SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN

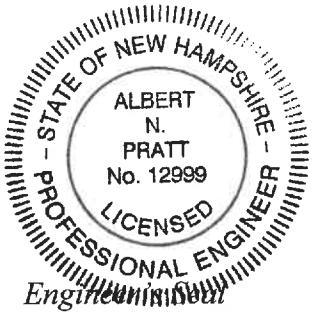
CITY OF PORTSMOUTH, NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS
680 Peverly Hill Road
Portsmouth, NH 03801

FACILITY OWNER/OPERATOR
CITY OF PORTSMOUTH
1 Junkins Avenue
Portsmouth, NH 03801

Revised: March 2016

Professional Engineer Certification (40 CFR 112.7)

I, Albert Pratt, a Registered Professional Engineer in the State of New Hampshire, certify that I have examined the facility described in this Spill Prevention Control & Countermeasure (SPCC) Plan for the City of Portsmouth Department of Public Works Facility at 680 Peverly Hill Road, Portsmouth, and being familiar with the provisions of Title 40 Code of Federal Regulations (CFR), Section 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards. I further attest that procedures for required inspections and testing have been established, and that this Plan is adequate for the facility.



Engineer (Name) Albert N. Pratt, PE

Signature: _____

Registration Number 12999

State Registered: New Hampshire Date 3/22/16

Management Commitment (40 CFR 112.7)

This SPCC Plan was prepared pursuant to the requirements of Title 40 CFR 112. Its intent is to provide a clear, well-conceived, and effective plan to prevent releases from containers storing oil on the property from impacting the navigable waters of the United States or its adjoining shorelines. I understand that by implementing this plan that I have the authority and willingness to commit the resources necessary to carry out the processes and procedures described in this plan as expediently as possible. I realize this plan must be reviewed 5 (five) years from this date and whenever oil storage and transfer facilities or operations are altered, to ensure this plan accurately reflects the spill prevention and response capability depicted herein.

Signature _____ Date 3/22/16

Peter H. Rice
Department of Public Works Director

SPCC Plan Review (40 CFR 112.7)

This plan is to be reviewed by a designated representative of the Portsmouth Department of Public Works at least once every 5 (five) years (40 CFR 112.5(b)). If necessary, the SPCC plan shall be amended for the facility when there is a change in facility design, construction, operation or maintenance that materially affects the potential to discharge oil (40 CFR 112.5(a)); and/or more effective technology if such technology will significantly reduce the likelihood of a spill event from the facility (40 CFR 112.5(b)).

I have completed review and evaluation of this SPCC for DPW on _____, *and will / will not amend the plan as a result.*

(circle one)

Print and Sign _____

*** Similar review statements may be noted as appropriate on following pages.***

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APPENDICES

1 Facility Owner/Operator

Facility Name: City of Portsmouth, NH
Department of Public Works

Facility Address: 680 Peverly Hill Road
Portsmouth, NH 03801

Telephone: (603) 427-1530

Latitude/Longitude: 43° 2' 48.0" N / 70° 46' 34.6" W

Owner / Operator: City of Portsmouth
1 Junkins Avenue
Contact: Al Pratt, Water Resource Manager
Phone#: (603) 520.0622

Facility Type: Public Works Garage, Storage and Maintenance Facility & Recycling Center

2 SPCC Plan Description (40 CFR 112.7(a)(1))

The purpose of this Spill Prevention, Control, and Countermeasure (SPCC) Plan is to employ provisions and establish procedures for the prevention and control of fuel or other petroleum product and establish protocols to be followed in the event of a petroleum release, fire, and/or explosion to soil or water as required by:

40 CFR 110, Discharge of Oil
40 CFR 112, Oil Pollution Prevention

This SPCC Plan includes provisions for controls, containment and diversionary structures, monitoring equipment, personnel training programs, inspection and record keeping, security, and spill cleanup procedures.

This SPCC Plan has been prepared in accordance with 40 CFR 112; in accordance with good engineering practices; has the full approval of management to commit the resources necessary to implement the Plan; was designed in general accordance with applicable industry standards; and details those engineering design and operational procedures and practices in place at each petroleum storage location to prevent and/or contain a potential spill.

This document provides a ready reference for operating personnel on the provisions for discharge prevention and control at each site. It will also be used as an information resource when regulatory agency personnel visit the site for inspection purposes

The provisions of this plan apply to all employees of the Department of Public Works (DPW) that are responsible for handling fuel or petroleum products. This plan provides protocols for the expeditious control and removal of any harmful quantities of oil/petroleum product discharged into the water, onto the shorelines, and/or onto the ground surface in the vicinity of the DPW

facility. This facility is not required to prepare and submit a Facility Response Plan, as contained in 40 CFR 112.20. A signed certification form is provided in **Appendix A** of this plan.

2.1 SPCC Rule

Section 311 of the Federal Water Pollution Control Act/Clean Water Act established the authority upon which the Environmental Protection Agency (EPA) issued regulations entitled Oil Pollution Prevention (40 CFR 112).

The regulations presented in 40 Code of Federal Regulations (CFR Part 112, dated July 17, 2002 and last amended in 2009) require that non-transportation related onshore and offshore facilities that could reasonably be expected to discharge oil into navigable waters of the United States or adjoining shorelines prepare and implement an SPCC Plan designed to prevent the aforementioned discharge of oil in such quantities that may be harmful (as defined in 40 CFR 110.3), into navigable waters of the United States or adjoining shorelines as defined in 40 CFR 112 (d).

40 CFR 112.2 defines oil to include "...oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origins; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse or oil mixed with wastes other than dredged spoil."

In implementing this SPCC Plan, it is important to understand the following terms:

"Discharge" includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping of oil." [112.2(4)]

"Harmful discharges of oil into navigable waters of the United States" as defined in 40 CFR 110.3, includes discharges of oil that:

(a) Violate applicable water quality standards, or

(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

"Navigable Waters", as defined 40 CFR 112.2, means "navigable waters" as defined in section 502(7) of the FWPCA, and includes:

- All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92–500), and tributaries of such waters;
- Interstate waters;
- Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and
- Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

2.2 SPCC Rule Applicability - 40 CFR 112.1(b); 40 CFR 112.3(a)

Facilities subject to 40 CFR 112 include those which either:

- Have an aboveground storage capacity in excess of 1,320 gallons (counting containers with a capacity of 55 U.S. gallons or greater); and
- Can reasonably expect a discharge to reach navigable waters of the United States; or
- Have an underground storage capacity in excess of 42,000 gallons of oil and are not subject to all the technical requirements of 40 CFR Part 280 or approved State program.

The City of Portsmouth DPW Facility has above-ground bulk storage tanks with a total maximum capacity of 2,110 gallons. This volume represents an aboveground oil storage capacity in excess of the thresholds listed above that under certain conditions has the potential to spill into navigable waters of the United States, and is therefore subject to 40 CFR Part 112.

2.3 Regulatory Sections Not Applicable to this Facility

- 40 CFR 112.7(e)(4) – Tank Car Loading/Unloading
- 40 CFR 112.7(e)(5) - Oil Production Facilities (onshore)
- 40 CFR 112.7(e)(6) - Oil Drilling and Workover (onshore)
- 40 CFR 112.7(e)(7) - Oil Drilling Production or Workover (offshore)
- 40 CFR 112.7(h) – Tank Truck Loading/Unloading Rack
- 40 CFR 112.7(i) – Brittle Fracture Evaluations
- 40 CFR 112.7(k) – Qualified Oil-filled Operational Equipment
- 40 CFR 112.8(b) – Facility Drainage of Containment
- 40 CFR 112.8(c)(3) – Diked Area Drainage
- 40 CFR 112.8((c)(4) – Buried Tanks
- 40 CFR 112.8(c)(5) – Partially Buried Tanks
- 40 CFR 112.8(c)(7) – Internal Heating Coils
- 40 CFR 112.8(c)(9) – Effluent Treatment Facilities
- 40 CFR 112.8(d) – Facility Transfer Operations, Pumping And Facility Process
- 40 CFR 112.7.20 - Facility Response Plans

2.4 Location and Status of SPCC Plan (40 CFR 112.3(e))

Owners and operators shall maintain a complete copy of the SPCC plan at the facility if the facility is normally attended at least 4 hours per day, or at the nearest field office if the facility is not so attended, and shall make such plan available to the Regional Administrator for on-site review during normal working hours.

Complete copies of this SPCC Plan are maintained at the Portsmouth DPW facility with the General Foreman-Highway/Facilities and Water Resource Manager and is available to the US EPA Regional Representative and NH Department of Environmental Services for on-site review during normal business hours.

The original SPCC plan for this facility was developed January 2002. Subsequent revisions were made in 2007 and 2016.

3 SPCC Plan Review and Amendment

3.1 Amendment of SPCC Plan by Regional Administrator (40 CFR 112.4)

The EPA may require the facility to amend the plan if it finds that the plan does not meet the requirements of 40 CFR Part 112 or if amendment is necessary to prevent and to contain discharges of oil from the facility. A spill event to navigable waters may subject the facility to additional reporting requirements of 40 CFR 112.4 and EPA review.

If EPA determines that the facility does not meet the requirements of 40 CFR Part 112 or that an amendment to this Plan is necessary, the facility will promptly make and implement the necessary changes in order to be in compliance.

3.2 Amendment of Plan by Owner (40 CFR 112.5(a))

Facility personnel shall amend the SPCC Plan whenever there is a change in the facility design, construction, operation, or maintenance which materially affects the facility's potential for discharge. Such amendments shall be prepared within six months, and implemented as soon as possible, but not later than six months following preparation of the amendment.

The DPW Water Resource Manager or City Engineer will review the SPCC Plan periodically to determine whether changes have occurred that may require an update to the SPCC Plan. Updates are recorded in the Review and Amendment Log table in **Appendix B**. If required plan amendments involve changes in the amount of oil at the facility, risks of potential oil releases, secondary containment, operation, maintenance or other changes that materially affect the potential for a discharge from the facility, the plan will be technically amended and certified by a Professional Engineer in accordance with 40 CFR 112.3(d).

3.3 Five Year Plan Review (40 CFR 112.5(b))

Facility personnel shall also complete a review and evaluation of the SPCC Plan at least once every five years. Facility personnel shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if such technology has been field-proven at the time of review and will significantly reduce the likelihood of discharge from the facility. Amendments must be implemented as soon as possible, but not later than six months from preparation of the amendment.

Completion of the five year review will be noted with an entry in the SPCC Plan Review and Amendment Log (**Appendix B**). If, as a result of this review, it is determined that this SPCC Plan accurately reflects the current facility operations, spill potential and spill response and prevention measures (as of the time of the review), then the entry made in the SPCC Plan Review and Amendment Log shall indicate that no changes were made. This entry will include the signature of the SPCC Plan reviewer.

Minor administrative changes, such as name changes of personnel or general facility information do not require certification of the SPCC Plan by a Professional Engineer. However, these must be noted in the Review and Amendment Log.

Significant changes to the facility design, construction, operation, or maintenance that materially affects its potential for a discharge as described in 40 CFR 112.1(b) will be reflected as technical amendments to this SPCC Plan in accordance with 40 CFR 112.5. These SPCC Plan amendments will be prepared as soon as possible, but no later than six months from the facility modification. The SPCC Plan Review and Amendment Log (**Appendix B**) shall be updated to document the amendment.

The US EPA Regional Administrator shall be provided a copy of this facility's SPCC plan if any of the following occurs:

- The facility discharges more than 1,000 gallons of oil into or upon navigable waters of the United States or adjoining shorelines in a single event.
- The facility discharges more than 42 gallons of oil in each of two discharges within any 12-month period.
- The US EPA Regional Administrator requests a copy of the plan.

In the case of a discharge, the following additional information shall be submitted to US EPA Regional Administrator within 60 days the incident (40 CFR 112.4).

4 General Requirements and Plan Conformance

4.1 Plan Conformance (40 CFR 112.7(a)(1))

This Spill Prevention, Control and Countermeasure (SPCC) Plan has been prepared in accordance with the provisions of 40 CFR 112, specifically for the Portsmouth Department of Public Works facility and is based upon on-site inspection, the review of pertinent documents, and available information.

The purpose of this plan is to describe the oil-containing equipment and bulk storage tanks in place at the facility and the procedures that are employed by the DPW to prevent oil discharges from entering waters of Massachusetts. Implementation of this plan will ensure the proper management for oil use, storage, handling and disposal to: (1) prevent spills or discharge of oil into navigable waters; (2) control and contain spills if they do occur in order to prevent or to minimize the quantity of spilled material entering waters of New Hampshire; and, (3) coordinate clean-up activities. It is also the purpose of this plan to outline the reporting requirements for spills and accidental discharges of oil that must be reported to federal and state agencies having regulatory responsibility for such spills and/or discharges.
This plan and all supporting data and notes (collectively referred to hereinafter as "information") were gathered and/or prepared in accordance with generally accepted engineering and scientific practices in effect at the time of the site assessment. The information described herein is derived from oral information provided by DPW representatives, and physical observations.

4.2 Compliance with Applicable Parts (40 CFR 112.7(a)(2))

The plan must conform to all applicable requirements listed in 40 CFR 112. If the plan does not conform to the applicable requirements you must state the reasons for non conformance. If the Plan calls for additional facilities or procedures, methods, or equipment not yet fully

operational, discuss these items in separate paragraphs and explain separately the details of installation and operational startup.

In accordance with 40 CFR 112.5, no corrective actions were identified at the time of the certification of this plan.

5 Facility Description (40 CFR 112.7(a)(3))

The Portsmouth DPW facility is located on the south side of Peverly Hill Road and approximately 1,000 feet west of Lafayette Road (Route 1) in an industrial and general business section of Portsmouth, New Hampshire (**Figure 1, Appendix C**). The easterly flowing Sagamore Creek is located approximately 900 feet north of the site.

The site is abutted to the east by Peverly Hill Road with commercial property beyond; to the south by commercial property; to the west by a gravel pit and rock quarry; and to the north by Pike Industries, a gravel and concrete processing facility. The site is *not* within a wellhead protection area and is served by the Portsmouth municipal water supply.

The Portsmouth DPW facility is comprised of one building with three sections – office space, storage space and a multi-bay garage. There is also a salt shed and a Recycling Center at the site. The Facility Diagrams in **Appendix D** identify the locations of all oil storage tanks and site drainage information.

In the garage that is used for vehicle maintenance there are three above-ground storage tanks and two designated drum storage areas. Two of the above ground storage tanks, Tank #2 and Tank #3 contain new motor oil and hydraulic oil, respectively, for vehicle maintenance. These tanks are 400 gallon, double-walled steel tanks. The third tank is used for temporary storage of used motor-oil from vehicles serviced. This 275-gallon single-walled tank is situated within a concrete-walled secondary containment structure that is designed to contain approximately 640 gallons. The concrete block wall is coated with an impervious urethane sealant.

Above-ground storage tank, Tank #1, is located at the Recycling Center. It is a 265-gallon double-walled, steel tank. Portsmouth residents are allowed to dispose of used motor oil at this facility. Portsmouth DPW employees are responsible for handling and emptying the used oil from resident containers into this storage tank. The oil level in the tank is monitored visually at the inlet port. The oil is hauled off-site and disposed of by a contractor. There is also a used cooking oil tank that is not owned or operated by Portsmouth DPW, thus it is not included in this plan.

There are two designated drum storage areas in the Maintenance Garage. One area near Tank #2 and Tank #3 (#6 Drum Storage Area) contains up to ten (10) 55-gallon drums of new specialty motor oils, anti-freeze and/or diesel additives. The other area (#7 Drum Storage Area) is located near the used oil tank, Tank #4. This area contains up to four (4) 55-gallon drums of waste oil, new oil, and/or mixed waste materials. All of the drums in these areas are situated on spill containment pallets.

5.1 Oil Storage Capacity (40 CFR 112.7(a)(3)(i))

The maximum oil storage capacities for containers of 55 gallons or greater are described in this section, including a discussion of secondary containment and/or diversionary structures or equipment to prevent spilled oil from reaching navigable waters. The total amount of oil at this facility that is stored in above-ground containers is 2,110 gallons.

Table 5-1 Oil-Filled Storage Tanks

TANK ID	LOCATION	CAPACITY (GALLONS)	TYPE OF OIL
Tank #1	Outside, at Recycling Center	265	Used motor oil
Tank #2	Inside in oil storage room	400	New motor oil
Tank #3	Inside in oil storage room	400	New hydraulic fluid
Tank #4	Inside Maintenance Garage, used oil storage tank	275	Used motor oil
Tank #6	Inside Maintenance Garage, drum storage area near oil storage room	550 (Up to ten 55-gallon drums)	New motor oils
Tank #7	Inside Maintenance Garage, drum storage area near waste oil tank and drain pan	220 (Up to four 55-gallon drums)	New and used oils
UST #1 (SPCC Exempt)	Underground Storage Tank, Outside, under fueling pad	5,000	Gasoline
UST #2 (SPCC Exempt)	Underground Storage Tank, Outside, under fueling pad	12,000	Diesel fuel

5.2 Loading & Unloading Transfer Procedures (40 CFR(a)(3)(ii))

Address discharge prevention measures including procedures for routine handling of petroleum products.

Fuel and bulk oil loading and unloading operations are carried out at the locations shown on the attached Facility Diagram (**Appendix D**). Tank truck unloading procedures for gasoline and diesel shall meet the minimum requirements and regulations established by the Department of Transportation (40 CFR 112.7(e)(4)(i)).

The vendor supplying the bulk oil or fuel is responsible for all transfer activities. Portsmouth DPW personnel must be available, on-site during all transfer operations. The delivery vendor

must employ practices for preventing transfer spills or accidental discharges, and must verify that sufficient capacity is available in the receiving tank prior to filling.

The nearest catch basin to the unloading/loading site is identified on the Facility Diagrams (**Appendix D**). If a spill occurred, this is the most vulnerable location and would need to be plugged. The delivery vendor shall be in attendance during all filling operations, monitoring all aspects of the delivery. Fuel delivery vendor shall not fill tanks to greater than 90 percent capacity in the UST's, and ¾ full in the AST's to reduce the potential for a tank overfill. The spill prevention response and emergency procedure specified in the SPCC plan must be adhered to for all unloading/loading operations.

In the event of a spill during filling, the direction of flow is shown on the attached site plan (**Appendix D**). Sorbent materials shall be applied by the fuel delivery vendor immediately to prevent product from reaching streets, catch basins, drainage structures or other potential routes of migration to navigable waters. Following initial containment efforts, the fuel delivery vendor shall follow the spill/discharge response and reporting procedure identified in **Section 6** and **Appendix E** and **Appendix F** of this plan. This procedure will be communicated to all truck loading/unloading operators delivering or removing petroleum products to/from the DPW facility.

5.3 Facility Drainage (40 CFR 112.7(a)(3)(iii))

Address discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge.

All of the areas at this facility where a release of oil could potentially occur are paved with asphalt. Stormwater flows over the paved areas via sheet flow to a network of catch basins. The southeastern portion of the facility drains to a catch-basin that conveys stormwater through a 12-inch pipe to the storm drain along Peverly Hill Road. This stormdrain discharges to a low-lying area that drains via an 18-inch concrete storm drain north to Sagamore Creek.

The southern and southwestern portions of the facility drains through 15-inch PVC drain pipes to a Vortechnics grit and oil skimmer treatment unit. This unit discharges to an outlet in the southern corner of the site into a low-lying area that was once a quarry. The wetland in this low-lying area drains northwest to Elwyn Brook, which flows northeast to Sagamore Creek.

The western portion of the site, including the Recycling Center drains through a series of catch-basins and drain pipes toward the south through the same Vortechnics treatment unit that receives stormwater from the majority of the site, and ultimately drains to Elwyn Brook.

Secondary containment structures for all above-ground containers at this facility are not exposed to stormwater. Procedures to protect storm drains during transfer activities are managed by active containment practices as described in **Section 5.2**.

6 Spill Response and Reporting

6.1 Countermeasures (40 CFR 112.7(a)(3)(iv))

Address countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor).

Facility personnel are capable of containing and cleaning up small spills, 15 gallons and less, using the inventory of spill response and containment equipment located on-site. The facility also has fire extinguishers available for use in the event of a fire.

The safety of employees, the public, and the environment will have the highest priority in all actions taken in response to a spill. No countermeasure activities will be undertaken until conditions are safe for workers. The primary emphasis of this SPCC Plan is on prevention; however, should a spill occur that impacts navigable waters or adjacent shorelines, the following sections present countermeasures to contain, clean up, and mitigate the effects of the spill. Such countermeasures will be implemented consistent with local, state, and federal regulations.

This plan will be amended, as necessary, after a reportable spill event. **Appendix G** contains a spill report form, which shall be used to collect the pertinent information.

In the event of an oil spill, the General Foreman – Highway/Facilities, Director of Public Works, or Deputy Director of Public Works has the responsibilities of the Facility Response Coordinator and is in charge of the cleanup operations and the management of the procedures outlined in the following sections.

6.2 Response Contact Information (40 CFR 112.7(a)(3)(vi))

Provide contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and local agencies who must be contacted in case of a discharge.

See **Appendix E** for a comprehensive list of emergency response contact information.

6.3 Spill Discovery

A major oil release during loading/unloading activities will be noticed immediately by the transfer attendants. Smaller leaks will be detected by site personnel during regularly scheduled inspections. In the event of a leak of if a spill is detected, DPW personnel will notify the Director or Deputy Director of Public Works immediately and take all appropriate measures to safely stop and contain the spill.

6.4 Spill Response and Cleanup

To prevent spilled oil from reaching navigable waters, spill response procedures will be conducted immediately to contain spilled product. If spills occur beyond secondary containment structures, such as during product transfer operations, sorbent materials shall be applied to prevent oil from reaching drains, soil or waterways. The Portsmouth DPW Management has determined that the use of containment and diversionary structures, sorbent materials and/or readily available contracted personnel and equipment to prevent discharged oil from reaching

navigable waters is practical and effective at this facility for potential releases during transfer activities. (40 CFR 112.7(d))

The following spill response clean-up contractors have been approved and are available on a 24-hour basis and willing to assist DPW with its spill response needs:

United Industrial Services... 203-238-6745

Clean Harbors 603-224-6626

Enpro Services Inc. 800-966-1102

The following emergency procedures shall be used in the event of a petroleum release.

6.4.1 Spill Response Procedures (40 CFR 112.7(a)(4)&(5))

Spills of ½ gallon or less typically travel 18" or less from the point of impact and are of relatively minor consequence. In general, remedial clean up with appropriate absorbent material is appropriate. Spill response kits shall be located at the scene of all transfer operations.

Spills of ½ gallon to 5 gallons generally travel 10 feet from the point of impact and are not anticipated to cover more than 50 square feet. Spills over 5 gallons cover more than 50 square feet. In both these incidents, the first person(s) on-scene of an oil spill shall:

Survey the Scene: See if there are any imminent risks of fire/explosion or other hazards, and evacuate if present.

Stop the Spill: Contain spill if possible with available absorbent materials.

Warn Others in Vicinity: Warn others in the surrounding area that there is a spill and to stand clear of the area.

Isolate the Area: Isolate the spill area to prevent personnel or vehicles from inadvertently entering the area. Establish fire/explosion prevention measures in the vicinity of the spill.

Notify Personnel: Notify Public Works Director and/or Public Works Deputy Director. See **Appendix F** for contact information. Report the following information:

Name and telephone number of person reporting,

Time and type of incident (spill, release, fire),

Type and quantity of material involved, and

Cause of the spill (if known).

The General Foreman-Highway/Facilities, Public Works Director, or Deputy Public Works Director will take charge of all spill response activities as "Facility Response Coordinator" (FRC) upon arrival at the spill site. He/She has the authority to commit resources to direct spill

cleanup activities. The following and the checklist in **Appendix E** are a guide for spill response activities.

Contain the spill, keep it from spreading. This shall include, but is not limited to the following actions. Shut off the fuel dispensing pump; shut off a supply pipe valve; turn a drum where a hole would be on top; plug a hole in a tank by inserting a plug; magnetic patch; or other appropriate object to stop the leaking. Create a berm using earth; sand; spill absorbent material; kitty litter; asphalt; or other appropriate material to stop or slow the flow of oil or divert the flow of oil from entering any storm drains. The FRC shall use the pre-staged spill kit to control and clean up the spill or contain it until additional help arrives. He/She will determine if more help is needed.

In the event of a fire, explosion or imminent threat that could threaten human health, or the environment, the FRC, and as deemed necessary, in consultation with the Fire Department, shall consider and implement, as appropriate, an evacuation of the surrounding area.

6.4.2 Disposal (40 CFR 112.7(a)(3)(v))

Address methods of disposal of recovered materials in accordance with applicable legal requirements.

Disposal of recovered materials (absorbents, rags, oil/water mixtures, contaminated soil and gravel, etc.) will be conducted in accordance with all appropriate and applicable federal, state, and local regulations and as directed by the SPCC Plan Coordinator. Oily solid and liquid wastes shall be containerized separately and profiled. DPW personnel will ensure that the materials and construction of tanks used for the storage of wastes are compatible with the materials stored and conditions of storage such as pressure and temperature.

A licensed contractor will be contacted to transport and dispose of the wastes in accordance with established procedures and regulations associated with waste transport, manifesting, and disposal. Appropriate documentation will also be maintained. In no event should spill areas be hosed down and washed into the stormdrain system.

6.5 Reporting Information (40 CFR 112.7(a)(4))

According to the Federal Water Pollution Control Act, a spill event is defined as a discharge of oil, which includes any spilling, leaking, pumping, pouring, emitting, emptying, or dumping, that enters the waters of U.S. or the adjoining shorelines in harmful quantities. For the purposes of this Plan, a discharge event occurs if oil leaves the DPW property boundary, discharges into a catch basin, or enters surface water or adjoining shorelines. A harmful quantity of oil is a discharge that is in violation of applicable water quality standards, causes a film or sheen upon the water or adjoining shorelines, discolors the water or adjoining shorelines, or causes an emulsion or sludge to be deposited beneath the surface of the water or upon adjoining shorelines.

Immediately following any spill event, the Facility Response Coordinator will complete a Spill Report Form, included in **Appendix G**. The National Response Center will be notified within 2 hours of an oil discharge to a navigable waterway.

Any responsible party or other person having knowledge of a discharge of oil shall report such discharge to the NH DES *immediately (within 1 hour), unless all of the following are met:*

1. **The discharge is less than 25 gallons**
2. **The discharge is immediately contained**
3. **The discharge and/or containment is completely removed within 24 hours; and**
4. **There is no impact or partial impact to ground water or surface water.**

See **Appendix H** for information regarding spill notification to the NHDES.

For records and reporting purposes, spill events can be classified in the following two ways: reportable and non-reportable under the SPCC Rule. These definition pertain to the EPA reporting requirements; see above for NHDES reporting requirements.

Reportable Spill Event: According to the U.S. EPA requirements, any facility that spills more than 1,000 gallons of oil into navigable water or onto adjoining shorelines in a single incident or have two reportable oil discharges of more than 42 gallons within any 12 month period, must complete a Spill Report and submit it to the EPA Regional Administrator within sixty (60) days from the time the spill occurs. This Incident Report must contain specific information, which is provided in the Spill Report Form provided in **Appendix G**.

Non-Reportable Spill Event: For non-reportable spill events, the Spill Report provided in **Appendix G** will also be completed. These reports are for internal records but should be kept on file in case external reporting becomes necessary due to potential future spill events. Remember, a spill event is reportable if it is the second occurrence of a 42 gallon spill, or greater, within a twelve-month period.

When notifying an agency of a reportable spill event, document and report the following information:

- Name of contact person;
- Facility address;
- Facility phone number;
- Date and time of discharge;
- Type of material discharged;
- Estimates of the quantity discharged;
- Source of the discharge;
- Description of all affected media (land, water, etc.);
- Cause of the discharge;
- Damages or injuries caused by the discharge;

- Action being taken to stop, remove, and mitigate the effects of the discharge;
- Whether an evacuation may be needed; and,
- Name of individuals and/or organizations that have also been contacted.

6.6 Written Spill Reporting Requirements – EPA

If the facility discharges oil into navigable waters of the United States or adjoining shorelines in excess of 1,000 gallons in a single event (per 40 CFR Part 112), or two spill events of 42 gallons or more within any 12-month period, the SPCC Coordinator shall submit, within 60 days, a written report to the EPA Regional Administrator as required by 40 CFR Part 112.4(a). This report must contain the following information:

- Name of the facility;
- Your name;
- Maximum storage or handling capacity of the facility and normal daily throughput;
- Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- The cause of such discharge as described in Part 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;
- Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
- Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

The report shall be sent to:

Regional Administrator
US EPA Region I
5 Post Office Square, Suite 100
Boston, MA 02109-3912

6.7 Spill History (40 CFR 112.7(a))

On October 25, 2014 there was a spill at this site of approximately 55 gallons of mixed flammable liquids. This occurred during a City Hazardous Waste Collection Day and the company contracted to manage the collection activities (MXI Maumee Express, Inc.) was responsible for the spill and cleanup. This spill did not result in an oil discharge as defined in Part 112.2.

There have been no oil discharges at this facility in the past year.

7 Spill Prediction and Containment (40 CFR 112.7(b))

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

Storm water drains from the paved areas at the facility into catch basins which discharge to outfalls described in **Section 5.3**.

Potential failures that could result in a discharge of oil from the facility include:

- Tank rupture or leakage;
- Piping failure or leakage;
- Valve leakage; or
- Overfills and spills during transfer operations.

The following spill scenarios are considered typical and they identify discharge flow directions if no secondary containment or diversionary structures exist, or if spill response actions are not deployed. The estimated rates in gallons per minute (gpm) are assumed based upon the typical release scenario.

Table 7-1 - Potential Spill Directions, Volumes and Rates

SOURCE	MAJOR TYPE OF FAILURE	ESTIMATED RATE (GPM)	EST. TOTAL QUANTITY (GAL)	DIRECTION OF FLOW*	SECONDARY CONTAINMENT
Tank #1	Seam failure; rupture	50	265	Contained in tank; nearest stormdrain is ~100'SW of tank	Double-walled steel tank
Tank #2	Seam failure; rupture	50	400	Contained in tank; nearest stormdrain is ~100 feet N of tank	Double-walled steel tank
Tank #3	Seam failure; rupture	50	400	Contained in tank; nearest stormdrain is ~100 feet N of tank	Double-walled steel tank
Tank #4	Seam failure; rupture	50	275	Contained in concrete vault; nearest stormdrain is 250 feet SE of tank	Single-walled steel tank in concrete vault (capacity ~640 gallons)
Tank #6	Seam failure; rupture; spill	Instantaneous	55	Contained in spill pallet; active containment within garage.	Spill pallets (>61 gallons); active containment

SOURCE	MAJOR TYPE OF FAILURE	ESTIMATED RATE (GPM)	EST. TOTAL QUANTITY (GAL)	DIRECTION OF FLOW*	SECONDARY CONTAINMENT
Tank #7	Seam failure; rupture; spill	Instantaneous	55	Contained in spill pallet; active containment within garage.	Spill pallets (>61 gallons); active containment
Oil loading/ unloading areas	Hose rupture; connection release; overfill	60	30	Over pavement away from building; toward storm drains as noted on Facility Diagram	Temporary containment measures; active containment w/ berms, pads and sorbent material

*Refer to Figure 3, Facility Diagram, Appendix D.

8 Secondary Containment and Diversionary Structures (40 CFR 112.7(c))

Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge.

8.1 Practicability of Containment (40 CFR 112.7(d))

If the installation of structures or equipment to prevent a discharge of oil is not practicable, explain in the Plan why such measures are not practicable; for bulk storage containers, conduct periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a Facility Response Plan under 40 CFR 112.20, provide a contingency plan and a written commitment of manpower, equipment, and materials required to expeditiously control and remove discharged oil.

General Controls

Appropriate containment measures, as described in **Section 7**, are in-place to prevent oil released from the above-ground storage tanks at this facility. Double-walled steel tanks provide sufficient containment, and active measures are adequate for small spills that could potentially occur associated with the drums and routine oil handling.

Loading/Unloading Operations

Secondary containment associated with loading/unloading operations is discussed in **Section 5.2**.

9 Inspections and Records (40 CFR 112.7(e))

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

The above-ground storage tanks are inspected monthly for signs of corrosion, leaks, damage, and the security of the tanks verified. **Appendix I** provides an inspection checklist, and additional inspection requirements are described in **Section 13.2.3**. Inspections are performed by DPW personnel that are knowledgeable of SPCC regulations and are qualified to assess tank conditions. A record of inspections is maintained on the site. All records are kept for a minimum of three years.

If compromised oil storage tanks, pipes ,or equipment are discovered, the Director or Deputy Director of Public Works will be notified immediately and corrective actions will be implemented as soon as possible and appropriate given the conditions identified.

The Public Works Department will make a commitment of manpower, equipment, and resources to expeditiously control and remove any harmful quantity of oil discharged from the piping and/or tanks.

10 Personnel Training and Discharge Prevention Procedures

10.1 Personnel Training (40 CFR 112.7(f)(1))

At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.
Once a year, at minimum, training will be conducted for personnel handling oil or petroleum equipment. The topics typically covered during the annual training are listed in **Section 10.3** below. Attendance at training sessions will be recorded on the Training Log in **Appendix J.**

10.2 Reporting Responsibilities (40 CFR 112.7(f)(2))

Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.

The Facility Engineer is designated as the person responsible for ensuring that spill prevention, control and response measures detailed in this SPCC Plan are implemented, that adequate training is provided, that any necessary improvements are made, and that this Plan is maintained and kept current. The Facility Engineer is also responsible for keeping track of any significant changes made in the facility design, construction, operation, or maintenance, which materially affect the potential discharge of oil at the facility.

In the event of a discharge of oil, the Facility Engineer/Facility Response Coordinator is responsible for coordinating response actions; coordinating all containment, control and response activities; internal emergency notifications as detailed in this Plan; and serving as the primary

on-site contact for local emergency response contractors or agencies. The Facility Response Coordinator is identified in **Section 6**.

10.3 Discharge Prevention Briefings (40 CFR 112.7(f)(3))

Schedule and conduct discharge prevention briefings for oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for the facility. Such briefings must highlight and describe known discharges or failures, malfunctioning components, and any recently developed precautionary measures.

Discharge prevention briefings are conducted at least once per year. The General Foreman – Highway/Facilities or designated staff is responsible for conducting the annual briefings. The annual briefings are typically conducted as part of the annual training. The briefings provide a review of the SPCC Plan to ensure proper understanding of procedures and requirements. In addition, the briefings will include discussions of known discharges or failures, malfunctioning components of the oil storage and handling systems, and precautionary measures developed as a result.

The training shall include the operation and maintenance of equipment to prevent the discharge of oil, applicable pollution control laws, rules, and regulations, a discussion of known spill events or failures, malfunctioning components, and recently developed precautionary measures, if such events occur.

Portsmouth DPW may incorporate the following topics in conducting their spill prevention briefings and employee training sessions:

- Laws and regulations;
- Spill Prevention, Control and Countermeasures Plan;
- Historical release events, failures or malfunctioning components (i.e., lessons learned);
- Equipment maintenance schedule;
- Equipment inspection and testing requirements;
- Reporting requirements;
- Records keeping requirements;
- Proper material handling to prevent pollution;
- Spill response procedures; and
- Best Management Practices (BMPs) for preventing pollution, including:
    - Visual inspections;
    - Good housekeeping; and
    - Preventative maintenance.

Training documents and employee verification of training is maintained in the Facilities office

11 Security (40 CFR 112.7(g))

Secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges.

Lighting is sufficient in all locations to enable visual checks for leakage.

Tank #1 is situated within the Recycling Center, by a fence which is locked when the facility is closed/unmanned. All other ASTs are surrounded by walled structures or are located inside a building. The front entrance of the building is monitored by a receptionist and visitors must log in and be accompanied by a DPW employee.

12 Compliance with State and Other Requirements (40 CFR 112.7(j))

Include a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.

The following regulations are applicable to the Portsmouth DPW facility and are addressed by the inspection and reporting procedures documented in this SPCC Plan.

12.1 Federal

The Federal Water Pollution Control Act, as amended, prohibits the discharge of harmful quantities of oil into the waters of the United States. Harmful quantity has been defined as any amount of oil on the water, which causes a sheen, or discoloration on the surface of the water. A violation of this law is punishable by a civil penalty. Also, under law, is the provision that whenever oil is discharged into U.S. waters, the United States has the authority to remove or arrange for the removal of oil. The owner of the vessel, or facility, from which the discharge occurred, may remove the oil spilled. If he does not, the government will do so at the owner's expense.

12.2 State

Petroleum AST's are regulated in New Hampshire by both the Department of Environmental Services (DES) and the New Hampshire Fire Marshal's Office. The DES has established rules under the Administrative Rules, Part Env-Or 300 for petroleum AST's in April 1997.

The DES rule specifies State requirements for all aspects of design, installation, monitoring, testing, and oil handling and spill response measures associated with above-ground storage of petroleum products. All AST's greater than 660 gallons must be registered with the DES.

13 SPCC Requirements for On-Shore Facilities

13.1 Facility Drainage (40 CFR 112.8(b))

There are no secondary containment structures at this facility that are exposed to precipitation, and the storm drainage system at this facility is not designed for or needed for use as secondary containment. There are no oil/water separators at this facility.

See **Section 5.3** for a description of drainage features at this facility.

13.2 Bulk Storage Containers

13.2.1 Materials and Construction (40 CFR 112.8(c)(1))

You must not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

The materials and construction of tanks used for the storage of oil are compatible with the materials stored and conditions of storage such as pressure and temperature.

13.2.2 Secondary Containment (40 CFR 112.8(c)(2))

You must construct all bulk storage container installations (except mobile refuelers and other nontransportation related trucks) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternate system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

Section 7 includes a description of secondary containment all above-ground bulk petroleum storage tanks. There are no secondary containment structures at this facility that are exposed to precipitation.

13.2.3 Tank Testing and Inspections (40 CFR 112.8(c)(6))

You must test each aboveground container on a regular schedule, and whenever you make material repairs. You must determine, in accordance with industry standards, the appropriate qualifications for personnel performing tests and inspections, the frequency and type of testing and inspections, which take into account container size, configuration, and design (such as containers that are: shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Examples of these integrity tests include, but are not limited to: visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice.

Based on the capacity and secondary containment capabilities for the AST onsite, the Steel Tank Institute (STI) SP-0001 standard procedure recommends periodic inspections.

The storage tanks at this facility are visually inspected monthly for signs of corrosion, leaks, and damage; and the security of the tank will be verified. Monthly visual inspections of the oil storage tanks will be documented using the inspection form in **Appendix I**. Monthly inspections include checking the interstitial space in double-walled tanks to check for oil content. Inspections will be conducted by DPW personnel that are knowledgeable of storage facility operations; the type of AST and its associated components; characteristics of the liquid stored; and SPCC regulations.

Inspections include the examination of external conditions of the tanks and containers and their containment structure, plus associated piping, valves, pumps, electrical equipment, content level monitors and gauges, and overfill prevention instrumentation.

Trained facility personnel and SPCC team members will perform the tank inspections, which typically include a review of the following components for storage tanks and containers:

- Primary tank or containers for deterioration (e.g., rust, peeling paint, corrosion, cracks)
- Interstitial space for tank contents
- Tank gauges and alarms
- Tank appurtenances
- Normal vents
- Drip marks or stains
- Discoloration of tank
- Puddles containing spilled or leaked contents

The inspections typically include a review of the following components for foundation equipment:

- Tank supports
- Tank anchors
- Tank foundation (cracks, discoloration, puddles of contents, settling, gaps)
- Release prevention barriers (cracks, gaps)
- Spill control systems

Copies of storage tank inspection records will be maintained in the Facilities office. Records of the inspections, signed by the appropriate supervisor or inspector, will be maintained for a period of at least three years.

13.2.4 Good Engineering Practice (40 CFR 112.8(c)(8))

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

1. High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station.

2. High liquid level pump cutoff devices set to stop flow at a predetermined container content level.

3. Direct audible or code signal communication between the container gauge and the pumping station.

4. A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.

5. You must regularly test liquid level sensing devices to ensure proper operation.

The ASTs at this facility are equipped with visual level gauges and loading procedures require personnel to monitor the level gauge during filling to avoid overfill. Also, maximum allowable fill height is ¾ of the total tank volume as indicated on the tank.

13.2.5 Visible Oil Leaks (40 CFR 112.8(c)(10))

Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. Promptly remove any accumulations of oil in diked areas.

If leaks or signs of leaks are observed, the General Foreman – Highway/Facilities is notified immediately. The General Foreman – Highway/Facilities is responsible for removing and properly disposing of leaked oil and eliminating the cause of the leak. See **Section 6.4**.

13.2.6 Mobile or Portable Tanks – 40 CFR 112.8(c)(11)

Position or locate mobile or portable oil storage containers to prevent a discharge of oil to navigable waters. Except for mobile refuelers and other non-transportation-related tank trucks, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

The only portable tanks at this facility are 55-gallon drums. These drums are stored on spill containment pallets with capacities of at least 61 gallons each (110% of the 55-gallon drum capacity). When drums are moved, they are completely closed with bungs securely tightened.

14 Facility Response Plan

14.1 Certification of Substantial Harm Determination

Pursuant to the Oil Prevention Act of 1990 (OPA 90), facilities which store oil and/or petroleum products in bulk quantities (greater than 1,000,000 gallons), or which transfer oil and/or petroleum products over water, and which pose the potential for substantial harm to the environment as a result of a worst case discharge of these materials during storage or transfer, are required to prepare a Facility Response Plan which is consistent with 40 CFR 112.20.

Facilities not meeting these criteria must complete a Certification of Substantial Harm Determination form and maintain this form as part of the facility's SPCC Plan. This Certification of Substantial Harm Determination form must be reviewed every five years and updated.

This DPW facility does not meet the criteria specified in the Certification of Substantial Harm Determination. A complete Certification of Substantial Harm Determination Form is located in **Appendix A**.

APPENDICIES

Appendix A - Certification of Substantial Harm Determination
Appendix B - SPCC Plan Review and Amendment Log
Appendix C - Site Location Map
Appendix D - Facility Diagrams (fuel storage, direction of flow, site drainage plan)
Appendix E - Checklist – Spill Response Procedure
Appendix F - Emergency Contact Numbers
Appendix G - NH DES Spill Report Form
Appendix H - NH DES Oil Spill Reporting Fact Sheet
Appendix I - Aboveground Storage Tank Inspection Checklist
Appendix J - Training Certification Form
Appendix K - Spill Response Equipment
Appendix L - SPCC Notices

APPENDIX A

CERTIFICATION OF SUBSTANTIAL HARM DETERMINATION

This facility is not required to prepare and submit a Facility Response Plan per 40 CFR 112.20

Facility Name: Department of Public Works
Facility address: 680 Peverly Hill Road, Portsmouth, New Hampshire 03801

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

Yes _____ No X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons?

Yes _____ No X

Certification:

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

Signature

Water resource Manager
Title

ALBERT PRATT
Name (print)

3/22/16
Date

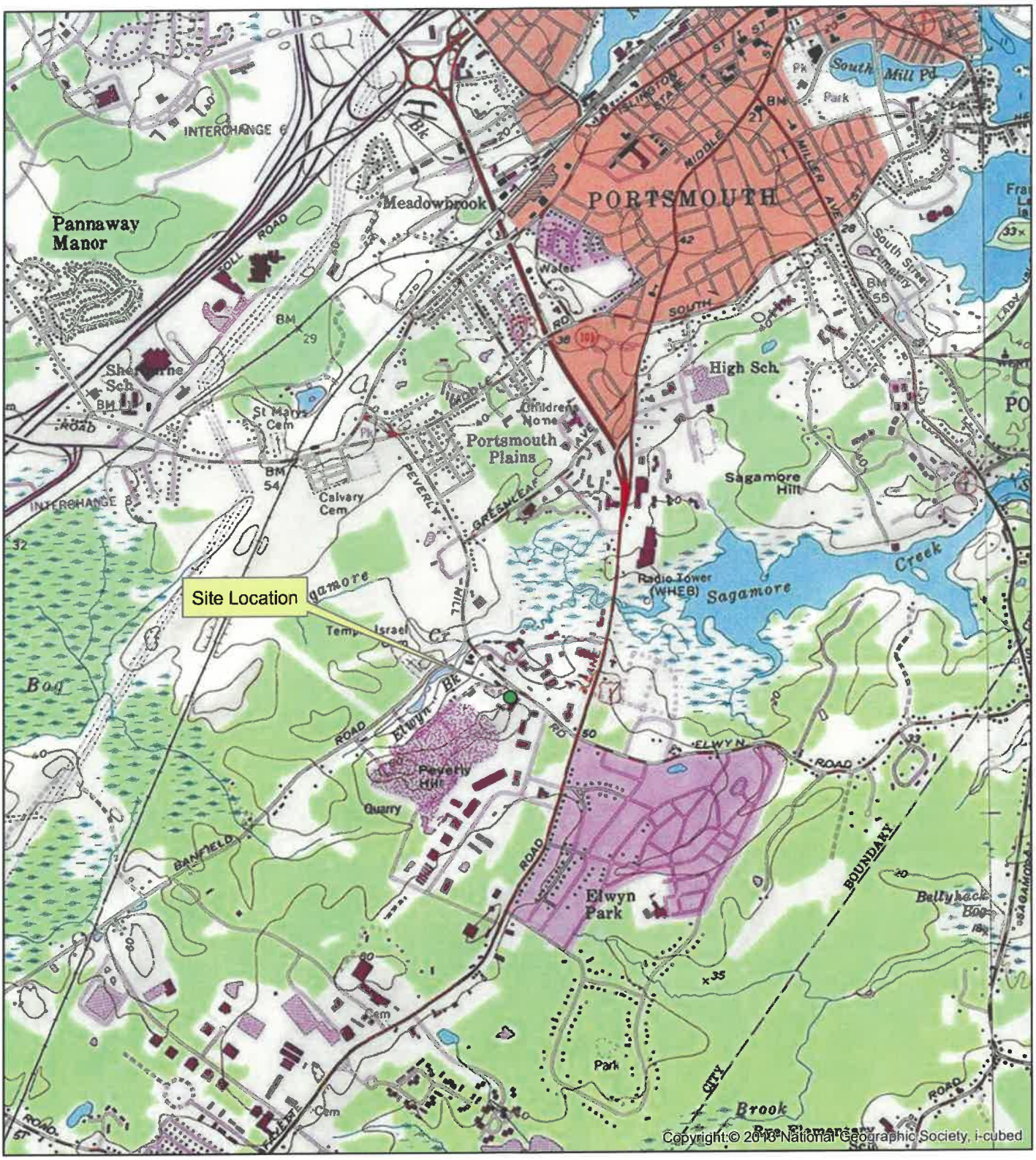
APPENDIX B

SPCC PLAN REVIEW AND AMENDMENT LOG

Date	Revision#	Amendment Description
March 2016	2	Modified text to comply with changes in rule Part 112; removed references to the Biodiesel AST (removed); updated tank information; added additional descriptions of facility, inspections, history and response procedures. Complete review and re-certification of Plan.

APPENDIX C

SITE LOCATION MAP



N

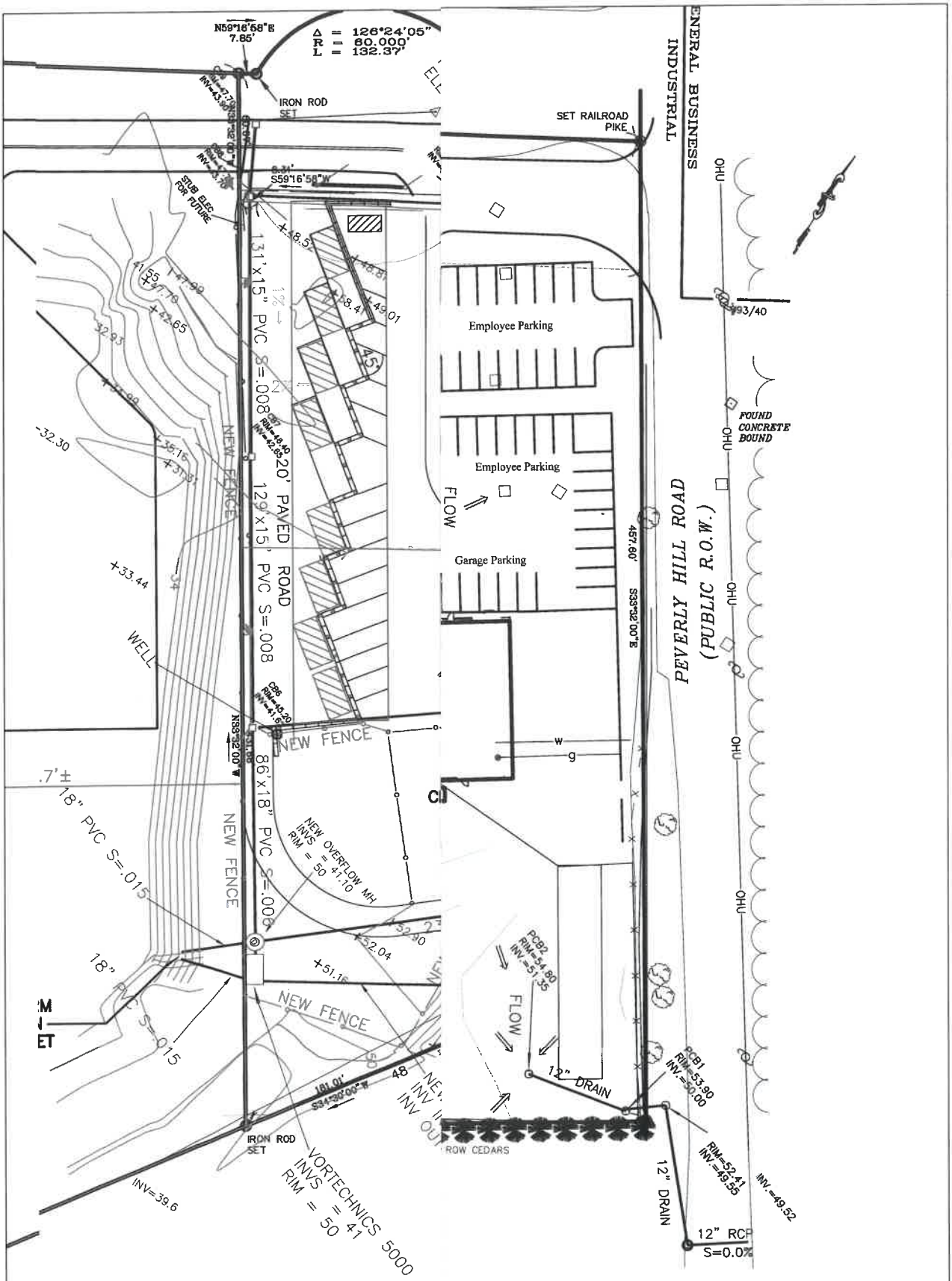
0 2,000 4,000 Feet

Figure 1
Locus
SPCC Plan

Portsmouth DPW
680 Peverly Hill Road
Portsmouth, NH 03801

APPENDIX D

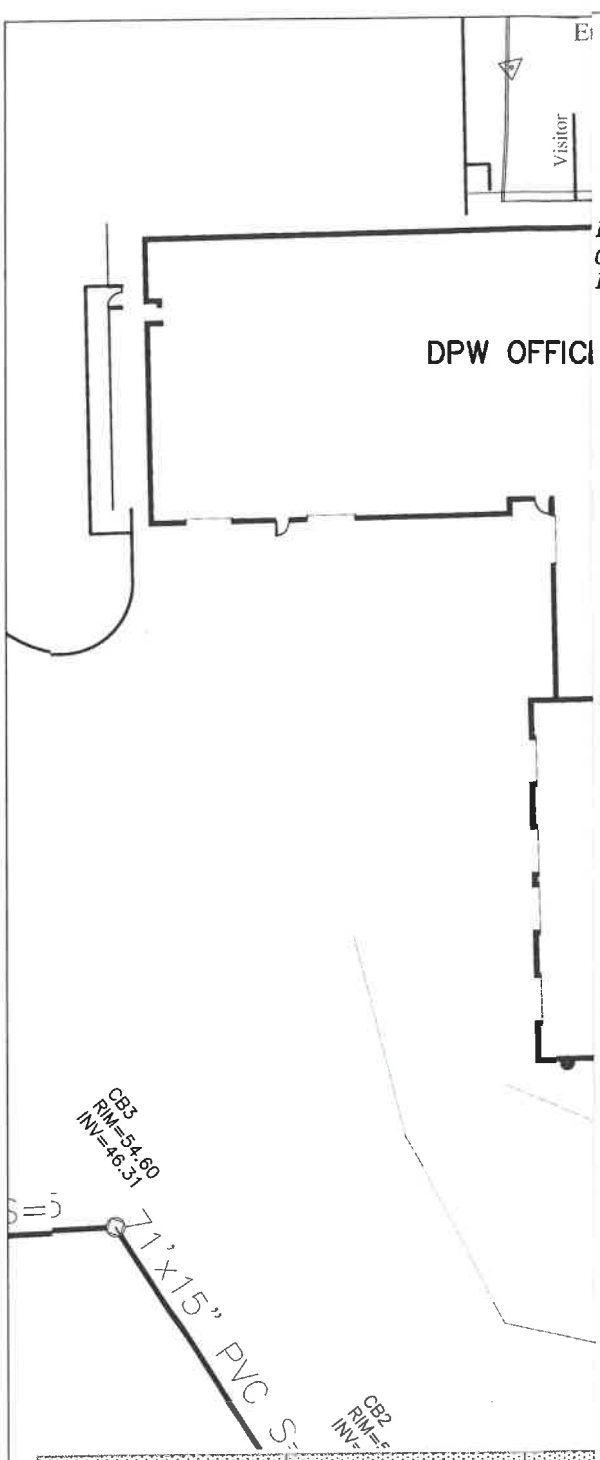
FACILITY DIAGRAMS



TANK ID	TYPE OF OIL	CAPACITY (GALLONS)
Tank #1	Used motor oil	265

FIGURE 2
FACILITY DIAGRAM
SPCC PLAN
CITY OF PORTSMOUTH
DEPARTMENT OF PUBLIC WORKS

SCALE 1"=100'



TANK ID	TYPE OF OIL	CAI (GA
Tank #2	New motor oil	
Tank #3	New hydraulic fluid	
Tank #4	Used motor oil	
Tank #6 (rum Storage Area)	New motor oils	
Tank #7 (rum Storage Area)	New and used oil	
UST #1 (SPCC Exempt)	Gasoline	41 .55
UST #2 (SPCC Exempt)	Diesel fuel	1

INV.=

FIGURE 3
FACILITY DIADRAM GARAGE
SPCC PLAN
CITY OF PORTSMOUTH
DEPARTMENT OF PUBLIC WORKS
SCALE 1"=60'

APPENDIX E

CHECKLIST - SPILL RESPONSE PROCEDURE

Use the minimum amount of resources and materials necessary to do a complete cleanup operation, in order to minimize potential waste material generated. The following checklist items should be considered depending on the incident.

a. Minor Spill (0.5-10 gallons)	**YES**	**N/A**
(i) Ensure source of spill is secured.		
(ii) Notify the Emergency Coordinator, Site Manager or his/her alternate via intercom		
(iii) Contain spill with absorbent materials from emergency spill kit.		
(iv) Secure area to traffic and unnecessary access, smoking lamp out. Establish fire/explosion prevention measure in the vicinity of the spill.		
(iv) Ensure personnel have proper Personal Protective Equipment		
(v) Report surface water spill to NH DES and the National Spill Response Center		
(vi) Ground surface spill, collect contaminated soil in bags or drums as quickly as possible to prevent the spill from reaching the storm drains. Dispose of waste/spill clean-up material.		
(vii) Coordinate Cleanup efforts.		

b. Spills (greater than 10 gallons)	**YES**	**N/A**
(i) Ensure source of spill is secured.		
(ii) Contain spill with absorbent materials from emergency spill kit.		
(iii) Notify the Facility Response Coordinator, Site Manager or his/her alternate		
(iv) Secure area to traffic and unnecessary access, smoking lamp out, Establish fire/explosion prevention measure in the vicinity of the spill. First responder notify fire department		
(v) Ensure personnel have proper Personal Protective Equipment		
(vi) Report spill to NH DES and the National Spill Response Center		
(vii) Ground surface spill, collect contaminated soil in bags or drums as quickly as possible to prevent the spill from reaching the storm drains and surface waters. Dispose of hazardous waste/spill clean-up material using permitted hazardous waste transporter.		
(viii) Deploy clean up equipment (e.g. sanders, loader, etc.) as needed.		
(ix) Coordinate Cleanup efforts. Coordinate final cleanup with New Hampshire DES		

APPENDIX F

EMERGENCY CONTACT NUMBERS

Designated Facility Response Coordinator for Public Works:

Primary Contact:

Peter Rice,
Department of Public Works Director

(W) (603) 766-1416
(C) (603) 498-6101

Alternate Contacts:

Brian Goetz
Department of Public Works Deputy Director
(W) (603) 766-1420
(C) (603) 397-2601

Todd Croteau
General Foreman-Highway/Facilities
(W) (603)766-1428
(C) (603)498-1667

Al Pratt
Water Resource Manager, Public Works
(W) (603) 766-1538
(C) (603) 520-0622

Fire Chief Fire Department	603-610-7353 603-427-1515
New Hampshire Dept. of Environmental Services (M-F, 8-4) New Hampshire State Police (Weekends & Evenings)	603-271-3899 603-223-4381
Cleanup Contractors	
United Industrial Services Clean Harbors Enpro Services Inc.	203-238-6745 603-224-6626 800-966-1102
National Response Center Spill Hotline	**(800) 424-8802**

APPENDIX G

NH DES SPILL REPORT FORM

WMD Site No: _____
Project No: _____
Project Type: _____

DEPARTMENT OF ENVIRONMENTAL SERVICES
WASTE MANAGEMENT DIVISION
Hazardous Waste or Petroleum
Spill Reporting Form

GUIDELINES FOR REPORTING A SPILL

1. Report the spill to your local 911responder or fire department.
2. Call DES Spill Response & Complaint Section and provide as much of information listed below as possible.
   Monday – Friday, 8 am to 4 pm (603) 271-3899
   Weekend and Evenings (603) 223-4381 State Police Dispatch
3. Follow up the call to DES by submitting a completed spill reporting form. Email the completed form to orcb.wmd@des.nh.gov by highlighting, copying and paste the information onto the email.

Date Spill Reported to DES: _____ Time:_____

Your Name:_____

Mailing Address:_____

Town: _____State: _____Zip:_____

Home Telephone #:_____Work Telephone #:_____Email :_____

Company or Person Responsible

Business or Individual Name:_____

Mailing Address:_____

Town: _____State:_____ Zip:_____ Telephone #:_____

Spiller Contact Information - Name:_____ Title:_____

Telephone #:_____ Email:_____

Spill Location

Site Name: _____

Town:_____

Street Address:_____

Directions to Site:_____

Spill Information

Substance spilled : _____ Amount:_____ Units:(gallons):_____

Date of Spill:_____ Time of Spill:_____

Cause of Spill:_____

How was Spill Detected:_____

Areas Impacted or Will Be Impacted
(Soil, Surface Water, Wetlands, Drinking Water Well)

Impacted Areas: _____ Distance from Spill: _____

_____ _____

Potentially Impacted Areas: _____ Distance from Spill_____

_____ _____

Attached sampling results, if any.

Response Company

Company Name:_____

Mailing Address:_____

Town: _____State:_____ Zip:_____ Telephone #:_____

Contact Information – Name: _____ Title:_____

Telephone #:_____ Email:_____

Response Action

Attach response reports, if any.

Others Notified

Have you notified the person or party you believe is responsible? Yes ___ No ___

Have you reported this spill to local officials? Yes ___ No ___

If Yes, Town:_____ Department:_____

Representative's Name:_____

Spill Site Property Owner Information (Optional)

Property Owner Name:_____

Mailing Address:_____

Town: _____State: _____Zip:_____

Telephone #:_____

APPENDIX H

NH DES OIL SPILL REPORTING FACT SHEET

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

WMD-REM-13 2011

Reporting Oil Spills, Hazardous Waste Spills and Groundwater Contamination

The State of New Hampshire has statutory and regulatory requirements regarding the reporting of discharges of both petroleum products and hazardous wastes. To promote compliance with these "duty to report" requirements, the following excerpts are presented from the appropriate laws and regulations.

IN THE EVENT OF A HAZARDOUS WASTE SPILL

Duty To Report, N.H. Hazardous Waste Management Act RSA 147-A:11,

1. Any generator, operator, transporter, or employee of a hazardous waste facility who becomes aware of any storage, treatment, or disposal of hazardous waste in violation of this chapter shall immediately report the violation to the NH Department of Environmental Services Waste Management Division.

2. Any person who fails to give notice as required by RSA 147-A:11,1, shall be guilty of a misdemeanor if a natural person, or guilty of a felony if any other person.

3. Each day of a continuing violation shall constitute a separate offense.

Immediate Action, "Requirements for Hazardous Waste Generators" Env-Wm 500,

The generator shall report any discharge of hazardous waste or discharge of any material which when discharged becomes a hazardous waste that poses a threat to human health or the environment, for example, into storm or sanitary sewers, onto the land or into the air, groundwater or surface waters. Notification shall be both:

1. Immediately, not to exceed one hour from discharge discovery, to local fire department

2. Immediately, not to exceed one hour from discharge discovery, to the DES Emergency Response group at (603) 271-3899 (Monday through Friday, 8 a.m. to 4 p.m.), or to the New Hampshire Department of Safety at (603) 223-4381, 24 hours/day).

APPENDIX I

ABOVEGROUND STORAGE TANK INSPECTION CHECKLIST

Aboveground Storage Tank Inspection Form

Portsmouth Department of Public Works
680 Peverly Hill Road

ITEM	NO	YES	DESCRIBE CORRECTIVE ACTION / DATE COMPLETED
Recycling Center - TANK #1 (265-gallon Used Oil)			
Are there any signs of oil on the ground outside of tank?			
Are there any signs of tank corrosion?			
Is fill port un-secure (i.e., open and unlocked)?			
Is vent cap and vent pipe compromised or not operating properly?			
Is there any oil or liquid in the interstitial space (use dip stick)?			
Is there any oily debris or oil-filled containers near the tank?			
Other Issues:			
Oil Storage Room - Tank #2 (400-gallon New Motor Oil)			
Is there any oil on the floor around the tank?			
Are the spill pans and absobent pads full/saturated; need to be changed/disposed of?			
Is there any oil or liquid in the interstitial space?			
Is the fill gauge above 3/4 full?			
Gauge Reading? _____			
Are the spill materials stocked and easily accessible?			
Other Issues:			
Oil Storage Room - Tank #3 (400-gallon New Hydraulic Fluid)			
Is there any oil on the floor around the tank? .			
Are the spill pans and absobent pads full/saturated; need to be changed/disposed of?			
Is there any oil or liquid in the interstitial space?			
Is the fill gauge above 3/4 full?			
Gauge Reading? _____			
Other Issues:			

APPENDIX J

TRAINING CERTIFICATION FORM

TRAINING CERTIFICATION FORM
SPILL PREVENTION CONTROL AND COUNTERMEASURES

The undersigned has received training on spill prevention procedures and implementation of spill response procedures in accordance with 40 CFR and this facility's SPCC Plan.

PRINTED NAME	SIGNATURE

TRAINING DATE: _____

INSTRUCTOR (NAME AND SIGNATURE): _____

* extra copies of this page may be made as needed and shall be retained on file as per Section 9 of the SPCC Plan.

APPENDIX K

SPILL RESPONSE EQUIPMENT

The following spill equipment is on site and available for emergency spill response operations. The equipment will be stored in the vicinity of all petroleum storage tanks.

Spill Kits:

• Oil absorbing sheets • Oil absorbing boom • "Speedy-dri" • Shovel • Broom • Plastic Container	• Drain Blocker Mat (if applicable) • Personal Protective Equipment (boots, face shields, respirators) • Disposable Nitrile Gloves

For larger spills or spills of greater impact, DPW has access to equipment that can mitigate the environmental and human-health impact and perform remediation in some instances. The available resources include:

EQUIPMENT	QUANTITY	USE/CAPABILITY
2-yard Front-end Loader	2	Place absorbent, construct berms
1-yard front–end loader	1	Same as above
2.5-ton dump truck	3	Haul contaminated soil and sand for berms
1-ton dump truck	1	Spread sand on oil spill
Sander	3	Spread sand on oil spill
1 "Bobcat" utility tractor	1	Place absorbent, construct berms and remove contaminated soil

APPENDIX L

SPCC NOTICES

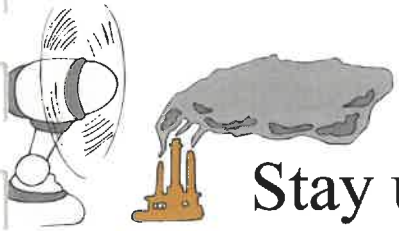
IN THE EVENT OF A LARGE SPILL OR SIGNIFICANT INCIDENT

Notify Immediately

(After hours contact the persons and numbers provided below)

Secure the area

(Do not allow other vehicles or people in or through the vicinity of the spill / incident)



Stay up wind of smoke or fire

If it is safe, secure the source of the spill

If it is safe, use appropriate materials in spill kit to contain and/or clean up spill

After hours contact numbers:

Notify **one** of the following:

General Foreman	498-1667
Public Works Director	498-6101
Public Works Deputy Director	397-2601

In the Event an Employee Notifies You of a Spill or Significant Incident

Obtain following information:

- Injuries?
- Current situation (including any health or fire hazards)
- Action taken to contain spill

Ensure appropriate actions taken to control situation

- People and vehicles evacuated preventing injuries or further hazards
- source of spill secured
- if fire/smoke from packer – that waste in packer is compressed
- absorbent material dispersed
- stay up wind of smoke or fire
- contact fire dept as necessary

Make subsequent necessary notifications

Contact one of the following:

Todd Croteau
Peter Rice
Brian Goetz

If spill discharge of oil is in "harmful quantities" notify the NRC within 2 hours of incident (800-424-8802)

Contact Spill Clean up Contractor (as appropriate)

United Industrial Services 1-203-238-6745
Clean Harbors Inc. 603-224-6626
Enpro Services Inc. 1 (800) 966-1102

Manifest any hazardous waste removed from site
- Always discuss this manifesting with Peter or Brian *prior* to signing and ensure copies are given to Solid Waste Coordinator

IN THE EVENT OF A SPILL

(NO MATTER HOW SMALL)

You are responsible to clean it up

- **Secure source of spill**
- **Disperse absorbent material**
  (gloves, absorbent pads, etc. in yellow spill kit next to gas pumps)
- **Clean up used material**
- **Waste may be disposed in the trash**

This practice is required by this facility's Spill Prevention Control and Counter Measure Plan, and Storm Water Pollution Prevention Plan as part of compliance with the Federal Clean Water Act as implemented by the EPA.

ENVIRONMENTAL
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NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

WMD-REM-3 2014

Monthly Inspection Guidelines for Aboveground Petroleum Storage Tanks

Owners of regulated aboveground storage tanks (ASTs) are required by Administrative Rules Part Env-306.07 to inspect their AST facilities not less than monthly. The records showing the results of the monthly inspection must be maintained for at least three years. The purpose of the inspection is to identify conditions at an AST facility that could result in a release from a tank, piping or fitting to the environment, if not corrected in a timely manner.

Who must inspect their tanks?
Owners of regulated AST facilities must inspect all their tanks at least monthly. Regulated AST facilities include:

- Those facilities having a single aboveground storage tank system with an oil storage capacity of more than 660 gallons, and
- Those facilities with two or more aboveground storage tank systems, to include 55-gallon drums, having a combined oil storage capacity of more than 1,320 gallons intended for storage, transfer, or distribution of oil as defined in RSA 146-A:2,III.

Regardless of other oil storage, ASTs which store heating oil (to include used engine, transmission, gear, or hydraulic oil) used solely for heating an on-premise structure are exempt from the requirements of Env-Or 300 if they have a combined storage capacity of 1,320 gallons or less.

What must be inspected?
Pursuant to Env-Or 306.07(a & b), a monthly inspection shall include:

- Deficiencies such as leaks, surface wetting, discoloration, blistering or evidence of corrosion, cracks, chime distortion or other structural damage;
- Cracks, areas of wear, visible shell thinning, evidence of poor maintenance and operating practices, excessive settlement of structures, separation or swelling of tank or piping insulation, malfunctioning equipment, and structural and foundation weaknesses;
- For insulated tanks and insulated piping, all exterior surfaces of insulation. For other than insulated tanks and insulated piping, all exterior surfaces of tank and piping;
- All secondary containment, pipes, valves and other associated equipment;
- All exterior surfaces of tank and piping supports; and

- All visible system components of each high level alarm and each leak detection system which is in place at the facility.

How should the inspection be performed?
The monthly inspection is generally intended to be visual in nature. Each AST facility and system is different in terms of tank size, style, contents and sophistication. Facility owners may use the inspection form created by their engineer for their Spill Prevention, Control and Countermeasure (SPCC) Plan provided that is inclusive of the requirements of Env-Or 306.02 or create their own. The important element is that the facility be inspected at least monthly and the results of the monthly inspection are documented, signed and retained for three years.

What if an inspection identifies a deficiency?
If it appears that a failure that could result in a release is eminent, the owner shall immediately implement measures to prevent the release per Env-Or 306.10. If a lesser deficiency is identified during an inspection, NHDES expects the owner to correct it as soon as practical but no later than 30 days. There is no need to notify NHDES of a deficiency unless a release of petroleum has been discovered or is suspected. The release shall be reported to NHDES in accordance with Env-Or 600. The action taken to correct the deficiency should be noted on the inspection form.

How will this inspection requirement be enforced?
Owners of AST systems are required by Env-Or 306.07 to keep records of the monthly inspection for a period of not less than three years. Maintaining a file of completed, signed and dated monthly check-off lists will meet the intent of this rule. DES will review the content of monthly inspection files during facility visits and compliance inspections.

Facility owners should be aware that compliance with Env-Or 300 is a requirement for access to state funds otherwise available to reimburse the owner of expenses associated with the cost of cleaning up an oil spill should one occur. Maintaining documented evidence of routine inspections is necessary to remain in compliance.

Who do I contact for more information?
For more information concerning AST facilities or the New Hampshire Oil Spill Cleanup Reimbursement Funds, please contact the Oil Remediation and Compliance Bureau at (603) 271-3899, or visit the NHDES website at http://des.nh.gov/organization/divisions/waste/index.htm.

NFPA 704 RATINGS and ID NUMBERS for COMMON HAZARDOUS MATERIALS

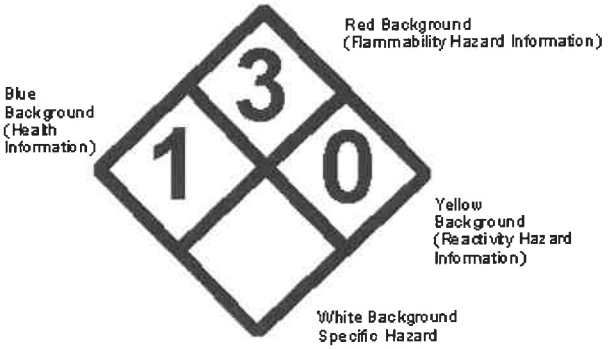
	Blue (Health)	Red (Fire)	Yellow (Reactivity)	White	UN/NA#
Acetone	1	3	0		1090
Acetylene	0	4	3		1001
Alcohol, Ethyl	0	3	0		1170
Alcohol, Methyl	1	3	0		1230
Ammonia, Anhydrous	3	1	0		1005
Antifreeze (Ethylene Glycol)	1	1	0		1142
Butane	1	4	0		1011
Calcium Hypochlorite	3	0	1	OX	2880
Cal Hypochlorite, solid	3	0	1	OX	2208
Carbon Dioxide, Liquid CO_2	3	0	0		2187
Chlorine Gas	4	0	0	OX	1017
Diesel Fuel	1	2	0		1993
Epoxy resins	2				
Formaldehyde, solutions	3	2	0		2209
Formaldehyde, flammable sol.	3	4	0		1198
Gas, Natural	1	4	0		1971
Gasoline, Automotive	1	3	0		1203
Hydrogen Chloride, anhydrous	3	0	1		1050
Hydrogen Chloride, refrigerated	3	0	1		2186
Jet Fuels (Jet A & Jet A-1)	0	2	0		
Jet Fuels (Jet B & JP-4)	1	3	0		
Jet Fuels (JP-5)	0	2	0		
Kerosene	0	2	0		1223
Lacquer Thinner	0	2	0		
Lime (Calcium Oxide)	3	0	1		1910
Methyl Ethyl Ketone	1	3	0		1193
Motor Oil	0	1	0		1270
Muriatic Acid (Hydrochloric)	3	0	0		1789
Nitic Acid Fuming	4	0	1	OX	2032
Nitric Acid >40%	4	0	0	OX	2031
Nitric Acid ≤40%	3	0	0		1760
Nitrogen, Refrigerated liquid	3	0	0		1977
Nitrogen, Compressed gas	0	0	0		1066
Oxygen, Refrigerated liquid	3	0	0	OX	1073
Oxygen, Compressed Gas	0	0	0	OX	1072
Paint, Latex	1	0	0		
Paint, Oil based	1	2	0		1263
Paint, Lacquer	2	3	0		1263
Perchloroethylene	2	0	0		1897
Petroleum Solvent/Naphtha	1	4	0		1271
Propane	1	4	0		1978
Pool Chlorine/Bleach Sodium Hypochlorite <50%	3	0	0	OX	1791
Sodium Hydroxide	3	0	1		1824
Stoddard Solvent	2	2			1271
Styrene	2	3	2		2055
Sulfuric Acid	3	0	2	W	1830
Waste Motor Oil	Not Rated				

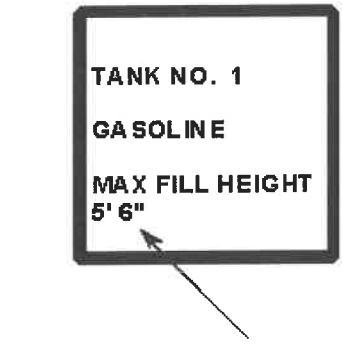
color contrasting with the color of the tank. Decals meeting the size and color criteria described above permanently affixed to each tank are also acceptable.

Where should the markings be placed?
The markings should be placed directly on the tank at a location that is visible to the person filling the tank. If no portion of the tank is visible (e.g., the tank is filled from a remote filling location), then this information should also be placed at a location readily observed while the tank is being filled, whether it be on a structure containment wall, a building wall, etc.

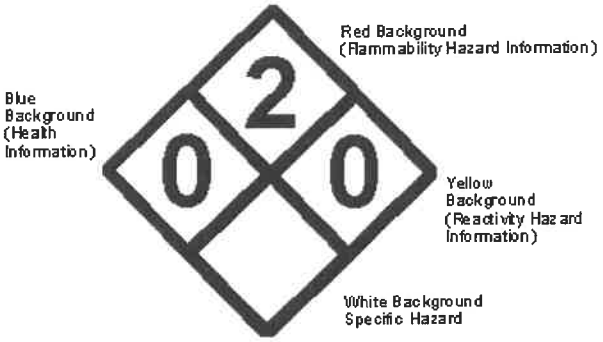
What does the NFPA decal look like?
The NFPA decal, also known as the hazard identity system, consists of a diamond shape symbol that provides emergency response personnel with information concerning the health hazard, fire hazard, reactivity hazard and any specific hazard the contents of the tank may exhibit. These hazards are represented using a standard rating system to ensure consistency. Therefore, a tank storing diesel fuel will always display the same hazard codes. A picture of the appropriate decal for the various petroleum products typically stored in ASTs is shown below.

NFPA Symbol for
Gasoline, Crude Oil,
Aviation Gas, and JP-4





NFPA Symbol for Diesel Fuel,
Fuel Oil (No.2- No. 6)
Kerosene, JP-1 JP-3, and JP-5



Note:
Asphalt and Motor Oil have
the following symbols:

Health (Blue) - 0
Flammability (Red) - 1
Reactivity (Yellow) - 0
No specific hazard symbol

DISCLAIMER: Information contained in this Fact Sheet is current as of February 7, 2014. Statutory or regulatory changes that may occur after than date may cause part or all of the information to become invalid. If there are any questions concerning the current status of this information, please contact us at (603) 271-3899.

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WMD-REM-2 2014

Marking Requirements for Aboveground Petroleum Storage Tanks (ASTs)

Permanent tank markings indicating the product stored and system specifications are required for all aboveground storage tanks (ASTs) that are regulated by Env-Or 300. Tank markings have been a requirement for all regulated tanks since April 25, 2000. Regulated AST facilities include:

- Those facilities having a single aboveground storage tank system with an oil storage capacity of more than 660 gallons, and
- Those facilities with two or more aboveground storage tank systems, to include 55-gallon drums, having a combined oil storage capacity of more than 1,320 gallons intended for storage, transfer, or distribution of oil as defined in RSA 146-A:2,III.

Regardless of other oil storage, ASTs which store heating oil (to include used engine, transmission, gear, or hydraulic oil) used solely for heating an on-premise structure are exempt from the requirements of Env-Or 300 if they have a combined storage capacity of 1,320 gallons or less.

What do the required markings consist of?
New Hampshire requires four items of information to be permanently painted or affixed to each regulated AST. These include:

1. The tank number. For most small facilities, this will likely be Tank No. 1, No. 2, etc. The tank number painted on the tank (or permanently affixed to the tank) shall coincide with the number on the registration form submitted to the Department of Environmental Services (NHDES) by the facility owner.
2. The petroleum product stored in the tank (diesel, gasoline, No. 2 fuel oil, used oil for recycling, etc.)
3. The safe fill volume or fill height. This level corresponds to the product level that will activate the high level alarm installed on the tank. New Hampshire regulations require the installation of high-level alarms on all regulated ASTs (please see NHDES Fact Sheet WMD-REM-1 for more information on alarm system requirements).
4. The appropriate national fire rating system symbol as established by NFPA-704, Identification of Fire Hazards and Materials (known as the NFPA 4-color hazard identity symbol).

What should the marking look like?
Pursuant to Env-Or 305.03, all lettering shall be at least 2 inches high and shall be painted in a

SARA SECTIONS 311 AND 312: This product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):
Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

SARA SECTION 313: This product may contain "toxic" chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

CERCLA: This product may contain "hazardous substances" listed pursuant to Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA: Not available.

CALIFORNIA: This product is not for sale or use in the State of California.

CANADIAN REGULATIONS
WHMIS: Not regulated

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): Not available.

SECTION 16: OTHER INFORMATION

REVISION INFORMATION: Change from MSIS to MSDS.

LABEL/OTHER INFORMATION: Not available.

REPRODUCTIVE TOXICITY: Based on best current information, there may be reproductive toxicity associated with this product.

TERATOGENICITY: Based on best current information, there may be teratogenicity associated with this product.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there may be toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: Not available.
As per 40 CFR Part 51.100(s).

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated.

TDG: Not regulated.

EMERGENCY RESPONSE GUIDE NUMBER: Not applicable.
Reference *North American Emergency Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS SARA SECTIONS 302 AND 304: Based on the ingredient(s) listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

INCOMPATIBILITY: Avoid acids, alkalies, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

REACTIVITY: Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. Also see **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS**.

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION: Based on best current information, there may be known human sensitization associated with this product.

MUTAGENICITY: Based on best current information, there may be mutagenicity associated with this product.

CARCINOGENICITY: Mineral oils, untreated or mildly treated are listed by IARC as a known carcinogen. Mineral oils, untreated or mildly treated are classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are listed by OSHA as known carcinogens. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are listed by IARC as known, probable, or possible carcinogens. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are classified by NTP as known carcinogens or as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are recognized by ACGIH as confirmed or suspected human carcinogens.

Also see **SECTION 3: CANCER INFORMATION**.

PERSONAL HYGIENE:	Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with the product.
OTHER PROTECTIVE EQUIPMENT:	Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR:	Liquid, black and viscous (thick), petroleum odor.
ODOR THRESHOLD:	Not available.
MOLECULAR WEIGHT:	Not applicable.
SPECIFIC GRAVITY:	0.8 to 1.0 at 60°F (15.6°C) (water = 1)
DENSITY:	6.7 to 8.3 LB/US gal (800 to 1000 g/l) (approximately)
VAPOR DENSITY:	greater than 1 (air = 1) (based on kerosene)
VAPOR PRESSURE:	Not available.
BOILING POINT:	Not available.
FREEZING/MELTING POINT:	Not available.
pH:	Not applicable.
EVAPORATION RATE:	less than 1 (butyl acetate = 1)
SOLUBILITY IN WATER:	Slight.
FLASH POINT:	>200°F (93°C) (minimum) Pensky-Martens Closed Cup
FLAMMABLE LIMITS IN AIR:	Not available.
AUTOIGNITION TEMPERATURE:	Not available.

SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, storage tanks, tanker trucks, and rail tank cars should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORT INFORMATION** for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use general ventilation, process enclosures, local exhaust ventilation, or other engineering controls to control air-borne levels. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

EYE PROTECTION: Wearing chemical goggles is recommended.
Contact lens may be worn with eye protection.

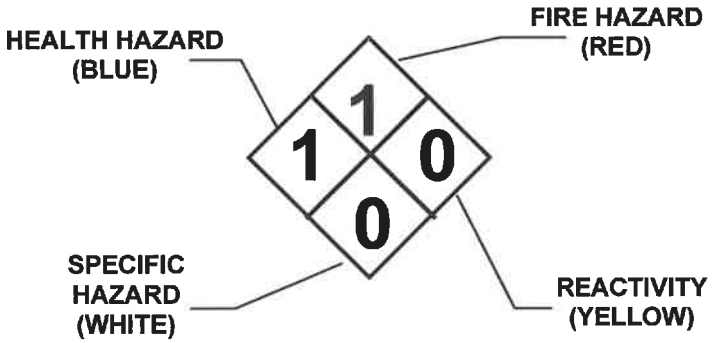
SKIN PROTECTION: Where prolonged or repeated skin contact is likely, wear neoprene, nitrile (4 mil minimum), PVC (polyvinyl chloride), or equivalent protective gloves; wearing natural rubber or equivalent gloves is not recommended.

When product is heated and skin contact is likely, wear heat-insulating gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

NFPA 704 HAZARD IDENTIFICATION:

This information is intended solely for the use by individuals trained in this system.



FIRE FIGHTING INSTRUCTIONS:

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:

Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface waters and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **SECTION 15: REGULATORY INFORMATION.**

SECTION 4: FIRST AID MEASURES

INHALATION: (BREATHING)	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.
EYES:	If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.
SKIN:	Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.
INGESTION: (SWALLOWING)	Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.
NOTE TO PHYSICIANS:	Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:	>200°F (93°C) (minimum) Pensky-Martens Closed Cup
FLAMMABLE LIMITS IN AIR:	Not available.
AUTOIGNITION TEMPERATURE:	Not available.
HAZARDOUS COMBUSTION PRODUCTS:	Decomposition and combustion materials may be toxic. Burning may produce phosgene gas, nitrogen oxides, carbon monoxide, and unidentified organic compounds.
CONDITIONS OF FLAMMABILITY:	Heat, sparks, or flame. Product may burn but does not ignite readily.
EXTINGUISHING MEDIA:	Use carbon dioxide, regular foam, dry chemical, water spray, or water fog.

POTENTIAL HEALTH EFFECTS

Effects may vary depending on material composition. Typical effects may include:

INHALATION (BREATHING): High concentrations of vapor or mist may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES: May cause irritation.

SKIN: May cause irritation. Product may be absorbed through the skin and cause harm as noted under **INHALATION (BREATHING)**.

INGESTION (SWALLOWING): May be harmful or fatal if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing cardiovascular, liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause oil pneumonia, lung tissue inflammation, fibrous tissue formation, and/or toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

CANCER INFORMATION: This product contains mineral oils, untreated or mildly treated, which can cause cancer. This product may contain hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics which can cause cancer. Risk of cancer depends on duration and level of exposure. For more information, see **SECTION 11: CARCINOGENICITY**.

POTENTIAL ENVIRONMENTAL EFFECTS

Product may be toxic to fish, plants, wildlife, and/or domestic animals.
Also see **SECTION 12: ECOLOGICAL INFORMATION**.

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

				OSHA PEL		ACGIH TLV®			
WT%	NAME	SYNONYM	CAS NO.	TWA	STEL	TWA	STEL	LD[a]	LC[b]
80 to 100	Lubricating oils, used	Used oil	70514-12-4	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 20*	Water/solids	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 10*	Hydrocarbon solvents. May include gasoline, diesel fuel, jet fuel, mineral spirits, etc.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 1.5*	Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel, and others: each below 1.0 WT%.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 1.0*	Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3 WT%.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 0.5*	Chlorinated solvents.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.

N.Av. = Not Available

*Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

[a] Oral-Rat LD_{50} (mg/kg)

[b] Inhalation-Rat LC_{50}

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE
Liquid, black and viscous (thick), petroleum odor.

WARNING!
PHYSICAL HAZARDS
Combustible liquid.

HEALTH HAZARDS
May be harmful if inhaled.
May be harmful if absorbed through skin.
May be harmful or fatal if swallowed.
May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.
Suspect cancer hazard. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.
Contains material which can cause birth defects.
Contains material which can cause central nervous system damage.

ENVIRONMENTAL HAZARDS
Product may be toxic to fish, plants, wildlife, and/or domestic animals.

USED OIL

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **USED OIL**

SYNONYMS: Waste oil; Used lubricating oil; Oil and water mixture

PRODUCT PART NUMBER(S): Not applicable.

PRODUCT USE: Oil or water mixture for re-refining or reprocessing.
If this product is used in combination with other products, refer to the Material Safety Data Sheets for those products.

These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.

24-HOUR EMERGENCY PHONE NUMBERS MEDICAL AND TRANSPORTATION (SPILL):

1-800-468-1760

MANUFACTURER/ SUPPLIER: Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1 then Extension 7500

MSDS FORM NUMBER: 81451

ISSUE: September 20, 2007

ORIGINAL ISSUE: January 15, 1990

SUPERSEDES: June 11, 2007

PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

10. If I have many chemicals in a storage room or if I have mixtures of chemicals, what ratings should I use on the NFPA 704 placard?

Section 4.2.3.3 of NFPA 704 provides three different methods to rate multiple chemicals. In addition, professional judgment must still be used to increase or decrease the rating to more accurately assess the degree of hazard, perhaps due to quantities, or synergistic effects of the chemicals, etc. The ratings for a chemical that contains multiple ingredients should be obtained from data for the mixture as presented on the SDS.

11. How do OSHA's Hazard Communication Classification Numbers differ from NFPA 704 Ratings?

The NFPA 704 standard and OSHA's Hazard Communication standard were developed for different purposes. Now that OSHA has adopted GHS both systems involve numbers leading to many questions about how the two numbers systems relate.

The NFPA 704 standard is widely used and recognized by fire and emergency responders and safety personnel for identifying the hazards of short term/acute exposure to materials under conditions of fire, spill, or similar emergencies. OSHA's Hazard Communication Standard (HCS) provides information for workers exposed to materials primarily under normal conditions of use.

With OSHA's recent incorporation of the Globally Harmonized System (GHs) into its HCS, it is important to realize that the GHS numbers are not relative ratings of hazards but rather used for the purpose of classifying hazards into categories for proper labeling and training information. These GHS numbers **ARE NOT** relative hazard ratings and in fact have an inverse number systems with 1 being the most hazardous and 4 being the least hazardous. It is important to understand the differences between the two systems.

For more information, NFPA and OSHA have developed a "Quick Card" to explain the two systems and their differences. The downloadable card can be found **here**.

12. Where can I get NFPA 704 related materials?

The 2012 edition of NFPA 704 can be accessed for **free** by going to www.nfpa.org/704. In addition NFPA 704 and the *Fire Protection Guide to Hazardous Materials*, 2010 edition can be purchased by clicking on the Products and Training tab at the www.nfpa.org/704 page or by calling (800) 344-3555.

13. I have additional questions?

NFPA members and code enforcers may submit questions to technical staff by phone at 1-800-344-5555 or submit questions on line by going to www.nfpa.org/704 and clicking on the Technical Questions tab.

6. Who provides NFPA 704 ratings and can I find those ratings in the Standard?

While the system is simple in application, the hazard evaluation should be performed by persons who are technically competent and experienced in the interpretation of the hazard criteria as set forth in Chapters 5-8 of the NFPA 704 standard. A qualified individual can determine the ratings for a material by comparing data from the manufacturer-supplied safety data sheets (SDSs) to the criteria located in NFPA 704. Though it is not required, some SDSs include the NFPA 704 diamond symbol with ratings, and some SDS provide the NFPA 704 rating numbers within text of the SDS. *(See Question 7)*

While the criteria are located in NFPA 704, the actual ratings for specific chemicals are not included in the document. The NFPA Fire Protection Guide to Hazardous Materials includes two withdrawn NFPA documents that contain hazard property information based on previous editions of NFPA 704 and include NFPA ratings for numerous chemicals. This information can be used for guidance, however ultimately the user is responsible for rating materials using the SDS and the criteria located in the latest edition of NFPA 704.

7. What information on the SDS do I use to rate my hazardous materials?

The ratings can be determined by using the information found on a HazCom 2012 compliant Safety Data Sheet (SDS) and comparing it to the criteria provided in NFPA 704. The following sections of the SDSs should be reviewed when determining the ratings:

Health – Sections 2, 4, 8, 9, 11
Flammability – Sections 2, 3, 9
Instability – Sections 5, 7, 10
Special Hazards – Sections 5, 9, 10, 11

Caution!! Do NOT use the hazard category numbers given in section 2 of HazCom 2012 compliant SDSs as hazard ratings to be placed on 704 labels! *(See Question 11 for additional information).*

8. Where should I post the NFPA 704 placards at my facility and how many placards should I use?

It is important to note that the placard is meant to provide quick hazard information for emergency responders. It should be visible in case of an emergency where the responders are likely to enter. If there are numerous areas where the responders could enter the facility, there should be numerous placards. The placement and quantity should be decided using a facility's best judgment coupled with the advice from your Authority Having Jurisdiction. At a minimum the placard should be posted on the two exterior walls of a facility or building, each access to a room or area, or each principal means of access to an exterior storage area. Section 4.3 of NFPA 704 provides guidance on locations for posting.

9. What size placard is required for NFPA 70?

The size of the placard is dependent on the distance at which the hazard ratings must be legible. Chapter 9 of NFPA 704 provides guidance on both the size of the hazard ratings relative to the size of the placard to be posted and the minimum size of ratings based on the distance at which the ratings are legible.

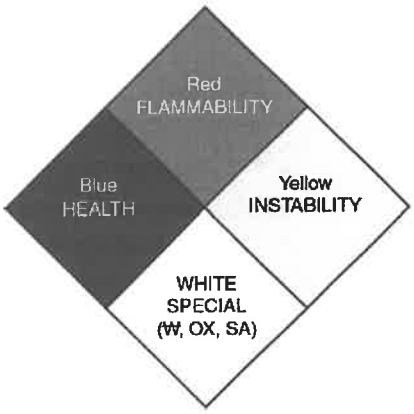
NFPA 1, Fire Code
NFPA 30, Flammable and Combustible Liquids Code
NFPA 45, Standard on Fire Protection for Laboratories Using Chemicals
NFPA 55, Compressed Gases and Cryogenic Fluids Codes
NFPA 400, Hazardous Materials Code

In addition, some facilities choose to utilize the NFPA 704 placards regardless of actual requirements in order to provide additional information on the hazards of the materials on site.

4. Why should I use the NFPA 704 rating system?

NFPA 704 labels provide an appropriate signal or alert for the protection of emergency response personnel, assist in planning for effective fire and emergency control operations, including cleanup. It can also assist all designated personnel, engineers, plant, and safety personnel in taking inventory and evaluating the relative hazards of materials in their facility.

5. How is the rating displayed?



The system is characterized by the "diamond" that is actually a "square-on-point" shape. It identifies the hazards of a material and the degree of severity of the health, flammability, and instability hazards. Hazard severity is indicated by a numerical rating that ranges from zero (0) indicating a minimal hazard, to four (4) indicating a severe hazard. The hazards are arranged spatially as follows: health at nine o'clock position, flammability at twelve o'clock position, and instability at three o'clock position. In addition to the spatial orientation that can be used to distinguish the hazards, they are also color-coded as follows: blue for health, red for flammability, and yellow for instability. The shades of red, blue and yellow are not regulated, but should be contrasting colors. The hazard ratings may have colored backgrounds with contrasting colored numerals or colored numerals with a white background.
(See Section 4.1.5 and Figure 9.1(a) of NFPA 704)

The six o'clock position on the symbol represents special hazards and has a white background. The special hazards in use include ~~W~~, OX and SA. ~~W~~, indicates unusual reactivity with water and is a caution about the use of water in either firefighting or spill control response. OX, indicates that the material is an oxidizer. SA, indicates that the material is a simple asphyxiant gas (nitrogen, helium, neon, argon, krypton or xenon.) *(See 8.2.1 through 8.2.4 of NFPA 704)*

5. What other symbols can go in the special hazards quadrant of the "diamond"?

The only authorized symbols are the ~~W~~, OX, and SA symbols described above. The number of symbols is kept to a minimum for emergency visibility and simplicity reasons. Many people ask about placing additional symbols such as "corr" for corrosive or "acid" for acids, but these hazards are already taken into account in the health rating that is located in the blue section of the symbol.

Frequently Asked Questions on NFPA 704

Standard System for the Identification of the Hazards of Materials for Emergency Response

1. What is NFPA 704?

NFPA 704 provides a simple, readily recognized, easily understood system for identifying the specific hazards of a material and the severity of the hazard that would occur during an emergency response. The system addresses the health, flammability, instability, and special hazards presented from short-term, acute exposures that could occur as a result of a fire, spill, or similar emergency.

2. How does the 704 label differ from other hazardous material labels?

There are several widely used systems for labeling hazardous materials. Each has a specific purpose and it is important to recognize the differences between each. Table 1 provides a brief summary of the purpose and use of three common labeling systems used for hazardous materials. Note that you may see more than one label on a container depending on the situation. *(See Question 11 for additional information on the differences between OSHA HazCom 2012 classifications and NFPA 704 ratings)*

Label Type	Purpose	Typical Label Location	Label Example
NFPA 704 Diamond www.nfpa.org/704	Provides information about hazards that occur during emergency response	Outside buildings, on doors, on tanks, visible to emergency responders during spill or fire	
DOT Placard www.dot.gov/	Provides information about hazards to transportation workers and emergency responders	Tank cars, cargo tanks, portable tanks, bulk packages, vehicles or containers containing non-bulk packages	
OSHA HazCom 2012 www.osha.gov/	Provides information about hazards to workers using chemicals under normal conditions of use	Pipes, drums, and containers of materials that are used in the workplace	

Table 1. NFPA, DOT and OSHA Placard and Pictograms

3. When am I required to use the NFPA 704 rating system?

NFPA 704 labels are required when another Federal, state or local regulation or code requires their use. NFPA 704 does not specify when a container, tank or facility must label with the 704 diamond. It tells you HOW to label when another code, standard or an AHJ (Authority Having Jurisdiction, such as the local fire department) requires such labeling.

Some of the more widely adopted and used NFPA codes that require 704 labels for specific occupancies, storage, and hazardous materials, include: