SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN

TOWSON UNIVERSITY

TOWSON, MARYLAND

REVISED SEPTEMBER 21, 2001

REVISED AUGUST 21, 2002

REVISED JANUARY 28, 2003

REVISED DECEMBER 3, 2003

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REVISED NOVEMBER 5, 2013

REVISED JANUARY 7, 2015

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SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN

FOR

TOWSON UNIVERSITY
TOWSON, MARYLAND

1.0 Certification [40 CFR 112.3(d)]

I hereby certify that I have visited and examined Towson University (TU), and being familiar with the provisions of this Spill Prevention, Control, and Countermeasures (SPCC) regulations codified at 40 Code of Federal Regulations (CFR) Part 112 *et seq.* (40 CFR 112) and this SPCC plan, attest that this carefully thought-out SPCC plan was prepared in accordance with good engineering practices, including consideration of applicable industry standards and with the requirements of 40 CFR 112. Procedures for required inspections and testing have been established and this plan is adequate for this facility. Amendments subsequent to the date of this certification must be documented and certified, separately, by a Registered Professional Engineer as described in Section 2.0 of this plan.

Certifying Engineer: Laurence T. Brand, P.E.
Maryland Registration No. 200404
Air, Land and Water Engineering, Inc.
410-997-0395

Signature: _____

Certification Date:_____

Engineering Seal:

2.0 Review [40 CFR 112.5]

This plan will be reviewed and evaluated at least once every five years and within six months of a change in facility design, construction, operation, or maintenance that materially affects TU's spill potential. In response to the reviews, the SPCC plan will be amended within six months of the review date to include more effective prevention and control technology, if that technology has been proven in the field and will significantly reduce the likelihood of a spill. Amendments to this SPCC plan will be reviewed and certified by a Registered Professional Engineer per 40 CFR 112.3(d) and 112.5(c).

Review Date	**Signature**

Amendment Date	**Sections Amended**	**Signature**

3.0 Management Approval [40 CFR 112.3(d)]

We hereby certify that the management of TU extends its full approval of this SPCC plan and will commit the necessary resources to fully implement it as described herein. I understand that although this plan has been certified by a Registered Professional Engineer; we, as the Director of TU's Department of Environmental Health & Safety and Assistant Director of Operations & Maintenance, Facilities Management Department, remain ultimately responsible for the preparation of this SPCC plan, proper implementation of the provisions contained within, and compliance with the SPCC regulations. We certify that this SPCC plan will be reviewed and evaluated at least once every five years, as described and documented in Section 2.0 of this plan.

Name	Larry Holbrook
Title	Director of Environmental Health & Safety
Name	Rick Walsh
Title	Associate Director-Operations and Maintenance
Facility Name	Towson University
Facility Owner	State of Maryland

Signature _____ Date _____

Signature _____ Date _____

4.0 Facility Owner and Operator Information

Facility Name	Towson University
Facility Type	University Campus
Facility Location and Mailing Address	8000 York Road Towson, Maryland 21252
Hours of Normal Operation	24 Hours/day 7 Days/week
Facility Phone Number Working Hours After Hours	 (410) 704-3806/2488 (410) 704-4444 (24-hours) TU Police
Owner/Operator	State of Maryland
Mailing Address	Environmental Health and Safety/Facilities Management 8000 York Road Towson, Maryland 21252
Phone Number	(410) 704-3806/2488
Location of SPCC Plan [40 CFR 112.3(e)]	Department of Environmental Health and Safety Facilities Management Department
Drainage Basin	Lake Roland
Nearest Surface Water	Several tributaries of Towson Run Branch (runs through TU)

5.0 Personnel Responsibilities and Organization

The personnel responsible for implementing this SPCC plan are listed below. These persons are thoroughly familiar with the SPCC regulations and this SPCC plan and have overall responsibility for implementing this SPCC plan. They will maintain the records required under this SPCC plan and a copy of the complete current SPCC plan, as amended, for on-site review by EPA during normal working hours, as required by 40 CFR 112.3(e).

Mr. Larry Holbrook, Director of Environmental Health and Safety
(410) 704-3806 (Office)
(443) 603-4118 (cell)

Mr. Rick Walsh, Associate Director-Operations and Maintenance
(410) 704-2488 (Office)
(410) 808-5236 (Cell)

They are responsible for developing the plan, providing staff training, record keeping, updating the SPCC plan, coordinating and managing spill response. They are also responsible for overseeing inspections, scheduling preventative maintenance, enacting good housekeeping programs, and preparing annual inspection reports.

It should be noted that none of TU employees are to be designated "first responders" for incidents involving hazardous materials, including petroleum products. As such, the responsibility for response will be delegated to the appropriate personnel of the hazardous materials unit of the local fire department for stabilization of the situation and then to the spill response contractor for cleanup.

6.0 Purpose of the Plan

In accordance with the SPCC regulations (40 CFR 112 *et seq.*), TU has prepared this SPCC plan, which has three purposes. The plan's first purpose is to **prevent** oil from being released into the environment. The second purpose is to **control** discharges of oil to prevent spills from reaching navigable waters. The third purpose is to minimize the impact of a spill of oil that has reached a waterway using **countermeasures**.

The SPCC regulations apply and require the preparation of a SPCC plan when a non-transportation-related facility has aboveground storage of 1,320 gallons total or underground storage of 42,000 gallons and a release from this storage could reasonably be expected to discharge oil in harmful quantities into navigable waters of the United States. In 40 CFR 110.3 and 112.2, the underlined terms are defined.

Based upon ALWE's review of the regulations and associated guidance and the parameters of TU, as supplied by TU personnel, Brook concluded that TU is required to prepare and implement a SPCC plan [40 CFR 112.1], but is not required to submit the plan to the EPA Regional Administrator [40 CFR 112.4(a)]. If a release occurs, review the requirements of 40 CFR 112.4a to evaluate the necessity for EPA plan review.

ALWE concluded that TU is not a substantial harm facility and therefore not required to prepare and submit a Facility Response Plan (FRP) [40 CFR 112.20(f)]. Appendix E contains the *Certification That This Facility Does Not Pose Substantial Harm*, as required by Section 3 of Appendix C to 40 CFR 112

Appropriate personnel at TU will be trained in the elements of this plan, which is a reference document for TU personnel to use in the event of a spill and is intended to minimize releases and the ability of any releases to reach waterways. Any questions regarding this plan should be referred to Mr. Holbrook or Mr. Walsh. Training requirements are outlined in Section 11.10 of this plan.

7.0 Facility and Vicinity Information

7.1 Facility Description

The subject site is a university with academic, administrative, and residence buildings. The campus of TU is approximately 328 acres situated in the southwest corner of Burke Avenue and York Road in Towson, Maryland. The subject site contains two underground storage tanks (USTs), four (4) oil-water separator USTs, 14 emergency generator ASTs, and 19 oil-filled electrical transformers/switches that are included in the plan. Additional ASTs and transformers are on campus, but are not included in the plan since they are located inside buildings. The subject site also contains a hazardous waste storage facility and two vehicle maintenance locations, including the General Services Building with various size drums of lubricants, an AST used for waste oil, and an AST for motor oil, and the Landscaping Services Facility which has an UST for an oil-water separator. The Landscaping Services Facility also has one vehicle fueling AST (which has two internal compartments-one gasoline/one diesel). Drums of used oil are stored in the Landscaping building. Used grease from the kitchens and dining halls are stored in the loading dock areas of four buildings.

The approximate elevation of TU is 400 feet above mean sea level, with a rolling landscape across the campus. The local surface gradient in the area allows drainage into one of the several branches of Towson Run Branch, which crosses the campus. The regional surface gradient drains the branches into Lake Roland, approximately 1.5 miles to the west of TU.

The subject site is depicted on a site location map in Figure 1 and on a topographic map of the whole campus in Figure 2. In Figure 3 the tank locations are indicated on a campus wide drawing prepared by TU. Figure 4 shows the location of the AST for Burdick Hall. Figure 5 shows the locations of two ASTs next to the Landscaping Building. Figure 6 shows the locations of the two grease tanks at the University Union. Figure 7 shows the tank locations around Glen Towers. Figure 8 shows the locations of tanks near Psychology and Hawkins Hall. Figure 9 shows the locations of several tanks in the vicinity of the Power Plant.

7.2 Facility Drainage

Storm water inlets are located across the TU campus, collecting storm water, which is then routed into discharge into one of the several branches of Towson Run Branch, which crosses the campus. It is anticipated that spills at TU will migrate towards Towson Run Branch.

7.3 Storage Areas and Capacity

The campus contains two heating oil USTs, and four (4) oil-water separator UST. The subject site has various ASTs for storing fuel for emergency generators, heating oil, kerosene, vehicle fuel storage tanks, waste oil tanks, grease tanks, and oil-filled electrical transformers. Table 1, in section 9.0, lists the tanks on campus.

The subject site also contains a hazardous waste storage area, vehicle maintenance bays, and a vehicle fueling station. In addition, there are several small, miscellaneous oil storage containers across the facility. No portable oil storage areas or wastewater treatment plants are on campus.

The locations of TU's ASTs are described below:

- Emergency generator tanks are located at various buildings on campus. Most of the emergency generator ASTs are approximately 150-gallon, single-walled "belly" tanks. Table 1, in section 9.0, lists the tanks on campus.

- Electrical oil-filled transformers are located across the TU campus. Most of the electrical transformers are approximately 300-gallon, single-walled tanks with heat sink fins. Two larger electrical oil-filled transformers are located in a gravel filled area near the Power Plant.

- TU also has a 150-gallon double-walled waste oil AST and two (2) 275-gallon double- walled motor oil AST at the General Services Facility. Also stored at the General Services Facility are a portable generator with a 175 gallon diesel belly tank, and a 500 gallon portable skid-type AST for diesel or heating oil. Both of these portable units have secondary containment tanks.

- TU has a 240-gallon day tank, and a 3,000 gallon double-walled fuel tank AST at the Hawkins Hall/Psychology for an emergency generator that services the Educational complex. (Installed in 2010)

- TU has one 1,000-gallon, double-walled, double internal compartment AST at the Landscaping Services Facility for equipment fueling.

- Grease tanks or drums are located at the West Village Commons, Newell and Glen Dining and the University Union. These are stored on secondary spill pallets.

The locations of TU USTs are described below:

- Two, 30,000-gallon, No. 2 fuel oil tanks are located near the Power Plant. Both of these single wall steel tanks have been lined and a cathodic protection system installed. A Veeder Root monitoring system has also been installed with high and low level alarms.

TU has an EPA/State of Maryland permitted hazardous waste storage area where campus wastes are temporarily stored.

No field erected tanks are present on campus and therefore no brittle fracture evaluation is necessary.

Maryland does not have specific SPCC regulations, but they do have an UST program. The tanks at TU are in compliance with these requirements.

Spill response equipment is staged at the Power Plant, which is centrally located on campus; the General Services Facility, EHS's Equipment Storage Building, Facilities Management Vehicles (Director & Associate Director), EHS's Truck, as well as other locations on campus. In addition, an enclosed trailer with spill equipment plus additional resources supplies are stored in the General Services Truck Well.
NOTE: Signs will be posted to indicate locations

Other oils are found throughout TU in small quantities (typically 5 gallons or less). It is not expected that these oils present a reasonable potential for entering a waterway.

7.4 Process Areas

Vehicles and equipment are maintained and repaired inside of the General Services Buildings. Waste oil from the vehicles is collected and stored in a fifty-five-gallon drum and a 150-gallon AST. Both of these storage vessels have secondary containment.

A 735-gallon oil-water separator UST is located at the Landscaping Services Building. Vehicles/equipment are maintained and inspected here too. The UST will be checked periodically and emptied as needed.

An oil-water separator UST is located at the Newell building near the loading dock area and the Power Plant building. The UST will be checked periodically and emptied as needed.

7.5 Loading and Unloading Areas

There are numerous loading and unloading areas at TU. Most tanks are filled by trucks driven onto campus by outside contractors. The areas where the trucks park during filling are not dedicated and do not have secondary containment.

In each area where the trucks unload, TU will place containment booms and/or mats on and around the nearest downstream storm water inlet during unloading as necessary to prevent a spill from reaching a storm water inlet or stream.

Gasoline and diesel are loaded and unloaded from the one double compartment AST located outside of the Landscaping Services Facility. This AST was installed in summer of 2001. The unit has an emergency cut-off valve.

7.6 Sewer System

Storm water from TU is collected in numerous drop inlets and storm drains across campus and conveyed in the underground storm water system, which routes water into the streams that cross the campus.

TU's sanitary sewage is routed via separate underground pipes to the publicly owned treatment works (POTW). No release to navigable waters is expected from the sanitary sewers.

7.7 Vicinity Description

The TU campus is bordered by commercial, medical, residential, retail, and undeveloped land.

8.0 Spill History [40 CFR 112.7(a)]

With one exception, only minor releases of oil-containing materials have occurred at TU. The spills were reportedly confined to small areas surrounding the points of the release and were

contained on the property, with no oil reaching a waterway. According to TU's records, no spills of a harmful quantity have occurred in the last twelve months.

In June 1990, approximately 3,800 gallons of No. 2 fuel oil were inadvertently released during a transferring operations between the two USTs located at the Towson Center. Remedial activities occurred from August 1990 until at least June 1992. Soil and groundwater were impacted. The Maryland Department of the Environment (MDE) has been involved in the remedial efforts. MDE has closed this out; no additional remedial actions are required.

9.0 Potential Releases [40 CFR 112.7(b) and (c)(1)]

The following table includes information on potential releases:

Table 1: Potential Releases

Location	Type of Storage Tank	Total Approx. Volume * (Gallons)	Rate of Flow (Gallons/ Hour)	Predicted Flow Direction	Containment (Gallons)
Glen Complex D	AST	350	350	North to Stream	None
Glen Complex D	ET	366	366	North to Stream	None
Glen Complex Dining Hall	AST	150	150	North to Stream (through Dike)	None
Glen Complex Dining Hall	Grease Drums	Three 55	150	North to Stream	On Spill Pallet
Glen Complex Dining Hall	ET	366	366	North to Stream	513 Gallons (needs seal)
Glen Complex C	AST	350	350	East Across Parking Lot	None
Glen Complex C	ET	366	366	Northwest to storm drain	None
Glen Complex A	AST	350	350	North to storm drain	None
Glen Complex A	ET	366	366	North to storm drain	None
Glen Complex B	AST	350	350	North to stream	None
Glen Complex B	ET	366	366	North to stream	None
Stadium	ET (1)	275	275	South to storm drain	None
Landscaping Services	AST Gasoline/Diesel	1000 (500 gas/500 diesel)	1000	West to storm drain	Double-walled
Landscaping Services	Eight 55-gallon Drums	440	55	Oil water separator in building	On Spill Pallets
General Services	AST Diesel	500	500	Portable fuel tank: when at General Services, North to storm drain	Double-walled
General Services	AST	175	175	Portable generator: when at General Services, North to storm drain	Double-walled
Towson Center	ET	150	150	West to storm drain or stream	None
Burkshire	AST (inside)	270	100	North to storm drain	Concrete Flooring
Hawkins Hall/ Psychology	ASTs (inside under stairwell)	240 and 3,000	100	N/A (inside)	Double-walled
Health & Counseling Services	AST	335	335	North to street then storm drain	Double-walled
West Village Commons	Grease AST	150	150	West to storm drain at loading dock	On Spill Pallet

Public Safety	AST	1,700	1,700	To gravel area then down to drain in adjacent parking lot to the west	Double-walled
Location	**Type of Storage Tank**	**Total Approx. Volume * (Gallons)**	**Rate of Flow (Gallons/ Hour)**	**Predicted Flow Direction**	**Containment (Gallons)**
Power Plant	AST (inside)	1,000	100	N/A (inside)	Double-walled
Power Plant	AST (outside)	1,000	100	South to storm drain	Double-walled Convault
Power Plant	ET (2)	375 and 240	375 and 240	South to storm drain	None
Power Plant	ET (2)	Both 2,300	2300	Into gravel then into separator within enclosed area	None
Power Plant	UST (2)	30,000 (ea.)	100	To soils or north to storm drain	None
Cook Library	AST	150	150	North or northeast to storm drain	None
Linthicum Hall	AST	250	250	North to storm drain across parking lot	None
Linthicum Hall	ET	315	315	North to storm drain across parking lot	None
Prettyman	AST	150	150	Southwest to storm drain	None
Prettyman	ET	170	170	Southwest to storm drain	None
Towsontown Parking Garage	ET	112	112	Southeast to Stream	None
Health & Counseling Services	ET	263	263	Soils or west to stream	Moat with gravel
Burdick Hall	AST	150	150	South to storm drain	None
General Services	ET	265	265	West to storm drain	None
General Services	Motor Oil AST	275	275	South to storm drain	Double-walled
General Services	Waste Oil AST & (2) 55-gallon Drums	300 and (2) 55	150	South to storm drain	None (drums on spill pallets)
Media Center	ET	366	366	East	366 gallons (needs repair and enlargement)
University Union	Grease ASTs	Two 150	150	West to storm drain at bottom of ramp	None
Van Bokkelen	ET	315	315	East to trench drain	Gravel Area
Dowell Health Center	ET	366	366	Southwest to drain	None
Newell	Grease AST and Oil Water Separator UST	150 Grease	150	North to storm drain then into oil water separator UST	None

NOTE: University Union and Glen Garages have oil water separator USTs located in them

Truck Loading and Unloading Operations					
Truck Unloading at various ASTs and USTs	Rupture, Overfill, Piping Failure, Valve Failure	3,000	3,000	Various directions	Portable booms, mats, and sorbent materials
Fuel Area at General Services	Rupture, Overfill, Valve Failure	4,000	4,000	East to storm drain in street	Portable booms, mats, and sorbent materials

AST = Above ground storage tank for emergency generator
ET = Electrical transformer/switch (only outside ETs listed)
AST Diesel = Tank used for storing diesel motor vehicle fuel
AST Gasoline = Tank used for storing gasoline motor vehicle fuel

*Please note that the quantities are estimates and have not been verified.

Spill response equipment is staged at the Power Plant, which is centrally located on campus; the General Services Facility, EHS's Equipment Storage Building, Facilities Management Vehicles (Director & Associate Director), EHS's Truck, as well as other locations on campus. In addition, an enclosed trailer with spill equipment plus additional resources supplies are stored in the General Services Truck Well.

In addition, TU has a local outside oil response contractor (Triumvirate Environmental of Baltimore, Maryland) available to assist in the employing controls and countermeasures and spill response and cleanup. The contractor is available 24 hours a day (800) 966-9282 and will deploy a response team immediately upon authorization by TU. The recovered oil will be properly disposed of or treated by Triumvirate.

10.0 Impracticability of Containment/Diversionary Structures and Equipment [40 CFR 112.7(d) and (e)]

Due to the potential electrical hazard that may be created by the installation of containment dikes around the electrical transformers and switches, TU will maintain a thorough periodic inspection program for electrical equipment with oil storage.

TU has implemented a testing program using ultrasonic pulse-echo equipment to check the thickness of the metal walls of the outdoor ASTs that are considered bulk storage tanks (excludes the electrical switches and transformers). The test results are included in Appendix G. Two walls of each tank were tested. See Section 11.2.6 for additional information on the testing program. The tests will be performed as directed by the University's consultant. ASTs whose wall thickness is considered a substantial risk will be eventually replaced.

11.0 Release Prevention and Containment Procedures

11.1 Drainage Control [40 CFR 112.7(c) and 112.8 (b)]

Drainage control at TU is not specifically designed to contain spills. If a spill were to reach the storm drain, it would be routed to one of the streams that cross the campus.

TU will replace all oil filled electrical transformers and switches at the end of their service life. Transformers will be replaced with either a dry type or oil filled. The determination of which type (dry or oil) will be based on numerous factors such as efficiency, operating costs, service life, energy savings, safety, vandalism, etc. Oil switches will be replaced with dry types. Service life will be determined by an outside electrical testing contractor on an annual basis. In cases where transformers are leaking, they will be repaired, if feasible. Leaking oil switches will be replaced with dry types.

11.1.1 Drainage Control In Bermed Storage Areas

There are two bermed electrical transformers at TU: Glen Complex Dining Hall, and the Media Center. The two bermed storage areas require additional work to effectively contain leaks. None of the storage areas are covered.

Valves are not currently used on TU's bermed storage areas—all areas are closed, without drains, except for the Power Plant. Portable pumps will be used to empty bermed areas, after inspection to ensure that oil-containing water is not released. Inspections for oil releases will occur monthly. Oil-contaminated water will be pumped into suitable containers or absorbed for proper off-site treatment or disposal.

If TU installs bermed areas in the future, they will be equipped with a manual, open-and-closed design valve system so that the berm may be emptied, after inspection to ensure that oil-containing water is not released. When not in use, the valve will be locked in the closed position. No flapper-type drain valves will be authorized at TU.

11.1.2 Plant Drainage Systems for Unbermed Areas

Drainage structures specifically designed to control releases at TU are limited. If spilled material were to reach a storm drain at TU, it would be routed to one of the streams that cross the campus. It may be possible to contain some spills by skimming the water surface of the streams, however spills occurring during storm events may limit the potential for skimming.

11.1.3 Final Drainage Discharge

The streams that cross the TU campus discharge to Towson Run Branch, which is tributary of Lake Roland.

11.1.4 Drainage Systems

TU does not have a drainage system or a water treatment unit. If a drainage system is installed in the future, the system will be designed to prevent oil from reaching a waterway in the event of equipment failure or human error.

11.2 Bulk Storage Containers [40 CFR 112.8 (c)]

11.2.1 Tank Compatibility

The construction materials for the tanks at TU are compatible with their contents.

11.2.2 Secondary Containment

Several of the storage tanks are of double wall construction and this meets the secondary containment requirement. There are several emergency generator tanks that do not currently have secondary containment. There are two bermed storage areas at TU: Glen Complex Dining Hall, and the Media Center. The two require additional work to become effective in containing spills. None of the storage areas are covered.

The bermed secondary containment area at the Glen Complex Dining Center is large enough to fully contain the volume of oil contained in the equipment tank plus sufficient freeboard to allow for precipitation.

All materials used to construct berms in the future will be compatible with the materials that they will hold and sufficiently impervious to oil.

11.2.3 Rainwater Drainage

The bermed areas currently at TU are not covered and therefore collect rainwater. TU intends to ensure that rainwater that collects in the berms will be visually inspected monthly for sheens and other indications of oil before being discharged from the bermed area. If oil is found, it will be properly collected and disposed. If necessary an oil response contractor will be contacted and the oil-contaminated water will be pumped out into a vacuum truck or another suitable container for off-site disposal.

If installed in the future, bypass valves will be normally sealed closed and opened and resealed only under responsible supervision. Records of the inspections, openings, and resealing events will be maintained by TU.

11.2.4 Corrosion Protection of Buried Metallic Storage Tanks

There are two (2) buried metallic storage tanks (the USTs) at TU. They are protected from corrosion per the 1998 upgrade requirements (40 CFR 280) and subjected to regular testing. Inspection records are kept by TU. The most recent cathodic system testing was completed on January 27, 2015. The cathodic protection system testing will be performed annually.

Cleaning, visual inspection, and precision leak testing of the two (2) 30,000 gallon UST's located at the Power Plant were performed on May 29, June 9, June 18 and June 26, 2003. They all passed. Results were submitted to MDE as required. Additional internal tank cleaning was accomplished in May 2008 and . A Petro scope interior tank inspection and cleaning occurred on January 28, 2015. Both tanks passed.

New oil pumps and underground supply and return lines were installed at the Power Plant in November 2007. Systems were tested and passed. Also at the Power Plant, a new cathodic protection system including rectifier was installed in May 2008 and a new Veeder Root tank oil level monitoring system for the USTs was installed in the June 2008.

If buried metallic storage tanks are installed at TU in the future, they will be protected from corrosion per the 1998 upgrade requirements (40 CFR 280) and subjected to regular tightness testing. Inspection records will be kept by TU.

11.2.5 Corrosion Protection of Partially Buried Metallic Storage Tanks

There are no partially buried metallic storage tanks at TU. If partially buried metallic storage tanks are installed at TU in the future, they will be protected from corrosion to the equivalent of the 1998 upgrade requirements (40 CFR 280).

11.2.6 Aboveground Tank Periodic Integrity Tests

Personnel trained to identify potential and existing releases will periodically visually inspect the ASTs, including tanks, supports, foundations, and associated piping for signs of deterioration, leaks, and accumulation of oil inside bermed areas. Repairs to the containers and spill containment structures, along with cleanup of debris and minor spills, will be performed as needed. Inspection records will be kept by Facilities Management.

In addition to the visual inspections, a testing program, including periodic ultrasonic thickness testing and integrity testing, has been implemented by TU for ASTs that are outdoors. An initial round of tests was performed in January 2003 to develop baseline thickness levels. Additional rounds of testing were performed in October 2003, January 2005, October 2006 and October 2008. After testing indicated some loss of thickness in the AST in the Power Plant used to store kerosene and the gasoline AST at the General Services building these tanks were removed. The test results are located in Appendix G. No significant loss of steel thickness was measured in the 2008 testing round of seven selected ASTs.

Periodic ultrasonic thickness test will be performed on each of the outdoor tanks to evaluate the integrity of the tanks. The Steel Tank Institute's SP001 standard (dated July 2005) recommends that above ground shop-fabricated tanks that are in contact with the ground, and without spill containment be tested by ultrasonic methods, leak tested and have a formal external inspection at least every 10 years. This is in addition to the monthly and annual periodic inspections the owner performs. TU will perform the tank testing and inspections at least this frequently.

11.2.7 Control of Leakage Through Internal Heating Coils

None of the tanks at TU have internal heating coils.

11.2.8 Tank Installation Fail-safe Engineering

The ASTs at TU are equipped with visual level indicators that operate on a float system. Loading/filling procedures call for tanks to be filled to a safe height, which has been determined to be 90 percent of capacity.

The fill port and vent pipe for each tank will be clearly identified with its own sign and markings.

The USTs are equipped with a Veeder Root or an Incon Tank Sentinel with Statistical Automatic Leak Detection monitoring system. The TU personnel responsible for the UST filling operations have been trained on the proper use and maintenance of the monitoring system. It is not expected that USTs have a reasonable potential to immediately discharge to a waterway, as the release would likely be contained, at least initially, in the surrounding soils.

The loading/unloading operations at the storage tanks present the potential for spill resultant of overfilling. The USTs are equipped with catch basins to contain minor spills from overfills.
The alarms and other alerts will be tested regularly and repaired when proper operation is hindered.

For future tank installations, high level sensors with audible and visible alarms, whistler vents, high-level automatic flow cutoff devices, and other communication devices will be considered.

11.2.9 Plant Effluent Discharges

TU does not have process effluent discharges or disposal facilities, beyond bermed areas. Bermed areas are visually inspected prior to discharge to ensure that the water discharged does not have a sheen or other indications of oil.

11.2.10 Visible Oil Leaks

Facility personnel are trained to visually inspect tank seams, gaskets, rivets, bolts, flanges, and joints for visible oil leaks. Oil leaks and/or spills are to be reported immediately to EHS and corrected as soon as possible. EHS personnel will evaluate the situation to determine what response and reporting is required (see Appendix D for Oil Spill Emergency Response Plan).

11.2.11 Mobile or Portable Oil Storage Containers [40 CFR 112.8(c)(11)]

TU does not currently have any mobile or portable oil storage tanks. If such tanks are employed at TU in the future, secondary containment will be provided. They will not be located in areas of periodic flooding or washout.

11.3 Facility Transfer Operations [40 CFR 112.8(d)]

11.3.1 Buried Piping Installation Protection and Examination

The two steel heating oil USTs at TU have buried piping. The piping for the USTs is cathodically protected. Additionally, the USTs and its piping system are periodically tested using the Veeder Root or Incon systems.

If buried piping is exposed in the future, it will be carefully examined by an inspector for deterioration, corrosion, and other damage. The use of buried piping will be kept to a minimum in the future.

11.3.2 Out-of-Service and Standby Service Pipes

There are no known out-of-service or standby terminal connections at TU. When pipes are taken out of service or into standby service for an extended period, the pipes will be clearly marked and capped or blank-flanged to prevent inadvertent use. Tank contents will be emptied or periodically monitored. In the event of an unexpected loss of material, TU will undertake any necessary remedial action.

11.3.3 Piping Support Design

The piping at TU appears to be properly supported and constructed, decreasing the possibility of abrasion or corrosion and allowing for expansion and contraction.

Pipe supports employed in the future will be designed to minimize abrasion and corrosion and allow for expansion and contraction.

11.3.4 Aboveground Valve and Pipeline Examination

Above ground piping is used on some of the emergency generator ASTs. Aboveground piping systems are inspected monthly. Monthly inspections include assessing the general condition of the flanges, joints, valves, piping supports, and metal surfaces.

11.3.5 Aboveground Piping Protection from Vehicle Traffic

The aboveground piping systems at TU are not subject to vehicular traffic.

If additional aboveground piping is installed at TU in the future, signs will be posted warning vehicles of endangered piping and applicable height restrictions. Physical barriers will be considered.

11.4 Facility Tank Car and Truck Loading and Unloading Operations [40 CFR 112.7(h)]

TU receives oil in trucks supplied by others. The vehicles load oil into the various tanks at TU. The only regular authorized unloading operations are into vehicles owned or operated by TU. The tanks on those vehicles are designed to carry fuel for consumption by only that vehicle.

A trained representative from TU's Facilities Management Department will be present to observe all loading and unloading operations. Facility standard operating procedures for loading and unloading operations will be developed and circulated. A copy is included in Appendix C.

11.4.1 Department of Transportation Regulations

TU will require that the oil delivery companies drivers sent to TU are trained and will comply with Department of Transportation (DOT) regulations (49 CFR 177) and facility standard operating procedures for loading and unloading operations. The truck drivers will be instructed by their own dispatchers to make no deliveries or pick-ups unless a TU representative is present to authorize, direct, and oversee loading and unloading operations.

11.4.2 Secondary Containment for Vehicles

There are currently no catch basins, treatment systems, or secondary containment systems for loading/unloading operations at TU.

TU will install curbing systems and/or seal down gradient storm-water drains while trucks load oil into tanks. Granular sorbent material will be available to the fueling operators to contain spills.

11.4.3 Warning or Barrier System for Vehicles

Warning signs will be posted at loading and unloading areas informing personnel that they must examine transfer lines to ensure that they are completely disconnected before departing. In addition, wheel chocks will be employed.

11.4.4 Lowermost Drainage Outlet Examination

Warning signs will be posted at loading and unloading areas informing personnel that they must examine all drains and other outlets for leakage before and after oil loading operations. In addition, the area in which the loading occurred will be examined for evidence of leaks, spills, or other releases.

11.5 Oil Production Facilities (Onshore) [40 CFR 112.9]

TU is not an oil production facility and therefore this section of the SPCC regulations is not applicable to TU.

11.6 Oil Drilling and Work Over Facilities (Onshore) [40 CFR 112.10]

TU is not an oil drilling and work over facility and therefore this section of the SPCC regulations is not applicable to TU.

11.7 Oil Drilling, Production, or Work Over Facilities (Offshore) [40 CFR 112.11]

TU is not an oil drilling and work over facility and therefore this section of the SPCC regulations is not applicable to TU.

11.8 Inspections, Tests, and Records [40 CFR 112.7(c) and 112.8 (c)]

Facility personnel will be trained to be observant during normal operations for signs of malfunctions or problems that might lead to leaks, spills, or other releases.

Monthly visual inspections will be conducted for oil storage tanks, piping, pumps, and drum storage areas to identify leaks, seepage, stained soils, or signs of significant deterioration. Identifiable accumulations of oil will be cleaned-up promptly and the cause of the accumulation will be determined and repaired. Abnormal tank conditions and repairs made will be reported to Mr. Hughes. Any leaks, spill response or breach in tank integrity will be recorded in the tank inspection checklist located in Appendix A.

TU will be responsible for ensuring that the required inspections, training, and tests are conducted; signing the reports of those activities; and keeping the reports and associated records for at least three years.

11.9 Security [112.7(g)]

TU is an unsecured facility with minimal fencing or other barriers to public access. TU will ensure that pipeline connections are securely capped and locked when not in use. Drains and valves will be locked in the closed position.

11.10 Personnel Training [112.7(f)]

TU will conduct annual training sessions to instruct staff in proper housekeeping; operation and maintenance of equipment; laws and regulations; spill prevention, detection, and response activities; and notification requirements. A more detailed outline of the training program is provided below.

a. Personnel responsible for duties set forth under the SPCC plan are thoroughly familiar with the plan and its requirements.

b. Personnel who may become directly involved with a release will be trained, including oil-handling personnel. The training will address regulations, known spill events and failures, loading/unloading operations, malfunctioning components, and precautionary measures. Training sessions may include timed practice placement of control and countermeasure devices and materials and other simulations of spills.

c. Training sessions will be conducted at intervals frequent enough so that an adequate understanding of the SPCC plan is achieved. A record of attendance will be kept. At a minimum, training sessions will be held annually.

d. Employees who may become directly involved in a spill will be trained on how to prevent spills according to this SPCC plan and good management practices.

e. None of the employees are to be designated “first responders” for incidents involving hazardous materials, including petroleum products. As such, the responsibility for response will be delegated to the appropriate personnel of the

hazardous materials unit of the local fire department for stabilization of the situation and then to the spill response contractor for cleanup.

12.0 Facility Response Plans [40 CFR 112.20]

ALWE concluded that TU is not a substantial harm facility as defined in 40 CFR 112.20(f) and therefore not required to prepare and submit a Facility Response Plan (FRP). Appendix E contains the *Certification That This Facility Does Not Pose Substantial Harm*, as required by Section 3 of Appendix C to 40 CFR 112. This has been signed and certified by a representative of TU.

13.0 Facility Response Training and Drills/Exercises [40 CFR 112.20]

Since the facility is not a substantial harm facility (Section 12), this section is not applicable to TU.

APPENDIX A

INSPECTION GUIDELINES AND CHECKLIST

Inspection Guidelines

The following inspection guidelines are to be used by employees during routine inspections.

1. Aboveground tanks: Conduct visual inspection monthly, report all leaks promptly; inventory tanks weekly using level indicators and conversion tables (inches of product to gallons).
2. Aboveground piping: Conduct visual inspection of pipes and supports monthly, report all leaks promptly.
3. Underground tanks: Conduct visual inspection of grounds around tank and inspect inventory/leak monitor records monthly, report unusual odors and stains and discrepancies, immediately. Test the tanks monthly with the Veeder Root or Incon leak detection system in accordance with manufacturer's recommendations (monitoring of the rectifier current output measurements from the cathodic protection system will be performed every year by an outside contractor). Should variation in output be noted an investigation will be conducted.
4. Valves, gaskets, and flanges: Conduct visual inspection monthly; report all leaks immediately.
5. Drum Storage Areas: Conduct visual inspection monthly, report all leaks immediately.
4. Diked areas: Conduct visual inspection monthly, report all leaks immediately.
5. Security: Perform visual inspection of fence and lighting monthly, inspect for vandalism monthly, report break-ins, vandalism, fence deterioration, and lighting outages immediately.
6. Spill prevention equipment: Inventory supplies monthly and after use, submit list of needed supplies immediately.
7. Perform preventative maintenance per the equipment-specific schedule.

APPENDIX B

TRAINING RECORDS

Training Records

As part of the SPCC training procedures, the following employees have been trained in the elements of the SPCC plan, which is a reference document for facility personnel to use in the event of a spill and is intended to minimize releases and the ability of releases to reach waterways. Specific procedures for inspections, spill identification, proper housekeeping, spill response, and notification requirements have been provided to the following employees.

Name	Signature	Date

APPENDIX C

LOADING/UNLOADING PROCEDURES

Loading and Unloading Procedures

Purpose: to provide for oil transfers from tank trucks to the on-site tanks and from the on-site tanks to vehicles, drums, and other containers minimizing the potential for leaks, spills, and other releases. The oil loading/filling process is controlled by the tank truck operator and is assisted by TU personnel. Sorbent blocking materials will be placed around storm-water drains and drop-inlets during loading/filling operations.

General Procedures for Fuel Oil Loading/Unloading

A. Check tanker manifest for proper oil type and quantity. Verify quantity in and capacity of tanker.

B. Gauge the tank and use the dipstick readings to calculate the amount of product currently in tank. Determine if the amount of oil being delivered can be accepted in the tank, thereby preventing overfills.

C. Ensure that the tanker engine has been turned off and there are no other sources of ignition.

D. Verify that the handbrake has been set on the tanker and have the driver place wheel chocks at the front and rear tires to prevent movement of the tanker during fueling operations.

E. Block down gradient storm drain inlets and place portable sorbent booms in position to catch possible spills.

F. Ensure that hoses have been properly connected prior to commencing loading/unloading operations and that the tanker is vented. Operations shall not commence if leaks at the connection points or in the hose are observed.

G. Observe the loading operations.

H. Immediately report any spill and take appropriate measures.

I. Ensure that valves have been closed and hoses have been emptied and disconnected, prior to authorizing the driver to disengage.

J. Verify the quantity of oil delivered using dipstick readings and reconcile with the delivery ticket.

K. Remove the wheel chocks, drain blocks, and booms and return them to their storage area.

L. Immediately report any spill and take appropriate measures.

APPENDIX D

OIL SPILL EMERGENCY RESPONSE PLAN

EMERGENCY RESPONSE PLAN

OIL SPILLS

In the event of an oil spill, the following action will be taken:

1. (a) Notify all persons listed below:

	CAMPUS #	Cell Phone #
Warren Riefner, Director-Operations & Maintenance	4-2491	410-916-8377
Larry Holbrook, Director Environmental Health & Safety	4-3806	443-603-4118
Rick Walsh, Associate Director	4-2488	410-808-5236
Wade Keeney, Chief Engineer	4-2527	410-365-0062
Joe Laumann, Chief Electrician	4-3432	410-387-6531
Dave Sies, Plumbing Sup.	4-2714	443-970-2471
Kevin Petersen, Assoc. VP Facilities Management	4-2487	240-357-3307
Robert Keenan, Grounds Manager	4-2483	410-808-1030

2. The following agencies will be notified by Facilities Management/EHS. Notification must be made no later than two (2) hours after detection of the spill.

Maryland Department of Environment
410-631-3386 (during normal office hours)
410-974-3551 (after normal office hours)
U.S. Coast Guard
410-962-5105 (Baltimore Marine Safety Office) or
1-800-424-8802 (National Response Center)

3. Containment and clean-up procedure:

(a) 1. Place containment booms at the intersection of storm drain with Towson Run.

2. Place Absorbent "C" behind boom.

(b) Survey stream to ascertain extent of travel of oil spill. Place booms and absorbent as in (a) 1 and (a) 2 above at furthest point downstream (prior to Charles Street) beyond area where oil is detected.

(c) Remove oil saturated absorbent material and place in leak proof 55-gallon drums.

(d) Proceed to source of spill, spread absorbent material, and collect oil saturated absorbent in 55-gallon leak proof 55 drums.

(e) Flush storm drain with water and repeat steps (a) 2 and (c) above. Continue this process until all oil has been retrieved.

(f) The ranking Facilities Management Manager/EHS Representative at the scene will make a visual inspection of Towson Run and areas affected by oil spill to ascertain that in fact all oil has been recovered.

(g) If the size of the oil spill exceeds the capability of TU personnel to handle, the following outside contractor should be contacted by the ranking Facilities Management Manager/EHS Representative present:

Triumvirate Environmental

Baltimore, Maryland 21226

Telephone: 800-966-9282

(h) Contact authorized waste oil disposal company to dispose of 55-gallon drums containing oil saturated absorbent material.

4. The following is available for spill control at the General Service Facility:

(a) Shovels, rakes, etc., from Grounds and Transportation Departments.

(b) Back hoe and pay loader from Grounds and Transportation Departments.

(c) 40 - 8-inch x 18-inch absorbent pillows

(d) 22 - 8-inch x 18-foot absorbent booms

(e) 10 - fabric socks

(f) 4 - 4-foot x 200-foot absorbent rolls (1 medium and 3 heavy duty)

(g) 2 - 20-gallon lockable spill waste containers

(h) 1- Spill Blocker (rough surface)

(i) 1- PIG Conical Drain Plug Kit

(j) 2 - Round Drain Blockers

(k) 1 - PIG Drain Blocker Plug (48 in.)

(l) 2 - PIG Oil Only Spill Pads (16 ½ in. x 20 in.) 200/bag

(m) 4 – PIG Spill Kits (1 each in Assoc. Director/Trades Mgr. Vehicles). Each kit contains 3-3 in. x 48 in. PIG socks, 12-16 ½ in. x 20 in. PIG mats-double pads and disposal bags.

NOTE: additional resources/supplies will be maintained at the Power Plant

APPENDIX E

CERTIFICATION OF APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

CERTIFICATION OF APPLICABILITY OF THE

SUBSTANTIAL HARM CRITERIA

Facility Name: Towson University

Facility Address: 8000 York Road, Towson, MD

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 X no

2. Does the facility have a total oil storage capacity greater than 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 X no

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (See Appendix E to this part, section 10, for availability) and the applicable Area Contingency Plan.

   _____ yes X no

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?

   _____ yes X no

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons with the last 5 years?

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[1] If a comparable formula is used documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR 112, public drinking water intakes are defined to be public water systems as defined in 40 CFR 143.2(c).

_____ yes ___X___ no

CERTIFICATION:

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

_____	_____
Signature	Signature
Lawrence A. Holbrook	Rick Walsh
Name	Name
Director of Environmental Health and Safety	Associate Director-Operations & Maintenance
Title	Title
_____	_____
Date	Date

APPENDIX F

REPLACEMENT SCHEDULE

APPENDIX G

AST WALL THICKNESS TEST RESULTS

APPENDIX H

CROSS REFERENCE TO REGULATIONS

SPCC Cross-Reference

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* Only selected excerpts of relevant rule text are provided. For a complete list of SPCC requirements, refer to the full text of 40 CFR part 112.

FIGURES