RUTGERS BIOMEDICAL & HEALTH SCIENCES NEW BRUNSWICK, NJ

SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN

Prepared by: Delta Environmental Consultants, Inc.

Revised by Rutgers Environmental Health & Safety (9/12/18)

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- APPENDIX C Monthly Inspection Form
- **APPENDIX D Spill Response Procedures**
- APPENDIX E Certification of the Applicability of the Substantial Harm Criteria

SPCC Plan Record of Review or Revision

DATE	ВҮ	MODIFICATION	APPROVAL (INITIALS)
11/2002	R Walters, InteGreyted	Addition of Piscataway and New Brunswick Tank; Revision of references to meet SPCC rule revisions	
8/18/05	K. Koenig	Complete revision of SPPCC Plan to reflect site changes and update to SPCC rules and regulations.	
5/30/08	Lan Nguyen	Update facility information, tank information and tank testing. Add site plans, SPCC training power point, and spill response appendices.	LHN
12/19/13	James Simoni	Update facility information for Rutgers University/UMDNJ merger.	JS
12/10/14	James Simoni	Update tank location map.	JS
1/20/16	James Simoni	Update Authorized Representative to Antonio Calcado, Senior VP Institutional Planning and Operations	JS
9/12/18	James Simoni	Plan review, update Michael Manchello's title	JS

1. General Information

1.1. Facility Information

Name	Rutgers Biomedical and Health Sciences
Type Location	State University and Teaching Hospital 125 Paterson Street New Brunswick, New Jersey 08901
Spill Plan Coordinator	Michael Manchello Associate VP, Operations & Services
Emergency Coordinator	James Simoni Rutgers Environmental Health & Safety 848-445-2550
Name and Address of Owner or Operator	Rutgers, The State University of New Jersey Old Queens 83 Somerset Street New Brunswick, NJ 08901-1281

1.2 SPCC Certification and Approval

Facility Management

This SPCC Plan will be fully implemented as herein described. The designated Spill Plan Coordinator of designated alternate has the authority to commit the necessary resources and implement the response procedures necessary to fully implement this Plan and to prevent the release of oil to the environment.

Signature of Authorized Representative

Antonio M. Calcado Name of Authorized Representative

Date

Senior Vice President Institutional Planning & Operations Title

In addition, the facility certifies that it does not meet the substantial harm criteria under which a Facility Response Plan would be required per 40 CFR 112.20. This documentation and certification of the non-applicability of these criteria is provided in Appendix H.

Professional Engineer

I hereby certify that I or my agent have visited and examined the subject facility, and being familiar with the requirements of 40 CFR, Part 112, attest that this Plan complies with all applicable requirements and was prepared in accordance with good engineering practices, considerations of applicable industry standards, and state and local requirements. I also certify that procedures for required inspections and testing have been established and the Plan is adequate for the facility.

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Name

1// 27/ 20/3 Date

GE 33988

License Number

2. Introduction and Regulatory Applicability

This Spill Prevention Control and Countermeasure (SPCC) Plan was developed for the Rutgers Biomedical & Health Sciences New Brunswick campus of Rutgers, The State University of New Jersey (RBHS). The Plan is to be used as a guideline for the prevention of oil and petroleum product spills and, in the event that an oil spill does occur, as a guide for controlling and ultimately cleaning up such a spill.

This SPCC Plan has been developed in accordance with the regulatory requirements set forth by the United States Environmental Protection Agency (EPA) in Title 40 of the Code of Federal Regulations, Part 112 (40 CFR 112) - Oil Pollution Prevention. The Federal regulations were promulgated by the EPA under the authority of §311(j)(1)(C) of the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990. The Oil Pollution Prevention regulations were amended and reissued on July 17, 2002. The regulatory citations and requirements reflected in this Plan reflect the most recent regulatory changes.

The Oil Pollution Prevention regulations establish the requirements for Spill Prevention, Control, and Countermeasure (SPCC) Plans to prevent spills of oil by non-transportation-related on-shore facilities into waters of the United States or adjoining shorelines, including the criteria under which an SPCC Plan must be prepared, and the contents and sequence of the Plan.

As applicable to the facility, 40 CFR 112.1 (General Applicability):

"any owner or operator of a non-transportation-related onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products which, due to its location, could reasonably be expected to discharge oil in quantities that may be harmful, as described in part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines"

The SPCC Plan must be developed if the facility has the potential to discharge oil in harmful quantities to navigable waters, and if certain oil storage thresholds are exceeded. A "navigable waterway" has been broadly defined to encompass any continuous or intermittent watercourse that can empty into a navigable waterway, including storm drains. The applicable thresholds are 1,320 gallons of total aboveground storage in containers equal to or greater than 55 gallons and/or completely buried underground storage tanks in excess of 42,000 gallons, if they are not otherwise subject to the requirements of the Underground Storage Tank regulations in 40 CFR parts 280 and 281.

RBHS's New Brunswick campus stores fuel oil in underground and above-ground tanks in several locations throughout the campus. Total storage capacity at the site is approximately 8,100 gallons.

Because the storage quantity and discharge pathway criteria are met, RBHS is subject to 40 CFR 112, and an SPCC Plan is required.

3. Description of Facility

The RBHS New Brunswick facilities include the Clinical Academic Building (CAB), Cancer Institute of NJ, Medical Education Building (MEB) Parking Deck and Robert Wood Johnson Health Institute. The research facilities are located within downtown New Brunswick along Paterson, French and Somerset Streets.

Site plans can be found in Appendix A.

4. Applicable Oil Storage Tanks and Areas

Oil and petroleum products are stored at numerous locations on the RBHS New Brunswick campus. The majority of oil storage is concentrated within five tank systems.

Table 1 summarizes the locations and quantities of oil and related petroleum products which pose a reasonable potential for discharge due to handling, equipment and/or container failure, overflow or leakage, and which could be discharged to the environment in a spill event.

Outlined on the following pages are descriptions of each significant site where oil is stored or used, including site-specific spill pathway, and spill control information.

ID #	Bldg #	Bldg # Description Container Capacity (g)			
1	3183	CAB Generator	rator UST – 1000g		
			AST – 100g (day tank)		
2	3184	MEB Parking Deck Generator	AST – 500g	Diesel	
			AST – 50g (day tank)		
3	3188	Cancer Institute Generator	AST – 1500g	Diesel	
4	3188	CINJX Generator	AST – 500g	Diesel	
5	3189	RWJCHI Generator	UST – 4000g	Diesel	
			AST – 300g (day tank)		
6	3188	Mechanical Rooms	Drum Storage – 150g	Lube Oils	

TABLE 1 - RBHS Primary Oil Storage Areas

ID No. 1 – CAB Generator UST and Day Tank (New Brunswick)				
Location	 The underground tank is located outdoors, along the southeast side of the Clinical Academic Building (CAB). Diesel fuel is pumped from the UST to the day tank (indoors) which feeds the CAB generator. The day tank and generator are located below grade in the CAB Basement (Room B013). 			
Container Type, Storage Capacity & Material Stored	 Underground tank – 1000-gallon double-walled, fiber glass coated steel Day tank – 100-gallon steel tank Aggregate storage capacity = 1,100 gallons 			
Discharge Scenarios/ Estimated Quantity of Material Potentially Discharged	 Worst-case: Catastrophic failure of a tanker truck compartment. An estimated maximum spill of 1,500 gallons could potentially be discharged. More likely: Tanker truck hose rupture. Estimated release volume would be on the order of 50 to 100 gallons. 			
Possible Spill Pathways	 Spills resulting from hose failure or tanker truck compartment rupture would flow along the paved driveway toward Paterson Street and could reach one or more storm sewers along the street. Spills due to tank overfilling may result in discharge through vent pipes on the tank pad and onto adjacent grassy areas. Minor spills or drips during filling would likely be contained within the spill bucket. 			
Spill Prevention Measures	 5 gallon spill buckets are located on the remote fill ports of each tank to catch minor leaks and spills during filling operations. Administrative procedures are in place to prevent tanks from being filled to more than 85% of capacity. Each tank is equipped with an overfill monitor with a visual alarm set at 90% of tank capacity. Each tank is equipped with an electronic tank gauging system to verify tank contents and identify leakage. Tanks are audited annually to evaluate potential leaks. Tanks are equipped with Tracer Tight leak detection systems which are used to test for leakage at least once every four years. Oil transfer operations are continuously manned. 			
Spill Controls	 A Spill Kit including absorbent materials is located in the adjacent CAB building. See Sections 16 and 17 for spill notification and response procedures. 			

ID No. 2 – MEB Generator Tank (New Brunswick)				
Location	 Ground floor of Medical Education Building (MEB) parking deck. The fill pipe and vent for the tank are located along French Street. The utility room in which the tank is located is actually slightly below grade. Diesel fuel is pumped from the tank directly to the MEB generator on the top floor via a pipe chase running within the parking deck and hospital. 			
Container Type, Storage Capacity & Material Stored	 MEB generator tank – 500 gallon steel tank (indoor) Day tank – 50 gallons Aggregate storage capacity = 550 gallons 			
Discharge Scenarios/ Estimated Quantity of Material Potentially Discharged	 Worst-case: Catastrophic failure of a tanker truck compartment. An estimated maximum spill of 1,500 gallons could potentially be discharged. More likely: Tanker truck hose rupture. Estimated release volume would be on the order of 50 to 100 gallons. 			
Possible Spill Pathways	 Spills resulting from hose failure or tanker truck compartment rupture outside the parking deck could flow into storm drains located along French Street, within 100 feet of the fill port. Spills or releases within the parking deck would collect at the lowest level of the parking deck. The structure is built of concrete and does not have storm drains at the lowest level; therefore, these spills would likely be cleaned up without reaching a waterway. Leaks or overfills from the tank itself would likely be contained within the concrete secondary containment. The utility room itself also provides a level of containment, since it is below grade. 			
Spill Prevention Measures	 The tank is located within a concrete secondary containment capable of holding the entire contents of the tank. Administrative procedures are in place to prevent tanks from being filled to more than 85% of capacity. Delivery driver remains with the truck during unloading and RBHS personnel oversee tanker truck connections and disconnections per Section 11 of this Plan. Liquid level indicators for visual indication of available tank capacity. 			
Spill Controls	 Secondary Containment: The tank is equipped with secondary containment able to hold the entire tank contents. A Spill Kit including absorbent materials is located adjacent to the generator. See Sections 16 and 17 for spill notification and response procedures. 			

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ID No. 3 – Cancer Institu	ite Generator Tank (New Brunswick)
Location	Outdoors, on the southwest side of the Cancer Institute. Tank is part of a Caterpillar generator set. The tank sits beneath the generator on a concrete slab, to the southwest of the loading dock.
Container Type,	1500 gallon steel diesel fuel tank with integral secondary
Storage Capacity &	containment.
Material Stored	Aggregate storage capacity = 1,500 gallons
Discharge Scenario/	Image: Worst-case: Catastrophic failure of a tanker truck compartment.
Estimated Quantity of	An estimated maximum spill of 1,500 gallons could potentially be
Material Potentially	discharged.
Discharged	More likely: Tanker truck hose rupture. Estimated release volume would be on the order of 50 to 100 gallons.
Possible Spill Pathways	Spills resulting from hose failure or tanker truck compartment rupture would flow in a northeasterly direction toward the loading dock and/or toward Somerset Street. The loading dock grates drain to the local storm sewer.
	Leaks or overfills from the tank itself would likely be contained within the external tank housing.
Spill Prevention Measures	Administrative procedures are in place to prevent tanks from being filled to more than 85% of capacity.
	Delivery driver remains with the truck during unloading and RBHS personnel oversee tanker truck connections and disconnections per Section 11 of this Plan.
	 Liquid level indicators for visual indication of available tank capacity.
Spill Controls	Secondary Containment: The base of the generator/tank unit serves as integral secondary containment able to hold the entire tank contents.
	A Spill Kit including absorbent materials is located in the Cancer Institute adjacent to the tank.
	See Sections 16 and 17 for spill notification and response procedures.

ID No. 4 – CINJX Generator Tank (New Brunswick)					
Location 🛛		Outdoor, on the Southwest side of the Cancer Institute of New Jersey Expansion (CINJX) building. Tank is part of a Caterpillar generator set. The tank sits beneath the generator on a concrete slab. The generator and tank have their own casing.			
Container Type,		500 gallon steel diesel fuel tank with integral secondary			
Storage Capacity &		containment.			
Material Stored		Aggregate storage capacity = 500 gallons			
Discharge Scenario/		Worst-case: Catastrophic failure of a tanker truck compartment.			
Estimated Quantity of		An estimated maximum spill of 1,500 gallons could potentially be			
Material Potentially	_	discharged.			
Discharged		More likely: Tanker truck hose rupture. Estimated release volume would be on the order of 50 to 100 gallons.			
Possible Spill Pathways		Spills resulting from hose failure or tanker truck compartment rupture would flow in a northeasterly direction toward the loading dock and/or toward Somerset Street. The loading dock grates drain to the local storm sewer.			
		Leaks or overfills from the tank itself would likely be contained within the external tank housing. There is a drip pan in the wall to catch minor drips from the hose.			
Spill Prevention Measures		Administrative procedures are in place to prevent tanks from being filled to more than 85% of capacity.			
		Delivery driver remains with the truck during unloading and RBHS personnel oversee tanker truck connections and disconnections per Section 11 of this Plan.			
		Liquid level indicators for visual indication of available tank capacity.			
Spill Controls		Secondary Containment: The base of the generator/tank unit serves as integral secondary containment able to hold the entire tank contents.			
		A Spill Kit including absorbent materials is located in the Cancer Institute adjacent to the tank.			
		See Sections 16 and 17 for spill notification and response procedures.			

ID No. 5 –RWJCHI Gene	erator UST and Day Tank (New Brunswick)
Location	 The underground tank is located outdoors, along the North side near the loading dock of the RWJ Child Health Institute (RWJCIH). Diesel fuel is pumped from the UST to the day tank (indoors) which feeds the generator. The day tank and generator are located in the penthouse area of the building.
Container Type,	Underground tank – 4,000-gallon double-walled steel tank
Storage Capacity &	Day tank – 300-gallon steel tank in the Penthouse
Material Stored	Aggregate storage capacity = 4,300 gallons
Discharge Scenarios/ Estimated Quantity of Material Potentially	 Worst-case: Catastrophic failure of a tanker truck compartment. An estimated maximum spill of 1,500 gallons could potentially be discharged.
Discharged	 More likely: Tanker truck hose rupture. Estimated release volume would be on the order of 50 to 100 gallons.
Possible Spill Pathways	 Spills resulting from hose failure or tanker truck compartment rupture would flow along the paved driveway toward French Street and could reach one or more storm sewers along the street. Spills due to tank overfilling may result in discharge through vent pipes on the tank pad and into the loading dock area.
	 Minor spills or drips during filling would likely be contained within the spill bucket.
Spill Prevention Measures	 5 gallon spill buckets are located on the remote fill ports of each tank to catch minor leaks and spills during filling operations. Administrative procedures are in place to prevent tanks from being filled to more than 85% of capacity. Each tank is equipped with an overfill monitor with a visual alarm set at 90% of tank capacity.
	 Each tank is equipped with an electronic tank gauging system to verify tank contents and identify leakage. Tanks are audited annually to evaluate potential leaks. Tanks are equipped with Tracer Tight leak detection systems which are used to test for leakage at least once every four years. Oil transfer operations are continuously manned.
Spill Controls	 A Spill Kit including absorbent materials is located in the adjacent RWJCIH building. See Sections 16 and 17 for spill notification and response procedures.

ID No. 6 – Mechanical Rooms (general)				
Location	Indoors, various locations.			
Container Type, Storage Capacity & Material Stored	 Drum storage of lubricating/hydraulic oils; small quantity oil storage (typically no more than 2 to 3 drums in any room). Aggregate storage capacity per mechanical room = 150 gallons There is one mechanical room per building at each campus 			
Discharge Scenarios/ Estimated Quantity of Material Potentially Discharged	 Worst-case: Leaks/spills from drum mismanagement, resulting in spills of up to 55 gallons. More likely: Minor leaks (less than 1 gallon). 			
Possible Spill Pathways	Given the small quantities of materials and locations within the buildings, it is unlikely that spills would reach floor drains or escape the mechanical rooms.			
Spill Prevention Measures	 Employees receive training in proper container management to prevent spills or releases. The areas are located indoors. Drums and containers are stored on spill pallets to contain leaks or container ruptures. 			
Spill Controls	See Sections 16 and 17 for spill notification and response procedures.			

5. Spill History

According to plant personnel, there have been no spills or discharges resulting in impacts to navigable waterways over the past five years.

6. Spill Potential (40 CFR 112.7(b))

Potential spill scenarios at the RBHS New Brunswick campus include the following.

- <u>Tank ruptures</u> Catastrophic failure of an above-ground oil storage tank presents the potential for a large volume, short duration discharge scenario. Secondary containment structures around the tanks will prevent oil from reaching a waterway.
- <u>Tank overflows (UST or AST) Overflows can occur during filling operations, or as a result of product expansion from elevated temperatures.</u> RBHS has instituted administrative controls limiting tank contents to 85-90% of total storage capacity.
- <u>Tank leakage (UST or AST) Tank leaks represent relatively low volume, long-duration discharges</u>. In addition to engineered controls and inventory management procedures, routine tank inspection will minimize the potential for leaks (and the total quantity of material released should a leak occur).
- Piping failure or leakage Discharges due to pipe leaks depend on a number of factors including: the severity of the leak or failure; the location of the break; the capacity of the supply and/or receiving vessel; the pumping rate; and the presence or absence of controls. The majority of oil piping at RBHS is located within buildings, minimizing the potential for impacting waterways.
- Tanker or hose failure during storage tank filling/or waste oil loading Worst-case scenarios involve catastrophic failure of a tanker compartment; a more likely scenario involves inadvertent hose disconnection or valve failure. Discharge quantities under the latter situation will be a function of pumping rate and personnel response time. Oil loading/unloading procedures are manned by RBHS staff and addressed in Section 11.
- Spills and leaks during drum management Improper drum handling or transport may result in loss of up to 55 gallons of material. Since these activities typically take place without secondary containment, employee training is critical to prevent discharges. Employee training is addressed in Section 9.

Section 4 describes the "worst case" and "more likely" spill scenarios for each major oil storage area at the RBHS campus, including anticipated release volume and direction of flow.

7. Containment Measures (40 CFR 112.7(c))

Tank containment systems and administrative procedures for each major oil storage area are presented in Section 4. A summary of containment measures and procedures is provided below.

7.1. Aboveground Tanks

RBHS's New Brunswick campus operates a total of five fixed aboveground oil storage tanks ranging in size from 50 to 1,500 gallons. The 1,500 gallon tank for the Cancer Institute generator, the 500 gallon tanks located in the Hospital parking deck and RWJ Cancer Institute of New Jersey Expansion and the 300 gallon day tank serving RWJCH are equipped with secondary containment sufficient to contain the contents of

the respective tanks and impervious to contain spilled materials. The 100-gallon tank serving the CAB generator and the 50 gallon tank serving the MEB parking deck generator have no dedicated containment, but are located indoors with minimal potential for spills to escape their respective rooms.

RBHS will maintain sufficient supplies of sorbent materials to contain and clean up spills from these tanks.

7.2. Underground Tanks

There are two underground tanks at the RBHS New Brunswick campus ranging from 1,000 to 4,000 gallons in capacity. These tanks have been upgraded to meet Federal and state requirements for containment and leak detection.

RBHS has developed monitoring procedures to be used for inventory reconciliation and leak detection. All USTs are also equipped with Tracer Tight systems which can be used to conduct periodic leak testing. The system involves adding a highly volatile material to the tank, which will be released into the soil and rapidly dispersed if a leak is present. The tracer compound is detected by soil vapor monitors located around each tank.

The greatest potential for releases to surface water from UST systems occurs during loading/ unloading operations. All tank fill ports are fitted with spill buckets to contain minor spills or drips during filling. RBHS will maintain sufficient supplies of sorbent materials and equipment to contain and clean up spills during transfer operations.

7.3. Portable Containers

Small containers, such as drums and pails, may be located in maintenance shops and utility rooms on either campus. These typically lack secondary containment, but the small quantity of oil stored in any container precludes the potential for significant spills or discharges. RBHS will maintain sufficient supplies of sorbent materials and equipment to contain and clean up spills associated with these containers. The interior floors are impervious to contain any spilled materials.

8. Inspections and Recordkeeping (40 CFR 112.7(e))

8.1. Storage Area Inspections

The facility is manned by personnel with job responsibilities requiring them to be in the vicinity of the oil and product storage areas on a daily basis. These employees observe the storage areas as a matter of routine and are trained to respond to leaks and recognize abnormal operating conditions.

All storage areas for oil listed in Table 1 receive documented inspections on a monthly basis. These inspections are conducted under the direction of the Director, Physical Plant per the procedure and form provided in Appendix D of this Plan. The inspection log is completed, signed and filed with the SPCC Plan. If a deficiency is found, a work order is issued to correct the problem.

The following procedures should be used as guidelines when performing the monthly inspections.

1. Refer to the Inspection Form for storage area identification and location.

- 2. Visually observe tanks, level sensors, pumps, lines and valves. Indicate leaks, seepage or other signs of deterioration.
- 3. Visually observe drums. Indicate leaks, missing bungs, swelling or other signs of deterioration. Indicate missing or unreadable labels.
- 4. Inspect spill response equipment. Indicate equipment in need of replacement or repair and document date of corrective action.

Record changes in storage locations and the establishment of new storage areas as observed.

To ensure that tank systems are, as far as practicable, fail-safe, level indicators will be

monitored

as appropriate on an on-going basis while liquid transfer operations are occurring. The liquid level indicators are checked at least annually to assure proper operation. These inspections will be performed in accordance with the procedures provided in Appendix C.

8.2. Tank Testing

All USTs contain corrosion protection in accordance with N.J.A.C 7:14-4.2 and 40 CFR 280. The UST systems (i.e. tank and piping), including 1,000 gallon Diesel Fuel the supplies the CAB emergency generator and the 4000 gallon Diesel Fuel UST supplying the RWJCHI emergency generator are double-walled, consisting of an inner steel tank surrounded by a fiberglass-coated outer steel tank with interstitial monitoring. The tanks were designed and installed in compliance with N.J.A.C. 7:14B-4 and 40 CFR part 280.

UST systems are visually inspected on a monthly basis. The inspection consists of removing all manway covers to verify the absence of water/product accumulation in the manways and spill bucket as well as ensuring the probes are intact and functional.

ASTs are constantly observed by RBHS 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 Appendix C. At a minimum of every five years, ASTs are tested for shell thickness or more frequently based on the results of the visual inspections. Testing will combine an internal visual inspection with a non-destructive shell testing technique such as hydrostatic testing using an inert gas, ultrasonic testing, acoustic emissions, radiographic, or any other system of non-destructive shell testing.

8.3. Recordkeeping

RBHS will retain the following records for a minimum of three years.

- A copy of this SPCC Plan, with amendments.
- □ Monthly inspection records (see Section 8.1).
- Records of reportable spills and discharges, including reports filed with Federal or state agencies (if any; see Section 17).
- Spill briefing/training records (dates, attendees, agenda; see Section 9).
- □ Records of level/overfill alarm testing and tank integrity testing.
- Documentation of agency inspections relative to 40 CFR 112, including notices of noncompliance and corrective actions undertaken (if any).

9. Personnel Training (40 CFR 112.7(f))

Spill prevention briefings are provided for appropriate personnel in engineering, maintenance, and operations. Refresher training is conducted at least annually. The Assistant Director is responsible for arranging for training and is responsible for retention of training records for the previous three (3) years.

REHS provides yearly in-house and on-line SPCC training. The training includes a review of this SPCC Plan and applicable laws and regulations, and focuses on proper oil transfer/unloading procedures and spill response procedures (Appendix-D).

10. Site Security (40 CFR 112.7(g))

The RBHS campuses are staffed 24 hours per day, 7 days per week by operations and/or security personnel. The grounds are routinely patrolled by personnel trained to identify and report spills. Portions of the campus are fenced and building access is controlled through locks and security checkpoints. Outdoor generators are locked and accessible only to authorized personnel.

Principal oil storage areas are adequately lighted to provide for the discovery of aboveground leaks during darkness and for deterrence of vandalism.

11. Tank Truck Unloading (40 CFR 112.7(h))

Bulk oil shipments at the RBHS campuses are generally made by 1,500-gallon or 7,500-gallon tanker truck. Because the campuses are located in highly trafficked areas, and because oil storage tanks are located throughout the campus, there is no dedicated unloading area or unloading rack. Trucks generally park on a side street or driveway, or in a parking lot, in close proximity to the tank fill port. These areas are not equipped with containment structures or catch basins. For this reason, oil deliveries must be closely monitored by personnel trained to respond appropriately in an emergency.

A memorandum summarizing procedures to be followed during oil dispensing is provided in Appendix B. The principal steps to be followed for any oil unloading are provided below.

Prior to delivery:

- □ Mark tank fill ports, including color coding for fuel type.
- Do not order oil which would bring tank levels above 90% of capacity.

Time of delivery:

- □ Confirm accuracy of paperwork.
- □ Identify the tank to receive the shipment.
- Gauge the tank contents (electronic or manual tank gauge, or stick small tanks without electronic gauging).
- □ Chock truck wheels.
- □ Have delivery driver make the proper hose connections, then verify connections.
- Give authorization to proceed ONLY after all of the above steps are completed.
- Remain in the vicinity throughout the transfer procedure.

At completion of delivery:

- Inspect the tank fill area for spills/leaks.
- Re-gauge the tank and compare volume increase with delivery receipt.
- Observe hose/coupling disconnections and verify no spills/leaks (disconnection should commence with the lowermost drain first).
- **□** Remove wheel chocks only when disconnection is complete.
- □ Sign off on paperwork as necessary.
- Drain spill bucket.

Inventory reconciliation logs must also be completed monthly for underground tanks, to verify that no leaks are occurring. Samples of UST monitoring procedures and logs are provided in Appendix C.

12. Facility Drainage (40 CFR 112.8(b))

As described in Section 3, the RBHS satellite campus sites are generally flat or exhibit moderate slopes, dependent on both local topography and past construction/grading activity. Water (or oil) flow will typically follow the contours of paved driveways or roads. Storm drains in both locations flow to the Raritan River, which is within a half mile of the two campuses.

There are no outdoor secondary containment or diked storage areas which could be exposed to precipitation. The tank underneath the Cancer Center emergency generator in New Brunswick is completely enclosed.

All storm drains at the RBHS campus eventually discharge to the Raritan River. Discharge of oil into any storm sewer will be considered a violation of University environmental policy. RBHS will make every effort to prevent oil spills from reaching storm drains, and will under no circumstances treat the storm drain system as an acceptable means of spill control/containment.

13. Bulk Storage Tanks (40 CFR 112.8(c))

All above-ground and underground tanks at RBHS are constructed of steel or fiberglass, which is compatible with the petroleum products they contain under normal operating conditions.

Above-ground tanks are equipped with secondary containment or are located indoors with little potential for outdoor oil release. As described in Section 12, the tanks and their associated containments are not exposed to precipitation.

All underground tanks at the campus have been upgraded to meet current regulations regarding cathodic protection, or are constructed of fiberglass.

RBHS utilizes fail-safe engineering methods to prevent tank overfills. Facility personnel follow procedures prohibit the filling of a tank to more than 85 to 90 percent of its nameplate capacity. Most of the tanks are also equipped with audible/visual high level alarms which are set at 90% of capacity. Details on the specific equipment associated with each tank system are provided in Section 4.

14. Facility Transfer Operations (40 CFR 112.8(d))

All buried piping from underground tank systems at the RBHS facility is double-walled fiberglass, which meets regulatory requirements for corrosion protection and leak prevention.

Above-ground piping is located away from the flow of vehicular traffic. In addition, all piping supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

Most above ground piping is located indoors and is inspected regularly all pipelines which are not in service are capped and marked as to origin.

15. Spill Management Equipment

Spill response supplies and/or kits including storm drain covers, absorbent pigs (booms) and absorbent pads are positioned at significant oil storage areas to facilitate quick response to spills. Sorbents and related cleanup materials are stored near each primary oil storage area identified in Section 4 of this Plan.

The spill response supplies and/or kits are inspected in conjunction with the monthly oil storage area inspections to ensure that they are adequately stocked, easily accessible and functional.

16. Spill Response Procedures

Any employee who discovers an oil spill will immediately report the spill/release to REHS at 848-445-2550. Spills inside the boiler room should be reported to the Shift Supervisor.

During non-business hours, the Rutgers University Police Department (732-932-7211) should be notified of the spill and will in turn notify REHS personnel. REHS will initiate the campus Contingency Plan.

The Shift Supervisor or Spill Plan Emergency Coordinator will:

- 1. Take necessary steps to prevent injury to personnel, damage to equipment and fire hazards.
- 2. Initiate action to stop the spill and initiate defensive action to contain the spill and prevent run-off from exiting the building, reaching storm or sanitary sewers, or exiting plant property.
- 3. If the spill has entered the sanitary/storm water system, or exited Rutgers property, REHS must be notified immediately for reporting to regulatory agencies.
- 4. When reporting a spill/release, have as much of the following information in hand as possible:
 - Name and position of the reporting individual, phone number
 - Approximate starting and ending time of the spill
 - Location of spill/release
 - Type of Oil spill (#2 oil or Diesel)
 - Estimated amount of spill/release
 - Estimated amount of spill/release entering sanitary or storm sewer
 - What steps have been taken to contain the spill/release
- 5. The Spill Coordinator will contact the response contractor should be it be needed and will take responsible for any necessary follow-up action.
- 6. The Environmental Coordinator will determine whether regulatory agency notifications must be made.

17. Spill Notification and Reporting Procedures

17.1. Notification to State Agency (NJDEP)

New Jersey regulations require the reporting of any discharge onto the lands or waters of the state. This notification must be made immediately (defined as within 15 minutes of the time the responsible individual knew or should have known of the discharge).

If the discharge (1) has not entered waters of the state or migrated offsite, and (2) is completely contained, cleaned up and removed (including any contaminated soil) within 24 hours, the NJDEP <u>need not be called</u>, as long as the discharge does not have to be reported under any other state or federal rule or statute. However, the facility must still complete a discharge confirmation report, which will be kept in the Safety Coordinator's office for NJDEP Review in accordance with the recordkeeping requirements in this plan.

If notification is required, the following procedure must be followed.

Call the NJDEP at 1-877-927-6337. If this number is not operational for any reason, contact the State Police at 1-609-882-2000.

Provide the following information:

- Name, title, affiliation and phone number of the individual making the notification.
- Location of the discharge.
- The common name(s) of the material(s) discharged.
- Estimated quantities of materials discharged.
- Dates/times of the beginning, discovery, and (if applicable) end of the discharge.
- Actions proposed or underway to contain, clean up and remove the substances discharged.
- Name and address of the person responsible for the discharge.

Obtain the Case Number assigned to this notification. This number must be referenced on future correspondence regarding the releas

17.2. Notification to Federal Agencies

A discharge of oil must be reported to the National Response Center if the discharge causes a film or sheen upon, or discoloration of, the surface of the water or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. Waters include lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands.

National Response Center:	1-800-424-8802
EPA Region II:	732-548-8730

17.3 Written Reports

A report must be submitted to the EPA and NJDEP within 60 days of an event in which facility has discharged more than 1,000 U.S. gallons of oil into or upon the navigable waters of the U.S. or adjoining shorelines in a single spill event. Reports must also be submitted when a discharge of harmful quantities (i.e., sheen upon water) is released into or upon the navigable waters of the U.S. or adjoining shorelines in two reportable spill events that have each released more than 42 gallons. This report must contain the following information:

- 1. name of the facility;
- 2. name(s) of the owner or operator of the facility;
- 3. location of the facility;
- 4. date and year of initial facility operation;
- 5. maximum storage or handling capacity of the facility and normal daily throughput;
- 6. description of the facility, including maps, flow diagrams, and topographical maps;
- 7. a complete copy of the SPCC Plan with any amendments;
- 8. the cause(s) of such spill, including a failure analysis of system or sub-system in which he failure occurred;
- 9. the corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;
- 10. additional preventive measures taken or implemented to minimize the possibility of recurrence; and
- 11. such information as the Regional Administrator may reasonably require pertinent to the plan or spill event.

The report should be sent to EPA Region II, with a copy to the NJDEP.

U.S. Environmental Protection Agency Region II 290 Broadway New York, NY 10007 New Jersey Department of Environmental Protection Bureau of Discharge Prevention 401 East State Street, P.O. Box 424 Trenton, NJ 08625-0424

ATTN: Discharge Confirmation Report

If a regulatory agency requests a written report, the Emergency Coordinator must forward a copy.

18. Plan Review and Amendment (40 CFR 112.5)

This Plan will be reviewed, and revised accordingly, whenever there is a change in facility design, operation, maintenance or oil storage practices which could have an effect on oil discharge potential. At least once every five years, a comprehensive Plan review will be undertaken, and revisions/amendments will be made as appropriate.

In addition, RBHS will review the Plan at least once annually to check administrative details including names and phone numbers of designated response personnel and agencies. A log documenting annual review and minor modifications can be found on page iii of this Plan.

APPENDIX A FACILITY SITE DIAGRAMS

APPENDIX B OIL UNLOADING PROCEDURES

STANDARD OPERATING PROCEDURE – TANKER TRUCK UNLOADING

This standard operating procedure (SOP) is for the unloading of petroleum products only at Rutgers University. The SOP is intended to be used for unloading from tanker trucks into above ground or underground storage tanks.

Prior to Unloading

- 1. Ensure that tanker truck is positioned in approved location for unloading.
- 2. Make sure that parking brakes on tanker trucks are engaged. Secure the loading/unloading vehicle prior to transfer operations with physical barriers such as wheel chocks and interlocks, to safeguard against accidental movement and rupture of transfer lines.
- 3. If applicable to the storage location, verify that containment structures are intact and spill control equipment is readily available.
- 4. Inspect condition of all storage tank flanges, joints, connections, and outlets. Tighten, adjust, or replace as necessary prior to unloading.
- 5. Properly lock in the closed position all drainage valves in the secondary containment structure.
- 6. Closely examine the lowermost drain and all outlets of the tanker truck for leakage or defects. If necessary, properly tighten, adjust, or replace to prevent liquid leakage while in transit.
- 7. Establish adequate bonding/grounding of the tanker truck and receiving container before connecting to the fuel transfer point.
- 8. Keep hose ends tightly capped while moving hoses into position.
- 9. Position transfer hoses inside containment structures.
- 10. Check the pumping circuit and verify the proper alignment of valves.
- 11. Gauge storage tank to determine volume required.
- 12. Shut off motors of the tank truck when making and breaking hose connections. If unloading is done without requiring the use of the motor of the tank truck to operate pumps, keep the motor shut off throughout unloading.

DURING UNLOADING

- 1. The driver, operator and/or attendant of a tanker truck should remain in the immediate area but outside the vehicle during unloading.
- 2. When unloading, keep the internal and external valves on the receiving tank open.
- 3. Make sure that communication is maintained between the pumping and receiving operators at all times.
- 4. Periodically inspect the condition of the alligator clips, especially the joint between the bonding wire and the clip, to ensure effective bonding circuits.
- 5. Monitor all hose couplings during unloading.
- 6. Monitor the liquid level in the receiving tank during unloading to prevent overflow.
- 7. Monitor flow meters to determine rate of flow during unloading>
- 8. Reduce flow rate while topping off the tank to provide sufficient reaction time for pump shutdown without overflow of the receiving tank.

9. Never completely fill the receiving tank; provide a minimum of 1 percent ullage to prevent leakage due to thermal expansion.

Subsequent to Unloading

- 1. Make sure all material has been transferred to tank prior to disconnecting any transfer hoses.
- 2. Close all tank valves and tanker truck internal, external, and dome-cover valves before disconnecting.
- 3. Secure all hatches.
- 4. Disconnect grounding/bonding wires.
- 5. Prior to vehicle departure, make sure that all connections, fill lines, and grounding/bonding wires are disconnected.
- 6. Use a drip pan when breaking a connection.
- 7. Make sure that the hoses are drained, vented, or blown down, to remove the remaining oil before moving them away from their connections.
- 8. Cap the end of the hose or other connecting devices before moving them, to prevent uncontrolled oil leakage.
- 9. Disconnect, drain, and support out-of-service or standby hoses, to avoid crushing or excessive strain.
- 10. Cap associated hose risers.
- 11. Close all hose riser valves not in use.
- 12. Remove wheel chocks.

APPENDIX C MONTHLY INSPECTION FORM

MONTHLY FACILITY INSPECTION CHECKLIST

Location: Example - Generator Diesel AST (500 g)

Date:

Inspector:

ALL QUESTIONS ARE TO BE ANSWERED X = Satisfactory, N/A = Not Applicable, O = Repair or Adjustment Required Explain All "O" Answers in Comments / Remarks / Recommendations

Drainage (Out of Doors Areas)

Х	N/A	0		Х	N/A	0	
			Any noticeable oil sheen on runoff.				Tank surfaces checked for signs of leakage.
			Containment area drainage valves are closed and locked.				Tank condition good (no rusting, corrosion, pitting)
			Oil / Water separator systems working properly.				Bolts, rivets or seams are not damaged.
			Effluent from oil / water separator inspected.				Tank foundations intact.
			No visible oil sheen in containment area.				Level gauges and alarms working properly.
			No standing water in containment area.				Vents are not obstructed.
			Valves, flanges, and gaskets are free from leaks.				Containers properly labeled.
			Containment walls are intact.				Containment free of liquid (i.e. rain/product)

Truck Loading / Unloading Area

AST's

X	N/A	0		Х	N/A	0	
			No signs of corrosion damage to pipelines or supports.				Warning signs posted.
			Buried pipelines are not exposed.				No standing water in rack area.
			Out-of service pipes capped.				No leaks in hoses.
			Signs / barriers to protect pipelines from vehicles are in place				Drip pans not overflowing
			No leaks at valves, flanges or other fittings.				Catch basins free of contamination.
			Containment curbing or trenches are intact.				-
			Connections are capped or blank-flanged.				Drums/Containers & Oil Filled Equ
			-	X	N/A	0	

Security

Pipelines

X	N/A	0	_
			Fence and gates intact.
			Gates locked and secure.
			Entrance door secure.
			AST's locked when not in use.
			Starter controls for pumps locked when not in use.
			Lighting is working properly.

UST's

X	N/A	0	_
			Are sumps free of product/water/debris
			Are manways free of product/water/debris
			Are fill ports marked
			Have any alarms sounded in the last month
			Level gauges and alarms working properly.
			Vents are not obstructed.

uipment

 $\mathbf{N}\mathbf{A}$	U	
		Containers condition good (i.e. no bulging, no leaks)
		Containers properly labeled/identified (product or waste)
		Containers properly closed
		Proper containment
		Containment free of liquid (i.e. rain/product)
		Transformers in good condition

Spill Kit Supplies



Spill Kit on site / available

Comments / Remarks / Recommendations

APPENDIX D

SPILL RESPONSE PROCEDURES

RBHS – NEW BRUNSWICK CAMPUS OIL SPILL RESPONSE PROCEDURES

A. <u>Who is responsible for an oil spill response</u>

Physical Plant staffs who discover the oil spill

B. What is an oil spill response:

- 1. Notification of an oil spill
- 2. Contain the spill and prevent it from entering the sewer or storm drainage.
- 3. Clean up or supervise the clean-up of an oil spill
- 4. Make sure the spill response kits are available for an oil response

C. An oil spill indoor on a paved

<u>area:</u>

- 1. Immediately cover all nearby sewer sumps or sewer pits with oil spill pads to prevent oil from getting into the sewer system. No oil is allowed into the sewer system.
- Call the Supervisor or Emergency Coordinator and REHS to report the oil spill. The verbal reporting should include type of spill, location (building, room #), an estimated amounts, any oil enters the sewer system, any injuries, and name and phone number for contact.
- 3. Supervisor should designate available staffs to contain the oil spill from spreading with speedy-dri, oil spill pads, pigs or booms.
- 4. Find the source of oil leak and stop the leak ASAP.
- 5. Wear proper PPE and use proper spill response materials to clean up the spill.
- 6. Oil waste and oil soaked debris (pad, pigs, booms, speedy-dry, gloves) should be put into an empty container, label it as "waste oil and debris", and date.
- 7. Supervisor must report the oil spill immediately to Public Safety and EOHSS Environmental Coordinator if the spill is larger than 5 Gallons on an area which cannot be totally cleaned-up, or if any oil enters the sanitary or the storm water drains.
- 8. External Notification If the oil spill has entered the sanitary sewer system, REHS shall notify the oil spill immediately to:

NJDEP at 877-927-6337

- 9. If the spill is too large to handle, REHS will contact a contracted waste vendor to response to the spill.
- 10. Waste oil containers will be pick-up by designated vendor for recycling.

D. Oil Spill outdoors during truck loading to storage tanks:

- 1. Immediately cover any storm drain on the ground with pads, pigs or booms. No oil is allowed into the storm drain or catch basin.
- 2. Contain the oil spill from spreading with speedy-dri, oil spill pads, pigs or booms.
- 3. Find the source of leak and stop it immediately.
- 4. Supervisor should report to REHS if the spill is greater than 5 gallons.
- 5. Report the spill to Supervisor.
- 6. Clean up the spill including removal of contaminated soil.
- 7. Oil waste and oil soaked debris (pad, pigs, booms, speedy-dry, gloves) should be put into an empty container, label it as "oily debris", and date.
- 8. If the spill has impacted soil or if oil enters the stormwater drainage or catch basin, Supervisor must report the oil spill immediately to REHS.
- 9. External Notification:

If oil enters the storm drain or catch basin, REHS shall notify the following regulatory agencies immediately (within 15 minutes):

- NJDEP 877-927-6337
- o 24-hrs National Response Center 800-424-8802
- 10. Contact a waste vendor to clean up the spill if it is too large.

Field Spill Report Form

1.	Date of spill	Time		<u>a.m./p.m.</u>		
2.	Report From:		Title:			
3.	Location of spill:					
	Material spilled:					
5.	Any injuries or property	damaged? Yes	or No	lf yes	, explain:	
6.	Cause of spill? (Explain	in detail.)				
7. sp	Describe the scene in illed on, was spill contair					
8.	Describe clean-up actic	n taken in detail. Ho	w much mate	erial was no	t recovered?	
9.	Person involved in incid	ent:				
10	. List any emergency ag	encies at scene.				
11	. Are there any homes o	r businesses nearby	? Yes or	No	Distance?	
12	. Notification:					
Da	ate/tine:					
Сс	ontact Name:					
Сс	omments rec'd:					
Re	eport Number:					

13. Action taken to prevent recurrence.

Use back of form if additional space is needed for any item.

14. Signature _____

After completing this form, file copy one in the Spill Report file maintained by the Spill Plan Coordinator.

Date Received by Spill Plan Coordinator:

APPENDIX E

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Certification of the Applicability of the Substantial Harm Criteria

(40 CFR Part 112.20(e) – Appendix C to Part 112)

Facility Name: Rutgers Biomedical & Health Sciences Facility Address: 125 Paterson Street, New Brunswick, New Jersey 08901

- Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? Yes___No__X_
- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard. This will allow for the accumulation of precipitation within any aboveground oil storage tank area? Yes___No__X_
- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at 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 drinking water intake? Yes No X
- Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil 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 _	Mh	

Name (please type or print) Antonio M. Calcado

Title Senior Vice President Institutional Planning & Operations

Date	3	/8	Ĺ	16				
	(1						