handling personnel in the operation and maintenance of equipment to prevent the discharges; discharge procedure protocols; applicable pollution control laws, rules and regulations; general facility operations; and, the contents of the SPCC Plan.

Any personnel responsible for implementing the provisions of this SPCC Plan are required to have spill prevention training which includes a complete review of Rutgers' SPCC Plan. Rutgers conducts training to ensure that these personnel are familiar with the SPCC Plan and the measures to be implemented in the event of a discharge.

6.8.2. Designated person accountable for spill prevention

112.7(f)(2) Designate a person at each applicable facility who is accountable for oil spill prevention and who reports to facility management.

The Director of Farm Activities is the designated person accountable for spill prevention at this facility.

6.8.3. Spill prevention briefings

112.7(f)(3) Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges in paragraph 112.1(b) or failures, malfunctioning components, and recently developed precautionary measures.

During annual safety briefings, spill prevention is discussed. Any incidents are discussed in these briefings in order to prevent them from recurring. Employee feedback and recommendations are encouraged in spill prevention and operation. Sign-in sheets, which include the topics of discussion at each meeting, are maintained for documentation.

6.9. Spill Control Equipment

Spill control equipment stored at or near the oil storage areas includes absorbent pads and booms, oil-absorbent clay, empty drums, brooms and shovels.
6.10. Emergency Contacts

Part 110-Discharge of Oil: 110.10 Notice. Any person in charge of a vessel or of an onshore or offshore facility shall, as soon as he or she has knowledge of any discharge of oil from such vessel or facility in violation of §110.6, immediately notify the National Response Center (NRC) (800-424-8802; in the Washington, DC metropolitan area, 426-2675). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the predesignated OCS immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible. The reports shall be made in accordance with such procedures as the Secretary of Transportation may prescribe. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR part 153, subpart B and in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR part 300, subpart E. (Approved by the Office of Management and Budget under the control number 2050-0046).

In the event of discharge, the person who is at the scene shall first contact the Research Farm Supervisor. The Research Farm Supervisor shall then contact REHS and Emergency Personnel, as necessary. Table No. 7 is a listing of the emergency contacts.

Table 7 Emergency Contacts

<table>
<thead>
<tr>
<th>Name/Organization</th>
<th>Phone Number</th>
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<tr>
<td>Rich DeStefano, Research Farm Supervisor</td>
<td>(609) 726-1590</td>
</tr>
<tr>
<td>Federal National Response Center</td>
<td>(800) 424-8802</td>
</tr>
<tr>
<td>NJDEP Spill Hotline</td>
<td>(877) WARN DEP</td>
</tr>
<tr>
<td>Green Bank Vol. Fire Company</td>
<td>(609) 965-2272</td>
</tr>
<tr>
<td>Lower Bank Vol. Fire Company</td>
<td>(609) 965-5857</td>
</tr>
<tr>
<td>Rutgers Environmental Health &amp; Safety (REHS)</td>
<td>(732) 445-2550</td>
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ATTACHMENT A

Certification of the Applicability of the Substantial Harm Criteria (40 CFR 112.20)
Certification of the Applicability of the Substantial Harm Criteria (40 CFR 112.20)

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 such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?
   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 such that a discharge from the facility would shut down a public water intake?
   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 spill 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: ____________________________  Date: ____________________________
Name: ________________________________
Title: ________________________________

SPCC Plan  May 2008
Center for Blueberry and Cranberry Research & Extension
Rutgers, The State University of NJ
ATTACHMENT B

Monthly Facility Inspection Checklist
MONTHLY FACILITY INSPECTION CHECKLIST

Date: ________________________________

Time: ________________________________

Inspector: ________________________________

X=Satisfactory  NA=Not Applicable  0=Repair or Adjustment Required  C= Comment under Remarks/Recommendations

Drainage

___ Any noticeable oil sheen on runoff.
___ Containment area drainage valves are closed and locked.
___ Oil/water separator systems working properly.
___ Effluent from oil/water separator inspected.
___ No visible oil sheen in containment area.
___ No standing water in containment area.
___ Valves, flanges, and gaskets are free from leaks.
___ Containment walls are intact.

Pipelines

___ No signs of corrosion damage to pipelines or supports.
___ Buried pipelines are not exposed.
___ Out-of-service pipes capped.
___ Signs/barriers to protect pipelines from vehicles are in place.
___ No leaks at valves, flanged, or other fittings.
___ Containment curbing or trenches intact.
___ Connections are capped or blank-flanged.

ASTs

___ Tank surfaces checked for signs of leakage.
___ Tank condition good (no rusting, corrosion, pitting).
___ Bolts, rivets, or seams are not damaged.
___ Tank foundation intact.
___ Level gauges and alarms working properly.
___ Vents are not obstructed.

Truck Loading/Unloading Area

___ No standing water in rack area.
___ Warning signs posted.
___ No leaks in hoses.
___ Drip pans not overflowing.
___ Catch basins free of contamination.

Security

___ Fence and gates intact.
___ Gates have locks.
___ ASTs locked when not in use.
___ Starter controls for pumps locked when not in use.
___ Lighting is working properly.

Training

___ Spill prevention briefing held.
___ Training records are in order.

Remarks/Recommendations:

SPCC Plan
Center for Blueberry and Cranberry Research & Extension
Rutgers, The State University of NJ

May 2008
Attachment C

Aboveground Storage Tank Inspection Report Form
AST INSPECTION REPORT

Date: _______________________
Location Liquid Level: _______________________
Tank No. Temp.: _______________________
Capacity Diameter Height: _______________________

1. Weather Stripping or Flashing
   a. Are all pieces tight against shell?

   b. Are any pieces missing or (Photo No. ) require repairs?
      How many?

2. Hoses & Piping
   a. General appearance of hoses

   b. Any leaks? If so, explain

   c. Aboveground piping free of leaks?

3. Roof Ladder
   a. Does ladder appear to roll easily or need repairs?

4. Contamination
   a. Is roof free of oil and water? If not, indicate percent coverage of each liquid and depth at worst location on attached drawing.
5. Corrosion Control

a. Note general appearance of paint on shell, roof, ladder and structural members:

b. Is rusting or pitting occurring on any of the above?
If yes, explain where and if repairs are needed immediately.

c. Are all insulating flange washers and sleeves in place?
If missing, cracked, or broken, explain where and repairs needed:

d. Are all ground and/or anode straps in place?
If missing or damaged, indicate location on drawing and explain repairs needed:

6. Are high-level alarms functioning properly? Tested to verify?

7. Other Observations

a. Note anything that might affect smooth movement of roof and any problem that would allow escape of vapors or air pollution:

8. Show any damaged areas or problem areas (on tanks with floating roof, show location and size of any gaps in seal) on attached drawing.

9. Remote and side gauges working
ATTACHMENT D

Standard Operating Procedure
Tanker Truck Unloading
ATTACHMENT E

Photographs