DRAFT SPCC PLAN

This example Spill Prevention, Control and Countermeasure (SPCC) Plan is intended to provide BEC with examples and illustrations of the final SPCC plan to be prepared for the Wilson City Power Station upon completion. The Draft SPCC plan is derived from the US EPA to provide illustrative examples of the type and amount of information that is appropriate SPCC Plan language for the proposed power plant.

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

Bahamas Electricity Corporation
Wilson City Power Station
Abaco, Bahamas

EXAMPLE PLAN
TO BE PREPARED
AT COMPLETION OF FACILITY

June 7, 2007

Version 1.0, 11/28/2005

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LIST OF ACRONYMS AND ABBREVIATIONS

AST	Aboveground Storage Tank
EPA	U.S. Environmental Protection Agency
NPDES	National Pollutant Discharge Elimination System
PE	Professional Engineer
POTW	Publicly Owned Treatment Works
SPCC	Spill Prevention, Control, and Countermeasure
STI	Steel Tank Institute
UST	Underground Storage Tank

INTRODUCTION

The purpose of this Spill Prevention, Control, and Countermeasure (SPCC) Plan is to describe measures implemented by Wilson City Station to prevent oil discharges from occurring, and to prepare Wilson City Station to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge. This Plan has been prepared to meet the requirements of US EPA, Title 40, Code of Federal Regulations, Part 112 (40 CFR part 112).

This SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with employees, as a guide to facility inspections, and as a resource during emergency response.

Wilson City Station management has determined that this facility does/does not pose a risk of substantial harm under 40 CFR part 112, as recorded in the "Substantial Harm Determination" included in Appendix B of this Plan.

This Plan provides guidance on key actions that Wilson City Station must perform to comply with the SPCC rule:

- Complete monthly and annual site inspections as outlined in the Inspection, Tests, and Records section of this Plan (Section 3.7) using the inspection checklists included in Appendix C.

- Perform preventive maintenance of equipment, secondary containment systems, and discharge prevention systems described in this Plan as needed to keep them in proper operating conditions.

- Conduct annual employee training as outlined in the Personnel, Training, and Spill Prevention Procedures section of this Plan (Section 3.8) and document them on the log included in Appendix E.

- If either of the following occurs, submit the SPCC Plan to the BEST Commission, and the Environmental Safety & Health Manager (BEC) Nassau, along with other information as detailed in Section 5.4 of this Plan:

- The facility discharges more than 1,000 gallons of oil land or waters of the adjoining shorelines in a single spill event; or

- The facility discharges oil in quantity greater than 42 gallons in each of two spill events within any 12-month period.

- Review the SPCC Plan annually and amend it to include more effective prevention and control technology, if such technology will significantly reduce

the likelihood of a spill event and has been proven effective in the field at the time of the review. Plan amendments, other than administrative changes discussed above, must be recertified by the BEC Plant Manager on the certification page in Section 1.2 of this Plan.

- Amend the SPCC Plan within six (6) months whenever where is a change in facility design, construction, operation, or maintenance that materially affects the facility's spill potential. The revised Plan must be recertified by a the Plant Manager

- Review the Plan on an annual basis. Update the Plan to reflect any "administrative changes" that are applicable, such as personnel changes or revisions to contact information, such as phone numbers. Administrative changes must be documented in the Plan review log of Section 1.4 of this Plan, but do not have to be certified by the Plant Manager.

1.0 PLAN ADMINISTRATION

1.1 MANAGEMENT APPROVAL AND DESIGNATED PERSON

Wilson City Station Company ("Wilson City Station') is committed to preventing discharges of oil to navigable waters and the environment, and to maintaining the highest standards for spill prevention control and countermeasures through the implementation and regular review and amendment to the Plan. This SPCC Plan has the full approval of Wilson City Station management. Wilson City Station has committed the necessary resources to implement the measures described in this Plan.

The Facility Manager is the Designated Person Accountable for Oil Spill Prevention at the facility and has the authority to commit the necessary resources to implement this Plan.

Authorized Facility Representative (facility response coordinator):

Signature:	
Name	Kermit McCartney
Title:	Facility Manager
Date:	June 1, 2007

1.2 LOCATION OF SPCC PLAN

A complete copy of this SPCC Plan is maintained at the facility in the Administration building at the front. The front office is attended whenever the facility is operating, i.e., 7:00 AM to 5:00 PM, 6 days per week (closed on Sundays). Additional copies reside with the facility manager, and the Environmental Safety & Health officer.

1.3 PLAN REVIEW

1.4.1 CHANGES IN FACILITY CONFIGURATION

In accordance with the Plan, Wilson City Station periodically reviews and evaluates this SPCC Plan for any change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for an oil discharge, including, but not limited to:

- commissioning of containers;
- reconstruction, replacement, or installation of piping systems;
- construction or demolition that might alter secondary containment structures; or
- changes of product or service, revisions to standard operation, modification of testing/inspection procedures, and use of new or modified industry standards or maintenance procedures.

Amendments to the Plan made to address changes of this nature are referred to as technical amendments, and must be certified by the Plant Manager. Non-technical amendments can be done (and must be documented in this section) by a facility operator, as designated by the facility manager. Non-technical amendments include the following:

- change in the name or contact information (i.e., telephone numbers) of individuals responsible for the implementation of this Plan; or
- change in the name or contact information of spill response or cleanup contractors.

Wilson City Station must make the needed revisions to the SPCC Plan as soon as possible, but no later than six months after the change occurs. The Plan must be implemented as soon as possible following any technical amendment, but no later than six months from the date of the amendment. The Facility Manager is responsible for initiating and coordinating revisions to the SPCC Plan.

1.4.2 SCHEDULED PLAN REVIEWS

Wilson City Station proposes to review this SPCC Plan at least annually. Revisions to the Plan, if needed, are made within six months of the review. The last SPCC review occurred on June 7, 2007. This Plan is dated June 7, 2008 or at the completion of construction of the proposed power plant (which ever occurs first). The next plan review is therefore scheduled to take place on or prior to June 7, 2009.

1.4.3 RECORD OF PLAN REVIEWS

Scheduled reviews and Plan amendments are recorded in the Plan Review Log (Table 1-1). This log must be completed even if no amendment is made to the Plan as a result of the review. Unless a technical or administrative change prompts an earlier review of the Plan, the next scheduled review of this Plan must occur by June 7, 2008.

1.5 FACILITIES, PROCEDURES, METHODS, OR EQUIPMENT NOT YET FULLY OPERATIONAL

Bulk storage containers at this facility have never been tested for integrity since their installation in 2008. Section 4.2.6 of this Plan describes the inspection program to be implemented by the facility following a regular schedule, including the dates by which each of the bulk storage containers must be tested.

2.0 GENERAL FACILITY INFORMATION

2.1 LOCATION AND ACTIVITIES

The proposed site is located at Wilson City will include 25 acres of land with an additional 75 acres for future expansion and buffer zone. The power plant site is located on the south of Wilson City Road. The proposed power plant will include the powerhouse within which will be installed 4 x 12 Megawatt (MW) engines fueled by Heavy Fuel Oil (Bunker C). The proposed facilities will almost double the nominal generating capacity from the installed capacity at Marsh Harbour. A fuel pipeline is also proposed which will run from the power plant along Wilson City Road and terminate at Wilson City Dock. The dock will house pumping facilities to receive waterborne fuel shipments to service the plant.

Hours of operation are between 7:00 AM and 5:00 PM, 6 days per week. Personnel at the facility include a facility manager, a plant operator, an office administrator, and three operations and maintenance personnel.

The Site Plan and Facility Diagram included in Appendix A of this Plan show the location and layout of the facility. The Facility Diagram (Figure A-2) shows the location of oil containers, buildings, loading/unloading and transfer areas, and critical spill control structures.

The subject site is located on the eastern side of the island abutting Great Abaco Highway and the southeastern intersection of Wilson City Road, an unpaved road to Wilson City. The site is approximately seven (7) miles south of Marsh Harbour, the largest settlement on the island. Proximal and 2.4 miles north of the proposed project is Spring City. Between the site and Marsh Harbour is Marsh Harbour Airport. The subject site is located in a predominantly pine forest area of the island, with pine covered Crown Lands in cardinal locations of the site.

The site includes an office building, a maintenance shop, a tanker truck loading rack and unloading area, and product storage and handling areas. Petroleum products are stored within the bunded main bulk storage area, and inside the maintenance building.

2.1.1 OIL STORAGE

Oil storage at the facility consists of a bunded tank farm, which will include 2 x 1.0 million-gallon Heavy Fuel Oil (HFO) tanks, 250,000-gallon Automotive Diesel Oil (ADO) storage tank, 50,000-gallon HFO pre-centrifuge tank, a lube oil storage tank, and a sludge tank. In addition, the facility stores a varying stock of oil drums inside the maintenance building.

The capacities of oil containers present at the site are listed below and are also indicated on the facility diagram in Figure A-2. All containers with capacity of 55 gallons or more are included. The capacity of the oil/water separator is not included in the total storage capacity for the facility

since it is used to treat storm water and as a means of secondary containment for areas of the facility with potential for an oil discharge outside dikes or berms.

TABLE 2-1: OIL CONTAINERS

ID	Storage capacity	Content	Description
Fixed Storage			
1	1.0 mil gallons	HFO	Field-constructed Aboveground vertical tank
2	1.0 mil gallons	HFO	Field-constructed Aboveground vertical tank
3	250k gallons	ADO	Field-constructed Aboveground vertical tank
4	50k gallons	Precentrifuge HFO	Aboveground vertical tank
5	10,000 gallons	Lube Oil	Aboveground vertical tank
6	10,000 gallons	Sludge Tank	Aboveground vertical tank
Vehicles			
	2,000 gallons	Fuel oil	Delivery truck*

Note: Wilson City Station owns two delivery trucks. Both trucks are used in transportation-related activities outside the confines of the facility and generally return to the facility empty for parking overnight. One of the two delivery trucks is periodically parked while full. This truck is therefore counted in the storage capacity for this facility. The other truck is dedicated to scheduled deliveries and returns to the facility empty (except for minor residual). If the tanker truck returns to the facility with more than residual product, this product will be returned to inventory via the unloading station. If the facility decides to use this tanker for overnight storage, then this Plan must be modified to include the capacity of the truck and ensure compliance with other rule requirements, including secondary containment.

Total Oil Storage:	2,320,000 gallons

Other containers: (1) 1,500-gallon oil/water separator

Note: The oil/water separator is used treat facility drainage (i.e., wastewater) prior to discharge through the constructed disposal system under DEH wastewater discharge permits. Discharge from the facility includes stormwater collected from the paved areas outside the loading rack/unloading area containment berm and bulk storage containment dike. No external oil tanks

are associated with the oil/water separator. The capacity of the oil/water separator is not counted towards the facility total storage capacity.

2.2 EVALUATION OF DISCHARGE POTENTIAL

2.2.1 DISTANCE TO NAVIGABLE WATERS AND ADJOINING SHORELINES AND FLOW PATHS

The facility is located on relatively level terrain. Site drainage generally flows in the direction of to the onsite stormwater catch basins, which are directed to the discharge appurtenances. The Sea of Abaco is approximately 3.0 miles from the site. Spill trajectories are indicated on the facility diagram. Storm drains are located along across the property. They discharge to via an oil water separator. Approximately three-quarters of the facility's ground surface area are paved with asphalt. The remainder consists of compacted gravel, grass, and low-lying vegetation.

2.2.2 DISCHARGE HISTORY

TABLE 2-1 SUMMARIZES THE FACILITY'S DISCHARGE HISTORY.

Table 2-1: Oil Discharge History

Description of Discharge	Corrective Actions Taken	Plan for Preventing Recurrence
NA	NA	NA

3.0 DISCHARGE PREVENTION - GENERAL SPCC PROVISIONS

The following measures are implemented to prevent oil discharges during the handling, use, or transfer of oil products at the facility. Oil-handling employees have received training in the proper implementation of these measures.

3.1 COMPLIANCE WITH APPLICABLE REQUIREMENTS

This facility uses an oil/water separator as part of its drainage system to contain oil discharged in certain areas of the facility, as well as a bunded secondary containment area (i.e., overfills, and the loading/unloading area). The separator provides environmental protection to retain oil at the facility in the event of an uncontrolled discharge. As described in Section 3.5 of this Plan, the operational and emergency oil storage capacity of the oil/water separator is sufficient to handle the quantity of oil expected to be discharged in undiked areas from tank overfills or transfer operations.

The bulk storage tanks are inspected regularly and following a regular schedule in accordance with the API 650 tank inspection standard as described in this Plan. Any leakage from the primary container would be detected through monitoring of the interstitial space performed on a monthly basis. Any leakage from the secondary shell would be detected visually during scheduled visual inspections by facility personnel. Storage drums are elevated on spill pallets and have all sides visible, and any leak would be readily detected by facility personnel before they can cause a discharge to navigable waters or adjoining shorelines. Corrosion poses minimal risk of failure since drums are single-use and remain on site for a relatively short period of time (less than one year). The drum storage area is inspected monthly.

3.2 FACILITY LAYOUT DIAGRAM

Figure A-1 in Appendix A shows the general location of the facility on a Geological Survey topographic map. Figure A-2 in Appendix A presents a layout of the facility and the location of storage tanks and drums. The diagram also shows the location of storm water drain inlets and the direction of surface water runoff. The facility diagram indicates the location and content of ASTs and transfer stations and connecting piping.

3.3 SPILL REPORTING

The discharge notification form included in Appendix I will be completed upon immediate detection of a discharge and prior to reporting a spill to the proper notification contacts.

3.4 POTENTIAL DISCHARGE VOLUMES AND DIRECTION OF FLOW

Table 3-1 presents expected volume, discharge rate, general direction of flow in the event of equipment failure, and means of secondary containment for different parts of the facility where oil is stored, used, or handled.

Table 3-1: Potential Discharge Volumes and Direction of Flow

Potential Event	Maximum volume released (gallons)	Maximum discharge rate	Direction of Flow	Secondary Containment
Bulk Storage Area (Aboveground Storage Tanks)				
Failure of aboveground tank (collapse or puncture below product level)	20,000	Gradual to instantaneous	SW to Silver Creek	Concrete dike
Tank overfill	1 to 120	60 gal/min	SW to Silver Creek	Concrete dike
Pipe failure	20,000	240 gal/min	SW to Silver Creek	Concrete dike
Leaking pipe or valve packing	600	1 gal/min	SW to Silver Creek	Concrete dike
Leaking heating coil (Tank #7)	10,000	1 gal/min	SW to Silver Creek	Concrete dike
Loading Rack/Unloading Area				
Tank truck leak or failure inside the rollover berm	1 to 2,000	Gradual to instantaneous	SW to Silver Creek	Rollover berm, on to oil/water separator
Tank truck leak or failure outside the rollover berms	1 to 2,000	Gradual to instantaneous	SW to Silver Creek	Rollover berms, on to oil/water separator
Hose leak during truck loading	1 to 300	60 gal/min	SW to Silver Creek	Rollover berm
Fuel Dispensing Areas				
Tank #4 and diesel dispenser hose/ connections leak	1 to 150	30 gal/minute	SW to Silver Creek.	Land-based spill response capability (spill kit) and oil/water separator

Maintenance Building				
Leak or failure of drum	1 to 55	Gradual to instantaneous	SW to Silver Creek.	Spill pallets, oil/water separator
Other Areas				
Complete failure of portable tank (Tank #4)	500	Gradual to instantaneous	SW to Silver Creek.	Secondary shell, oil/water separator
Leaking portable tank or overfills (Tank #4)	1 to 100	3 gal/min	SW to Silver Creek.	Secondary shell, oil/water separator
Leak during transfer to heating fuel UST (Tank # 6)	1 to 120	60 gal/min	SW to Silver Creek.	Oil/water separator
Oil/water separator malfunction	1 to 300	1 gal/min	SW to Silver Creek.	

3.5 CONTAINMENT AND DIVERSIONARY STRUCTURES

Methods of secondary containment at this facility include a combination of structures (e.g., dike, berm, built-in secondary containment), drainage systems (e.g., oil/water separator), and land-based spill response (e.g., drain covers, sorbents) to prevent oil from reaching navigable waters and adjoining shorelines:

< For bulk storage containers (refer to Section 4.2.2 of this Plan):

Bund Area. A concrete dike enclosure is provided around fixed aboveground storage tanks, as described in Section 4.2.2 of this Plan.

Spill pallets. Each spill pallet has a capacity of 75 gallons, which can effectively contain the volume of any single 55-gallon drum. Drums are also stored inside the maintenance building and are not exposed to precipitation. The floor of the maintenance building and lower 24 inches of the outside walls are constructed of poured concrete that would restrict the flow of oil outside the building. The floor has two floor drains; the drain closest to the drum storage area is located 18 feet away. Floor drains flow into the oil/water separator, which is capable of containing any oil discharged from a 55-gallon drum.

At the loading rack and unloading area (refer to Section 3.10 of this Plan):

Rollover berm. The loading rack/unloading area is surrounded by a 4-inch rollover berm that provides sufficient containment for the largest compartment of the tank truck loading or unloading at the facility (2,000 gallons), and an additional 4 inches of freeboard for precipitation.

In transfer areas and other parts of the facility where a discharge could occur:

Drip pans. Fill ports for all ASTs are equipped with drip pans to contain small leaks from the piping/hose connections.

Sorbent material. Spill cleanup kits that include absorbent material, booms, and other portable barriers are located inside the maintenance building near the drummed oil storage area and in an outside shed located near the loading rack/unloading area, as shown on the Facility Diagram in Appendix A. The spill kits are located within close proximity of the oil product storage and handling areas for rapid deployment should a spill occur. Sorbent material, booms, and other portable barriers are stored in the shed next to the loading rack/unloading area to allow for quick deployment in the event of a discharge during loading/unloading activities or any other accidental discharge outside the dike or loading rack/unloading area, such as from tank vehicles entering/leaving the facility or spills associated with the fuel dispenser. The response equipment inventory for the facility is listed in Appendix J of this Plan. The inventory is checked monthly to ensure that used material is replenished.

Drainage system. The facility surface drainage is engineered to direct oil that may be discharged outside of engineered containment structures such as dikes or berms into the oil/water separator.

Oil/water separator. The oil/water separator is designed to separate and retain oil at the facility. The oil/water separator has a total capacity for oil/water mixture of 1,500 gallons and a design flow rate of 150 gallons per minute. The separator outlet valve can be closed in the event of a large discharge (greater than 300 gallons) to provide additional emergency containment of up to 1,200 gallons. The maximum amount of oil potentially discharged outside the diked or bermed areas is estimated at roughly 2,000 gallons (from the complete failure of an on-site tanker truck). A spill of this volume outside the diked or bermed areas will be primarily contained by deploying sorbent material and other portable spill barriers upon discovery of the spill, and additional oil containment capacity will be provided by the oil/water separator. The operating oil storage capacity is 300 gallons. Best Management Practices are used to minimize the amount of solids and oil that flow into the oil/water separator. Facility personnel are instructed to avoid and address small spills using sorbents to minimize runoff of oil into the oil/water separator. The oil/water separator is inspected monthly as part of the scheduled inspection to check the level of water within the separator and measure the depth of bottom sludges and floating oils. Floating oil is removed by a licensed waste collector when it reaches a thickness of 2 inches.

3.6 INSPECTIONS, TESTS, AND RECORDS

As required by the SPCC rule, Wilson City Station performs the inspections, tests, and evaluations listed in the following table. Table 3-2 summarizes the various types of inspections and tests performed at the facility. The inspections and tests are described later in this section, and in the respective sections that describe different parts of the facility (e.g., Section 4.2.6 for bulk storage containers).

Table 3-2: Inspection and Testing Program

Facility Component	Action	Frequency/Circumstances
Aboveground container	Test container integrity. Combine visual inspection with another testing technique (non-destructive shell testing). Inspect outside of container for signs of deterioration and discharges.	Following a regular schedule (monthly, annual, and during scheduled inspections) and whenever material repairs are made.
Container supports and foundation	Inspect container's supports and foundations.	Following a regular schedule (monthly, annual, and during scheduled inspections) and whenever material repairs are made.
Liquid level sensing devices (overfill)	Test for proper operation.	Monthly
Bund area	Inspect for signs of deterioration, discharges, or accumulation of oil inside diked areas.	Monthly
	Visually inspect content for presence of oil.	Prior to draining
Lowermost drain and all outlets of tank truck	Visually inspect.	Prior to filling and departure
Effluent treatment facilities	Detect possible system upsets that could cause a discharge.	Daily, monthly

Facility Component	Action	Frequency/Circumstances
All aboveground valves, piping, and appurtenances	Assess general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces.	Monthly
Buried metallic storage tank	Leak test.	Annually
Buried piping	Inspect for deterioration.	Whenever a section of buried line is exposed for any reason.
	Integrity and leak testing.	At the time of installation, modification, construction, relocation, or replacement.

3.7.1 DAILY INSPECTION

A Wilson City Station employee performs a complete walk-through of the facility each day. This daily visual inspection involves: (1) looking for tank/piping damage or leakage, stained or discolored soils, or excessive accumulation of water in diked and bermed areas; (2) observing the effluent from the oil/water separator; and (3) verifying that the dike drain valve is securely closed.

3.7.2 MONTHLY INSPECTION

The checklist provided in Appendix C is used for monthly inspections by Wilson City Station personnel. The monthly inspections cover the following key elements:

- Observing the exterior of aboveground storage tanks, pipes, and other equipment for signs of deterioration, leaks, corrosion, and thinning.
- Observing the exterior of portable containers for signs of deterioration or leaks.
- Observing tank foundations and supports for signs of instability or excessive settlement.
- Observing the tank fill and discharge pipes for signs of poor connection that could cause a discharge, and tank vent for obstructions and proper operation.
- Verifying the proper functioning of overfill prevention systems.
- Checking the inventory of discharge response equipment and restocking as needed.
- Observing the effluent and measuring the quantity of accumulated oil within the oil/water separator.

All problems regarding tanks, piping, containment, or response equipment must immediately be reported to the Facility Manager. Visible oil leaks from tank walls, piping, or other components must be repaired as soon as possible to prevent a larger spill or a discharge to navigable waters or adjoining shorelines. Pooled oil is removed immediately upon discovery.

Written monthly inspection records are signed by the Facility Manager and maintained with this SPCC Plan for a period of three years.

3.7.3 ANNUAL INSPECTION

Facility personnel perform a more thorough inspection of facility equipment on an annual basis. This annual inspection complements the monthly inspection described above and is performed in June of each year using the checklist provided in Appendix C of this Plan.

The annual inspection is preferably performed after a large storm event in order to verify the imperviousness and/or proper functioning of drainage control systems such as the dike, rollover berm, control valves, and the oil/water separator.

Written annual inspection records are signed by the Facility Manager and maintained with this SPCC Plan for a period of three years.

3.7.4 PERIODIC INTEGRITY TESTING

In addition to the above monthly and annual inspections by facility personnel, the bulk storage tanks are periodically evaluated by an outside certified tank inspector following the Steel Tank Institute (STI) Standard for the Inspection of Aboveground Storage Tanks.

3.8 PERSONNEL, TRAINING, AND DISCHARGE PREVENTION PROCEDURES

The Facility Manager is the facility designee and is responsible for oil discharge prevention, control, and response preparedness activities at this facility.

Wilson City Station management has instructed oil-handling facility personnel in the operation and maintenance of oil pollution prevention equipment, discharge procedure protocols, applicable pollution control laws, rules and regulations, general facility operations, and the content of this SPCC Plan. Any new facility personnel with oil-handling responsibilities are provided with this same training prior to being involved in any oil operation.

Annual discharge prevention briefings are held by the Facility Manager for all facility personnel involved in oil operations. The briefings are aimed at ensuring continued understanding and adherence to the discharge prevention procedures presented in the SPCC Plan. The briefings also highlight and describe known discharge events or failures, malfunctioning components, and

recently implemented precautionary measures and best practices. Facility operators and other personnel will have the opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

A simulation of an on-site vehicular discharge has been conducted, and future training exercises will be periodically held to prepare for possible discharge responses.

Records of the briefings and discharge prevention training are kept on the form shown in Appendix E and maintained with this SPCC Plan for a period of three years.

3.9 SECURITY

The facility is surrounded by 8-ft tall steel security fencing. The fence encircles the entire footprint of the facility. The single entrance gate is locked when the facility is unattended.

All drain valves for containment areas are locked in the closed position to prevent unauthorized opening. Water draw valves on the 20,000-gallon storage tanks are maintained in the closed position to prevent unauthorized opening via locks. Keys for all locked valves are kept in the front office.

Two area lights illuminate the loading/unloading and storage areas. Additional motion-activated lights are placed in other areas of the facility. The lights are placed to allow for the discovery of discharges and to deter acts of vandalism.

The electrical starter controls for the oil pumps, including the fuel dispenser, are located in a closet inside the maintenance shop. The closet is locked when the pumps are not in use. The maintenance shop is locked when the facility is unattended.

The facility securely caps or blank-flanges the loading/unloading connections of facility piping when not in service or when in standby service for an extended period of time, or when piping is emptied of liquid content either by draining or by inert gas pressure.

3.10 TANK TRUCK LOADING/UNLOADING RACK REQUIREMENTS

The potential for discharges during tank truck loading and unloading operations is of particular concern at this facility. Wilson City Station management is committed to ensuring the safe transfer of material to and from storage tanks. The following measures are implemented to prevent oil discharges during tank truck loading and unloading operations.

3.10.1 SECONDARY CONTAINMENT

The facility has both a loading rack (for loading moderate capacity oil delivery tanker trucks) and an unloading area (where product is unloaded from large capacity tanker truck to the facility bulk storage tanks).

The loading rack and unloading area are co-located and are used by outside suppliers making deliveries to the facility and to load Wilson City Station delivery trucks.

The tank truck loading rack/unloading area is surrounded with a 4-inch rollover asphalt berm that provides secondary containment in the event of a discharge during transfer operations. The secondary containment berm is designed to address the more stringent rack containment requirements of 40 CFR 112.7(h), which requires that the berm be sufficient to contain the capacity of the largest compartment, plus freeboard for precipitation. The curbed area provides a catchment capacity of 2,500 gallons, which is capable of containing the largest compartment of the petroleum suppliers truck making deliveries at this facility (maximum 2,000 gallons), and is also capable of containing the capacity of Wilson City Station's delivery trucks, which each have a total capacity of 2,000 gallons.

To minimize direct exposure to rain, and facilitate the cleanup of small spills that may occur during loading/unloading operations, the area is partially covered by a roof.

The area is graded to direct the flow of oil or water away from the vehicle, and the low point of the curbed area is fitted with a gate valve that is normally kept closed and locked. The key for that lock is kept in the main office. Wilson City personnel drain the berm after verifying that the retained water is free of oil. The accumulated water is released to the oil/water separator. The drain valve is closed and locked following drainage.

Although delivery trucks are usually empty while at the site for extended periods of time, Wilson City Station periodically parks one of its two delivery trucks while full overnight. If a delivery truck is parked overnight or for an extended period of time while it still contains fuel, it is parked inside the loading rack/unloading area containment berm. As discussed above, the berm provides sufficient containment capacity for the truck volume, plus sufficient freeboard for 4 inches of precipitation.

3.10.2 LOADING/UNLOADING PROCEDURES

All suppliers must meet the minimum requirements and regulations for tank truck loading/unloading established by the U.S. Department of Transportation. Wilson City Station ensures that the vendor understands the site layout, knows the protocol for entering the facility and unloading product, and has the necessary equipment to respond to a discharge from the vehicle or fuel delivery hose.

The Facility Manager or his/her designee supervises oil deliveries for all new suppliers, and periodically observes deliveries for existing, approved suppliers.

All loading and unloading of tank vehicles takes place only in the designated loading rack/unloading area.

Vehicle filling operations are performed by facility personnel trained in proper discharge prevention procedures. The truck driver or facility personnel remain with the vehicle at all times while fuel is being transferred. Transfer operations are performed according to the minimum procedures outlined in Table 3-3. This table is also posted next to the loading/unloading point.

Table 3-3: Fuel Transfer Procedures

Stage	Tasks
Prior to loading/ unloading	☐ Visually check all hoses for leaks and wet spots.
	☐ Verify that sufficient volume is available in the storage tank or truck.
	☐ Lock in the closed position all drainage valves of the secondary containment structure.
	☐ Secure the tank vehicle with wheel chocks and interlocks.
	☐ Ensure that the vehicle's parking brakes are set.
	☐ Verify proper alignment of valves and proper functioning of the pumping system.
	☐ If filling a tank truck, inspect the lowermost drain and all outlets.
	☐ Establish adequate bonding/grounding prior to connecting to the fuel transfer point.
	☐ Turn off cell phone.
During loading/ unloading	☐ Driver must stay with the vehicle at all times during loading/unloading activities.
	☐ Periodically inspect all systems, hoses and connections.
	☐ When loading, keep internal and external valves on the receiving tank open along with the pressure relief valves.
	☐ When making a connection, shut off the vehicle engine. When transferring Class 3 materials, shut off the vehicle engine unless it is used to operate a pump.
	☐ Maintain communication with the pumping and receiving stations.
	☐ Monitor the liquid level in the receiving tank to prevent overflow.
	☐ Monitor flow meters to determine rate of flow.
	☐ When topping off the tank, reduce flow rate to prevent overflow.
After loading/ unloading	☐ Make sure the transfer operation is completed.
	☐ Close all tank and loading valves before disconnecting.
	☐ Securely close all vehicle internal, external, and dome cover valves before disconnecting.
	☐ Secure all hatches.
	☐ Disconnect grounding/bonding wires.
	☐ Make sure the hoses are drained to remove the remaining oil before moving them away from the connection. Use a drip pan.
	☐ Cap the end of the hose and other connecting devices before moving them to prevent uncontrolled leakage.
	☐ Remove wheel chocks and interlocks.
	☐ Inspect the lowermost drain and all outlets on tank truck prior to departure. If necessary, tighten, adjust, or replace caps, valves, or other equipment to prevent oil leaking while in transit.

3.11 BRITTLE FRACTURE EVALUATION

The only field-constructed tanks at the facility are xx. All other tanks were shop-built.

As discussed in the American Petroleum Institute (API) Standard 653 Tank Inspection, Repair, Alteration, and Reconstruction (API-653), brittle fracture is not a concern for tanks that have a shell thickness of less than one-half inch. This is the extent of the brittle fracture evaluation for this tank.

Nonetheless, in the event that field erected tanks undergoes a repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure, the container will be evaluated for risk of discharge or failure, following API-653 or an equivalent approach, and corrective action will be taken as necessary.

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4.0: DISCHARGE PREVENTION

4.1 FACILITY DRAINAGE

Drainage from the concrete bund surrounding the tank farm tanks is restrained by a manually-operated gate valve to prevent a discharge from entering the facility drainage system. The gate valve is normally sealed closed, except when draining the secondary containment structure. The content of the secondary containment bund is inspected by facility personnel prior to draining to ensure that only oil-free water is allowed to enter the facility storm water drainage system. The bypass valve is opened and resealed under direct personnel supervision. Drainage events are recorded in the log included in Appendix D to this SPCC Plan.

Any potential discharge from ASTs will be restrained by secondary containment structures. Discharges occurring during loading/unloading operations will be restrained by the rollover berm. The facility includes a drainage system and an oil/water separator, which are used to as containment for spill sources outside the main berm areas (fuel dispensing and overfills). The facility is equipped with an oil/water separator engineered to retain oil at the facility. Discharges outside the containment areas, such as those occurring in the fuel dispensing area or while unloading a tanker, will flow by gravity into the drainage collection area and into the oil/water separator where oil will be retained until it can be pumped out.

4.2 BULK STORAGE CONTAINERS

Table 4-1 summarizes the construction, volume, and content of bulk storage containers at Wilson City Station facility.

Table 4-1: List of Oil Containers

Tank	Location	Type (Construction Standard)	Capacity (gallons)	Content	Discharge Prevention & Containment
#1	Bulk Storage Area	AST vertical (UL142)	20,000	Diesel	Concrete dike. Liquid level gauge.
#2	Bulk Storage Area	AST horizontal (UL142)	20,000	Premium unleaded gasoline	Concrete dike. Liquid level gauge.
#3	Bulk Storage Area	AST horizontal (UL142)	20,000	Regular unleaded gasoline	Concrete dike. Liquid level gauge.
#4	Varies	AST dual wall, portable tank (UL142)	500	Regular unleaded gasoline	Double-wall. Liquid level gauge and interstitial monitoring system.
#5	Fuel Dispensing Area	UST dual wall (STI P3)	5,000	Diesel	Double-wall. Liquid level gauge, overfill protection system, and interstitial monitoring.
#6	Outside Office Building	UST dual wall (STI P3)	1,000	No. 2 Fuel Oil	Double-wall. Liquid level gauge, overfill protection system, and interstitial monitoring.
#7	Bulk Storage Area	AST vertical (field-erected). Heated during winter months (internal coils)	10,000	No. 6 Fuel Oil	Concrete dike. Liquid level gauge.
	Inside Maintenance Building	Steel drums	55	Motor oil and used oil	Spill pallets with built-in containment capacity. Building also serves as containment since floor drains flow into oil/water separator

4.2.1 CONSTRUCTION

All oil tanks used at this facility are constructed of steel, in accordance with industry specifications as described above. The design and construction of all bulk storage containers are compatible with the characteristics of the oil product they contain, and with temperature and pressure conditions.

Piping between fixed aboveground bulk storage tanks is made of steel and placed aboveground on appropriate supports designed to minimize erosion and stress.

4.2.2 SECONDARY CONTAINMENT

A bund is provided around the tank farm and has a total containment capacity to allow sufficient volume for the largest tank and freeboard for precipitation. The freeboard is sufficient to contain a 10-inch rainfall corresponding to a 25-year, 24-hour storm event for this region, as documented in Appendix F of this Plan. The floor and walls of the containment dike are constructed of poured concrete reinforced with steel. The concrete dike was built under the supervision of a structural engineer and in conformance with his specifications to be impervious to oil for a period of 72 hours. The facility is attended for a maximum of 40 hours (Saturday evening through Monday morning) and therefore any spill into the bund area would be detected before it could escape the bund area. The surface of the concrete floor, the inside and outside of the walls, and the interface of the floor and walls, are visually inspected during the monthly facility inspection to detect any crack, signs of heaving or settlement, or other structural damage that could affect the ability of the dike to contain oil. Any damage is promptly corrected to prevent migration of oil into the ground, or out of the dike.

The 55-gallon drums are placed on spill pallets inside the maintenance shop. Each spill pallet provides 75 gallons of containment capacity, which is more than the required 55 gallons for any single drum since the drums are not exposed to precipitation. The floor of the maintenance shop is impervious and sloped to direct any discharge occurring in the building away from doorways and towards the drainage system that leads to the facility oil/water separator.

4.2.3 DRAINAGE OF BUND AREAS

The concrete bund areas are drained under direct supervision of facility personnel. The accumulated water is observed for signs of oil prior to draining. The gate valves are normally kept in a closed position and locked except when draining the bund area. Bund drainage events are recorded on the form included in Appendix D of this Plan; records are maintained at the facility for at least three years.

4.2.4 CORROSION PROTECTION

The piping between the dock and the facility, which are coated and cathodically protected to prevent corrosion and leakage into the ground. Pressure testing is performed on lines will be conducted every two years. The cathodic protection system is tested annually to verify its efficacy. Cathodic protection is provided all buried appurtenances to ensure the integrity of the system.

Records of pressure tests are kept for at least three years.

4.2.5 INSPECTIONS AND TESTS

Visual inspections of ASTs by facility personnel are performed according to the procedure described in this SPCC Plan. Leaks from tank seams, gaskets, rivets, and bolts are promptly corrected. Records of inspections and tests are signed by the inspector and kept at the facility for at least three years.

The scope and schedule of certified inspections and tests performed on the facility's ASTs are specified in STI Standard SP-001. The external inspection includes ultrasonic testing of the shell, as specified in the standard, or if recommended by the certified tank inspector to assess the integrity of the tank for continued oil storage.

Records of certified tank inspections are kept at the facility for at least three years. Shell test comparison records are retained for the life of the tanks.

Table 4-2 summarizes inspections and tests performed on bulk storage containers ("EE" indicates that an environmentally equivalent measure is implemented in place of the inspection/test, as discussed in Section 3.1 of this Plan).

Table 4-2: Scope and Frequency of Bulk Storage Containers Inspections and Tests

	Tank ID							
Inspection/Test	#1	#2	#3	#4	#5	#6	#7	Drums
Visual inspection by facility personnel (as per checklist of Appendix C)	M A	M A	M A	M A			M A	M A
External inspection by certified inspector (as per STI Standard SP-001)	20 yr	20 yr	10 yr	EE			10 yr	EE
Internal inspection by certified inspector (as per STI Standard SP-001)	†	†	20 yr*	EE			20 yr*	EE
Tank tightness test meeting requirements of 40 CFR 280					2 yr	2 yr		

Legend: M: Monthly
A: Annual
EE: Inspection not required given use of environmentally equivalent measure (refer to Section 3.1 of this Plan).
* Or earlier, as recommended by the certified inspector based on findings from an external inspection.
† Internal inspection may be recommended by the certified inspector based on findings from the external inspection.

The frequency above is based on implementation of a scheduled inspection/testing program. To initiate the program, ASTs will be inspected by the following dates:

< All Tanks: external inspection to be performed by December 31, 2008

4.2.7 HEATING COILS

Exhaust lines from internal heating coils drain to the oil/water separator. The exhaust lines are monitored for signs of leakage as part of the monthly inspection of the facility.

4.2.8 OVERFILL PREVENTION SYSTEMS

All tanks are equipped with a direct-reading level gauge. Additionally, all fixed ASTs are equipped with high level alarms set at 90 percent of the rated capacity. General secondary containment is provided in the event of overfills, as described in this Plan. Storage drums are not refilled, and therefore overfill prevention systems do not apply. Facility personnel are present throughout the filling operations to monitor the product level in the tanks.

4.2.9 EFFLUENT TREATMENT FACILITIES

The facility's storm water effluent discharged into the facilities drainage structures is observed and records maintained according to the frequency required by DEH permit #0000 (at least once per month) to detect possible upsets in the oil/water separator that could lead to a discharge.

4.2.10 VISIBLE DISCHARGES

Visible discharges from any container or appurtenance – including seams, gaskets, piping, pumps, valves, rivets, and bolts – are quickly corrected upon discovery.

Oil is promptly removed from the bund area and disposed of according to the waste disposal method described in Part 5 of this Plan.

4.3 TRANSFER OPERATIONS, PUMPING, AND IN-PLANT PROCESSES

Transfer operations at this facility include:

- The transfer of oil from the underground fuel oil storage tank to the furnace located in the basement of the office building. The oil is pumped from the oil storage tank by means of buried steel fuel lines and a suction pump system.
- The filling of facility delivery trucks using the gasoline dispenser.
- The transfer of oil into or from tanker trucks at the loading rack/unloading area.

All buried piping at this facility is cathodically protected against corrosion and is provided with a protective wrapping and coating. When a section of buried line is exposed, it is carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action must be taken as deemed appropriate considering the magnitude of the damage. Additionally, Wilson City Station conducts integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement. Records of all tests are kept at the facility for at least three years.

Lines that are not in service or are on standby for an extended period of time are capped or blank-flanged and marked as to their origin. All pipe supports are designed to minimize abrasion and corrosion and to allow for expansion and contraction. Pipe supports are visually inspected during the monthly inspection of the facility.

All aboveground piping and valves are examined monthly to assess their condition. Inspection includes aboveground valves, piping, appurtenances, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. Observations are noted on the monthly inspection checklist provided in this Plan.

Warning signs are posted at appropriate locations throughout the facility to prevent vehicles from damaging aboveground piping and appurtenances. Most of the aboveground piping is located within areas that are not accessible to vehicular traffic (e.g., inside diked area). Brightly painted bollards are placed where needed to prevent vehicular collisions with equipment.

5.0: DISCHARGE RESPONSE

This section describes the response and cleanup procedures in the event of an oil discharge. The uncontrolled discharge of oil to groundwater, surface water, or soil is prohibited by state and possibly federal laws. Immediate action must be taken to control, contain, and recover discharged product.

In general, the following steps are taken:

- Eliminate potential spark sources;
- If possible and safe to do so, identify and shut down source of the discharge to stop the flow;
- Contain the discharge with sorbents, berms, fences, trenches, sandbags, or other material;
- Contact the Facility Manager or his/her alternate;
- Contact regulatory authorities and the response organization; and
- Collect and dispose of recovered products according to regulation.

For the purpose of establishing appropriate response procedures, this SPCC Plan classifies discharges as either "minor" or "major," depending on the volume and characteristics of the material released.

A list of Emergency Contacts is provided in Appendix H. The list is also posted at prominent locations throughout the facility. A list of discharge response material kept at the facility is included in Appendix J.

5.1 RESPONSE TO A MINOR DISCHARGE

A "minor" discharge is defined as one that poses no significant harm (or threat) to human health and safety or to the environment. Minor discharges are generally those where:

- The quantity of product discharged is small (e.g., may involve less than 10 gallons of oil);
- Discharged material is easily stopped and controlled at the time of the discharge;
- Discharge is localized near the source;
- Discharged material is not likely to reach water;
- There is little risk to human health or safety; and
- There is little risk of fire or explosion.

Minor discharges can usually be cleaned up by Wilson City Station personnel. The following guidelines apply:

- Immediately notify the Facility Manager.
- Under the direction of the Facility Manager, contain the discharge with discharge response materials and equipment. Place discharge debris in properly labeled waste containers.
- The Facility Manager will complete the discharge notification form (Appendix I) and attach a copy to this SPCC Plan.
- If the discharge involves more than 10 gallons of oil, the Facility Manager will call the Environmental safety and health department

5.2 RESPONSE TO A MAJOR DISCHARGE

A "major" discharge is defined as one that cannot be safely controlled or cleaned up by facility personnel, such as when:

- The discharge is large enough to spread beyond the immediate discharge area;
- The discharged material enters water;
- The discharge requires special equipment or training to clean up;
- The discharged material poses a hazard to human health or safety; or
- There is a danger of fire or explosion.

In the event of a major discharge, the following guidelines apply:

- All workers must immediately evacuate the discharge site via the designated exit routes and move to the designated staging areas at a safe distance from the discharge. Exit routes are included on the facility diagram and posted in the maintenance building, in the office building, and on the outside wall of the outside shed that contains the spill response equipment.
- If the Facility Manager is not present at the facility, the senior on-site person notifies the Facility Manager of the discharge and has authority to initiate notification and response. Certain notifications are dependent on the circumstances and type of discharge. A discharge that threatens Marsh Harbour-Lake City Aquifer may require immediate notification to downstream users such as the town drinking water plant, which has an intake located in the aquifer.
- The Facility Manager (or senior on-site person) must call for medical assistance if workers are injured.
- The Facility Manager (or senior on-site person) must notify the Fire Department or Police Department.
- The Facility Manager (or senior on-site person) must call the spill response and cleanup contractors listed in the Emergency Contacts list in Appendix H.
- The Facility Manager (or senior on-site person) must immediately contact the and the Environmental Manager

- < The Facility Manager (or senior on-site person) must record the call on the Discharge Notification form in Appendix I and attach a copy to this SPCC Plan.
- < The Facility Manager (or senior on-site person) coordinates cleanup and obtains assistance from a cleanup contractor or other response organization as necessary.

If the Facility Manager is not available at the time of the discharge, then the next highest person in seniority assumes responsibility for coordinating response activities.

5.3 WASTE DISPOSAL

Wastes resulting from a minor discharge response will be containerized in impervious bags, drums, or buckets. The facility manager will characterize the waste for proper disposal and ensure that it is removed from the facility by a licensed waste hauler within two weeks.

Wastes resulting from a major discharge response will be removed and disposed of by a cleanup contractor.

5.4 DISCHARGE NOTIFICATION

Any size discharge (i.e., one that creates a sheen, emulsion, or sludge) that affects or threatens to affect navigable waters or adjoining shorelines must be reported immediately to the facility manger and the Environmental Safety & Health Department

A summary sheet is included in Appendix I to facilitate reporting. The person reporting the discharge must provide the following information:

- Name, location, organization, and telephone number
- Name and address of the party responsible for the incident
- Date and time of the incident
- Location of the incident
- Source and cause of the release or discharge
- Types of material(s) released or discharged
- Quantity of materials released or discharged
- Danger or threat posed by the release or discharge
- Number and types of injuries (if any)
- Media affected or threatened by the discharge (i.e., water, land, air)
- Weather conditions at the incident location
- Any other information that may help emergency personnel respond to the incident

Contact information for reporting a discharge to the appropriate authorities is listed in Appendix H and is also posted in prominent locations throughout the facility (e.g., in the office building, in the maintenance building, and at the loading rack/unloading area).

5.5 CLEANUP CONTRACTORS AND EQUIPMENT SUPPLIERS

Contact information for specialized spill response and cleanup contractors are provided in Appendix H. These contractors have the necessary equipment to respond to a discharge of oil that affects Silver Creek or adjoining shorelines, including floating booms and oil skimmers.

Spill kits are located at the loading rack/unloading area and inside the maintenance building. The inventory of response supplies and equipment is provided in Appendix J of this Plan. The inventory is verified on a monthly basis. Additional supplies and equipment may be ordered from the following sources:

AA Equipment Co.	(800) 555-5556
Eastern Sorbent	(800) 555-5557

APPENDIX A

Figures: Site Plan and Facility Diagram

Figure A-1: Site Plan.

Figure A-2: Facility Diagram.