



Addendum #1

BID #2874

Storm Water Industrial General Permit Compliance Services and SPCC Training
Hamden, Connecticut

Question #1: With regards to Town of Hamden Bid #2874 (Storm Water and SPCC Compliance Services), can you specify how many storm water outfalls (monitoring locations) are present at the Public Works Garage, Public Works Maintenance Garage and Transfer Station/Landfill?

Answer #1: Please see the attached reports.

Question #2: We would also like to know what storm water parameters (list of analytes or copy of latest Storm water Monitoring Reports, SMRs) are still being monitored at these locations, under the CTDEEP storm water permit

Answer #2: Please see the attached reports.

Question #3: Is a bid security of 5% required per the ITB document?

Answer #3: Yes

Question #4: How is the town evaluating responses, i.e. is award based on the consultant with the lowest fee or best qualifications, or a combination of both?

Answer #4: Both

Question #5: Is any other information required in our response other than the forms that are included at the end of the ITB document?

Answer #5: Just what is required on the Bid.

April 23, 2019



September 18, 2018

Mark Austin, P.E.
Town of Hamden
2750 Dixwell Avenue
Hamden, CT 06518

RE: 2018 QUARTERLY STORMWATER MONITORING REPORTING, DEPARTMENT OF PUBLIC WORKS, VOED AND TRANSFER STATION, HAMDEN, CT (HRP #HAM4063.WM)

Dear Mr. Austin:

Attached please find the Stormwater Monitoring Report (SMR) for the quarterly stormwater monitoring attempted by HRP Associates, Inc. (HRP) at the above mentioned facilities for the period covering April 1, 2018 through June 30, 2018. As indicated in the SMR, no qualifying quarterly samples were collected at the Transfer Station during the April 1, 2018 – June 30, 2018 monitoring period. Quarterly visual monitoring is also required under the General Permit at the three facilities (Department of Public Works, VOED and Transfer Station) but could not be conducted during the April 1, 2017- June 30, 2018 monitoring period. Though HRP monitored for storm events during this period, most rain events occurred outside of normal business hours when the facilities were closed.

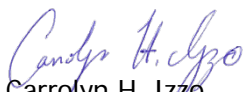
During the current monitoring period (July 1, 2018- September 30, 2018), HRP will attempt to conduct quarterly visual monitoring at the three facilities along with quarterly sampling at the Transfer Station for iron.

The SMR for the sample collection attempt are included in Attachment 1. Please sign the "Statement of Certification" on page 3 of the SMR, make a copy for your records, and submit the signed SMR to CT DEEP to the address below by September 30, 2018:

Water Toxic Program Coordinator
Bureau of Water Protection and Land Reuse
CT Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

If you have any questions or require additional information, please feel free to contact HRP at (860) 674-9570.

Sincerely,


Carolyn H. Izzo
Project Geologist


Darin Lemire, PE
Project Manager

Attachments

cc: Joe Colello, Public Works Dept., 1125 Shepard Avenue, Hamden, CT 06514

ATTACHMENT 1

Stormwater Monitoring Report (for submission to CT DEEP)



**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Stormwater Monitoring Report Form
Sector C – Refuse Systems**

Facility Information

Permittee Name: <u>Town of Hamden</u>	Site Name: <u>Hamden Landfill, Trans. Sta. & Recyc. Ctr</u>
Mailing Address: <u>2750 Dixwell Ave., Hamden, CT 06514</u>	
Contact Person: <u>Mark Austin</u>	Title: <u>Town Engineer</u>
Business Phone: <u>(203) 287-7040</u>	ext.: <u> </u> Email: <u>MAustin@Hamden.com</u>
Site Address: <u>231 Wintergreen Ave., Hamden, CT 06514</u>	
Receiving Water (name/basin): <u>Wintergreen Brook (Basin No. 5304)</u>	
Permit #: GSI <u>001681</u>	Primary SIC: <u>4953</u>
Discharges into an Impaired Waterbody: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If yes, complete the table on page 3 of this form)	

Sample Information

Sample Location: <u>Outfall 001 (Not Sampled)</u>	Person Collecting Sample: <u>No Sample Collected</u>
Date/Time Collected: <u>No Sample collected</u>	Date of Previous Storm Event: <u>No Sample Collected</u>
This report is for samples required: Semi-annually <input type="checkbox"/> Annually <input type="checkbox"/> Other <input checked="" type="checkbox"/>	
Check here if the sample contains snow or ice melt : <input type="checkbox"/>	
Check here if a benchmark exceedance is solely due to background or off site sources <input type="checkbox"/> see note below	

Monitoring Results

*Parameter	Required Frequency	Results (units)	Benchmark	Effluent Limit	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	Exempt	5.0 mg/L	n/a	<input type="checkbox"/>		
Rainfall pH	Semi-annual	Exempt	n/a	n/a	<input type="checkbox"/>		
Sample pH	Semi-annual	Exempt	5-9 SU	*			
COD	Semi-annual	NA	75 mg/L	n/a	<input type="checkbox"/>		
TSS	Semi-annual	NA	90 mg/L	*	<input type="checkbox"/>		
TP	Semi-annual	NA	0.40 mg/L	n/a	<input type="checkbox"/>		
TKN	Semi-annual	NA	2.30 mg/L	n/a	<input type="checkbox"/>		
NO ₃ -N	Semi-annual	Exempt	1.10 mg/L	n/a	<input type="checkbox"/>		
Total Copper	Semi-annual	NA	0.059 mg/L	n/a	<input type="checkbox"/>		
Total Zinc	Semi-annual	NA	0.160 mg/L	*	<input type="checkbox"/>		
Total Lead	Semi-annual	NA	0.076 mg/L	n/a	<input type="checkbox"/>		
24 Hr. LC ₅₀	Annual-Year 1&2	NA	n/a	n/a		NA	NA
48 Hr. LC ₅₀	Annual-Year 1&2	NA	n/a	n/a		NA	NA

* See Additional Sector C Monitoring Section on page 3 of this form.

Exemptions

List here any parameter(s) that will not be sampled for the remainder of the permit term: <small>see note below</small> O&G, pH, NO3-N
--

NOTE: Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

STORMWATER ACUTE TOXICITY TEST DATA SHEET
 (required annually only during Year 1 and Year 2 of the permit)

Site Name: Hamden Landfill, Transfer Station and Recycling Center	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
25% A													
25% B													
25% C													
25% D													
50% A													
50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

REFERENCE TOXICANT RESULTS

Test Species	Date	Reference Toxicant	Source	LC ₅₀
<i>Daphnia pulex</i>				

Additional Monitoring: Sector C – Landfills and Solid Waste Disposal Areas Only


Parameter	Required Frequency	Results (Units)	Benchmark	Effluent Limit	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Total Iron	Quarterly		1 mg/L	n/a	<input type="checkbox"/>		
Effluent Samples*							
BOD	Annually for the entire permit term		n/a	140 mg/L	<input type="checkbox"/>		
TSS	Annually for the entire permit term		n/a	88 mg/L	<input type="checkbox"/>		
Ammonia	Annually for the entire permit term		n/a	10 mg/L	<input type="checkbox"/>		
Alpha Terpineol	Annually for the entire permit term		n/a	0.033 mg/L	<input type="checkbox"/>		
Benzoic Acid	Annually for the entire permit term		n/a	0.12 mg/L	<input type="checkbox"/>		
p-Cresol	Annually for the entire permit term		n/a	0.025 mg/L	<input type="checkbox"/>		
Phenol	Annually for the entire permit term		n/a	0.026 mg/L	<input type="checkbox"/>		
Total Zinc	Annually for the entire permit term		n/a	0.200 mg/L	<input type="checkbox"/>		
Sample pH	Annually for the entire permit term		n/a	6-9 mg/L	<input type="checkbox"/>		

*Annual samples may be taken at the same time as one of the semi-annual samples for the general sampling parameters. An effluent limit applies to any single sample (not average of 4).

Additional Monitoring for Discharges to Impaired Waters (if applicable)

Parameter	Required Frequency	Results (units)	Test Method	Laboratory Name

Statement of Certification

<p>"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."</p>	
Signature of Permittee	Date
Mark Austin, P.E.	Town Engineer
Name of Permittee (print or type)	Title (if applicable)
	9/17/2017
Signature of Preparer (if different than above)	Date
Carrolyn Izzo, HRP Associates, Inc.	Project Geologist
Name of Preparer (print or type)	Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR
 BUREAU OF WATER PROTECTION AND LAND REUSE
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011**

Data Tracking Sheet

Sector C –Refuse Systems

Permittee Name: <u>Town of Hamden</u>	Permit #: GSI <u>001681</u>
Site Name: <u>Hamden Landfill, Transfer Station and Recycling Center</u>	
Site Address: <u>Wintergreen Brook (Basin No. 5304)</u>	
Sample Location: <u>Outfall 001</u>	

Enter the sample dates and the data reported for the four (4) most recent semi-annual or quarterly monitoring sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark**	Qualify for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	Exempt	Exempt			Exempt	5.0 mg/L	Yes, previously
Sample pH*	Exempt	Exempt			Exempt	5-9 S.U.	Yes, previously
COD	430 mg/L	190 mg/L			310	75 mg/L	No
TSS*	400 mg/L	260 mg/L			330	90 mg/L	No
TP	0.90 mg/L	1.0 mg/L			0.95	0.4 mg/L	No
TKN	3.5 mg/L	2.2 mg/L			2.85	2.30 mg/L	No
NO ₃ -N	Exempt	Exempt			Exempt	1.10 mg/L	Yes, previously
Total Copper	<0.030 mg/L	<0.020 mg/L			<0.030	0.059 mg/L	No
Total Zinc*	0.11 mg/L	0.080 mg/L			0.095	0.16 mg/L	No
Total Lead	0.039 mg/L	0.035 mg/L			0.037	0.076 mg/L	No
Total Iron	10 mg/L	11 mg/L			10.5	1.0 mg/L	No

**If the average of the four (4) most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually or quarterly for that parameter for the rest of the permit (current permit expires 9/30/2016).

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample result reported by the testing laboratory was below detection limit, for the purpose of averaging, use a value that is ½ the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to Section 5 e(1)B(iii) for a more detailed explanation.

*Due to effluent limits, landfills and solid waste disposal areas within Sector C are required to monitor annually for nine parameters including sample pH, TSS and Zinc for the entire permit term. The pH of uncontaminated rainfall is also recommended to provide background information. See additional

monitoring for landfills and solid waste disposal areas within Sector C on page 2 of this form for this list of parameters.



MOVE YOUR ENVIRONMENT FORWARD

SPILL PREVENTION, CONTROL & COUNTERMEASURE PLAN

**Town of Hamden Public Works Garage
1125 Shepard Ave
Hamden, Connecticut 06518**

Original Prepared:
May 2012

Revision(s):
April 2013

Prepared By:

HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032

HRP #: HAM4063.WM

Issued On: June 19, 2018



This Spill Prevention Control and Countermeasure (SPCC) Plan was generated at the request of Town of Hamden Department of Public Works by HRP Associates, Inc. (HRP). It is the privileged property of Town of Hamden Department of Public Works and HRP., and is not to be distributed to or shared with anyone other than authorized personnel of Town of Hamden Department of Public Works, HRP Associates, Inc., and/or local, state, or federal regulatory or emergency response authorities. This SPCC plan has been certified by a Professional Engineer and an original copy has been retained by HRP Any changes or modifications made to this plan (other than non-technical amendments such as changes to phone numbers or names) by Town of Hamden Department of Public Works which are not certified by a Professional Engineer negate the Professional Engineer certification and may lead to a violation of the applicable SPCC regulations.

DRAFT

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Table 1	Oil Filled Operation Equipment Oil Storage
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APPENDICES

Appendix A	SPCC Regulations – 40 CFR 112
Appendix B	SPCC Rule Cross-Reference
Appendix C	Spill Reporting Form (Example)
Appendix D	Inspection Logs
Appendix E	Certification of the Applicability of the Substantial Harm Criteria Checklist
Appendix F	Training Documentation Sign-In Form (Example)
Appendix G	Photo Log of Oil Storage Locations
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Appendix I	ConVault Onsite Integrity Testing Procedures

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that (i) I am familiar with the requirements of 40 CFR Part 112, (ii) my agent has visited and examined the facility, (iii) the plan has been prepared in accordance with good engineering practices including the consideration of applicable industry standards, (iv) procedures for required inspections and testing have been established, (v) and the Plan is adequate for the facility.

Michael J. Mastroluca, P.E.

Printed Name of Registered
Professional Engineer
HRP Associates, Inc.
197 Scott Swamp Road, Farmington, CT 06032
860-674-9570

Signature of Registered
Professional Engineer

(Professional Engineer Seal)

Date: _____ Registration No: 22681 State: Connecticut

Note: This certification is contingent on meeting the action items listed in Section 10.0 of this plan. This certification shall in no way relieve the Town of Hamden Department of Public Works of its duty to prepare and fully implement a SPCC Plan in accordance with 40 CFR 112.7, as required by 40 CFR 112.3(a), (b), and (c).



GENERAL FACILITY INFORMATION

Name and Location of Facility: Town of Hamden Public Works Garage (PWG)
1125 Shepard Avenue
Hamden, Connecticut 06518

Type of Facility: Municipal Government, Public Works Garage

Telephone Number: (203) 287-7044

Normal Operating Schedule: 7:00 am to 4:30 pm Monday through Friday

Name and Address of Owner/Operator: Town of Hamden

Designated Person Responsible for Spill Prevention at the Facility: Joe Colello, Superintendent of Sanitation & Waterways
(203) 287-2600 (office)/(203) 619-4052 (cell)

Date of Initial Operation of Facility: 1970

Oil Spill History: None

Receiving Waters: Unnamed Brook which discharges to Shepard Brook

MANAGEMENT APPROVAL

The Town of Hamden PWG is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains the highest standards for spill prevention control and countermeasures through regular reviews, updating and implementation of this SPCC Plan for its facility in Hamden, Connecticut. This SPCC Plan will be implemented as herein described. By signing this document, I certify that I am thoroughly familiar with this SPCC Plan.

Signature: _____

Authorized Facility Representative: Joseph Colello

Title: Superintendent of Sanitation and Waterways

COMPLIANCE INSPECTION PLAN REVIEW PAGE

In accordance with 40 CFR 112.5(b), a review and evaluation of this SPCC Plan is conducted at least once every five years. As a result of this review and evaluation, The Town of Hamden PWG will amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of review. Any amendment to the SPCC Plan shall be certified by a Professional Engineer* (in accordance with 40 CFR 112.3(d)) within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.

REVIEW DATE	PLAN UPDATE REQUIRED (YES/NO)	DESCRIPTION OF REQUIRED REVISION	**SIGNATURE CERTIFYING TO STATEMENT BELOW	DATE OF AMENDMENT (if necessary)
10/2017	Yes	5 year review and update	<input checked="" type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	
			<input type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	
			<input type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	
			<input type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	
			<input type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	



CERTIFICATION STATEMENT

**A Professional Engineer's certification is required if (1) the site maintains oil in excess of 10,000 gallons, (2) the site has a single discharge exceeding 1,000 gallons or two discharges each exceeding 42 gallons within a twelve month period in the three years prior to the SPCC Plan self certification date, or (3) the SPCC Plan deviates from any requirements as allowed by 40 CFR 112.7(a)(2) and 112.7(d) except as provided in 40 CFR 112.6(c).*

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1.0 INTRODUCTION

The Oil Pollution Prevention Regulation in 40 CFR Part 112 was developed in order to (1) prevent oil discharges from reaching navigable waterways (defined to include, but not limited to: lakes, rivers, streams, and wetlands) and adjoining shorelines, and (2) to ensure effective response to oil discharges.

Required under this rule is the development of a Spill Prevention, Control and Countermeasure Plan (SPCC) for applicable owners, users and/or operators of facilities that could possibly discharge oil in harmful quantities into navigable waterways.

On January 14, 2010, the Environmental Protection Agency (EPA) put into effect a final rule amending the SPCC regulations. Under these rule requirements, owners or operators of facilities that “drill, produce, gather, store, use, process, refine, transfer, distribute, or consume oil and oil products” must prepare a SPCC if any of the following storage practices apply:

- Greater than 1,320 gallons of oil is stored in above-ground containers/tanks, or
- Greater than 42,000 gallons of oil is stored in underground containers/tanks provided the underground storage tank (UST) is not subject to the technical requirements of the UST regulations, 40 CFR Part 280 or 281.

The SPCC regulations established is a de minimus container size of 55 gallons. Only containers of oil (defined as “oil of any kind or in any form, including, but not limited to...petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil”) with a capacity of 55 gallons or greater are counted in the calculation of the 1,320-gallon threshold. All containers with a storage capacity of less than 55 gallons of oil are exempt from the SPCC regulations. A complete copy of the SPCC regulations is included in Appendix A.

Town of Hamden PWG is required to prepare, maintain, and follow a SPCC plan since greater than 1,320 gallons of petroleum products are stored above-ground and the discharge of oil could potentially impact the Unnamed Brook from the onsite storm drainage system.

2.0 FACILITY DESCRIPTION

2.1 Facility Operations

The Town of Hamden PWG is located at 1125 Shepard Avenue in Hamden, Connecticut (Figure 1). The facility is made up of one main building, which consists of administrative offices and a vehicle garage. A 6,000 square foot addition was made to the east side of the building in 2014. The Town of Hamden PWG maintains a sand/salt storage shed, inside and outside equipment and vehicle storage, stockpiles of construction materials (stone, etc) and a 10,000-gallon ConVault dual compartment above-ground fuel storage tank and fueling station. The facility uses/stores a variety of oil-containing products in storage containers of less than 55 gallons. Most of these containers are stored in flammable cabinets or on a containment pallet.

The Town of Hamden PWG's total above-ground oil storage volume is approximately 10,379 gallons and includes the following containers with capacities at or exceeding 55 gallons typically at any one time:

- 6,000-gallons gasoline - ConVault storage tank (vehicle fueling)
- 4,000-gallons diesel - ConVault storage tank (vehicle fueling)
- 125-gallon (approx.) mineral oil Transformer
- 254-gallon diesel Generator Reservoir

In addition approximately 27 town vehicles (payloaders, dump trucks, etc.) with fuel capacities greater than 55-gallons are located at the facility. The EPA has determined that oil-filled motor vehicle tanks or "motive power containers" used solely to fuel the propulsion of a vehicle are not governed by SPCC rules per 40 CFR 112(d)(7). Additionally, not listed above are those containers located on-site that are in storage containers of less than 55-gallons. Although these containers are exempt from the SPCC regulations, any spill or release from these sources should be managed in accordance with this Plan.

With the exception of the oil/water separator, the Town of Hamden Public Works Garage currently has no underground storage tank[s] on site. Interior floor drains tie into one 1,500 gallon oil/water separator. This oil/water separator drains to the sanitary sewer and operates per the requirements of the CT DEEP's Vehicle Maintenance General Permit. Oil/Water separators used exclusively to treat wastewater are exempt from SPCC requirements and do not count towards the facility-wide storage capacity. It is included in this Plan as a Best Management Practice.

The location of storage units subject to SPCC regulations are depicted on Figure 2, the Facility Diagram. Please note that Figures 1 and 2 have been provided at the end of the text for convenience to the reader and user of this SPCC Plan.

2.2 Drainage Pathways and Distance to Navigable Waters

The Town of Hamden PWG is registered under the *General Permit for the Discharge Associated with Industrial Activities*, effective October 1, 2011. This General Permit requires that the PWG prepare and implement a Stormwater Pollution Prevention Plan, which is maintained at the facility.

There are five regulated outfalls from this site, identified on the Site Map (Figure 2) as Outfall 001, Outfall 002, Outfall 003, Outfall 004, and Outfall 006.

The following outfall changes have occurred since the 2011 General Permit became effective:

- Outfall 005 was eliminated in 2013; the drainage swale was eliminated (resulting in ground infiltration).
- Outfall 001A has been added for a small area where surface drainage discharges to the unnamed brook which borders the site. There is no indication that this location has ever been monitored.
- Outfall 004 has been added as a regulated outfall, with the potential to receive discharge from a portion of the fueling station and trucks traffic.

Site Drainage Areas:

Outfall 001 collects stormwater from the building's roof, age, the salt storage shed, equipment storage (i.e. snow plows, screeners), a scrap metal roll-off, a vehicle loading bay, the pump out area for the 1,000-gallon oil/water separator (cleanout area),, and crushed stone and road milling storage bins. Stormwater from this drainage area is collected in one catch basin, and discharges through a concrete pipe to an unnamed brook that runs north-south along the eastern boundary of the site, discharging to the Shepard Brook.

Outfall 001A is a small area adjacent to the unnamed brook which runs adjacent to the site. A concentrated surface discharge drains to the brook. Some site equipment may be stored in this area intermittently. This location is not currently monitored.

Outfall 002 is understood to receive drainage from the Town of Hamden PWG roof only (as noted by the 2015 Town Engineer). This should be verified with the 2018 plan update. Based on this understanding (no significant pollution sources), Outfall 002 was determined not to be a sample location.

Outfall 003 receives stormwater from a catch basin east of the fueling station. The drainage area for this outfall includes the fueling station and truck storage to the southeast of the Town of Hamden PWG building. Under significant storm conditions, this outfall may also receive overflow from an on-site retention pond that is designed to collect stormwater sheet flow from the surrounding area (which is mostly gravel and may include gravel storage).

Outfall 004 is a drainage swale that receives stormwater drainage from a portion of the fueling area, and the employee parking lot.

Outfall 005 was removed in 2013 as described above.

Outfall 006 is a drainage swale that receives stormwater from the gravel lot on the northeast corner of the site. Millings and a scrap metal roll-off are stored in this drainage area. In the Fall this area is used as for temporally leaf storage (prior to DPW transfer of the leaves to the Hamden landfill).

Facility drainage, based on a visual observation of site contours, is toward the east side of the property. It is estimated, based on a review of the Mount Carmel #80 USGS 7.5 Minute Topographic Quadrangle Map that drainage from the site would flow to an unnamed tributary of Shepard Brook, located approximately 100 feet south of the site.

Note that off-site drainage enters the site (at the entrance to the facility) as run-on from Shepard Avenue.

3.0 **RESPONSIBILITIES, NOTIFICATIONS AND REPORTING**

3.1 **Responsibilities**

The duties of the SPCC Emergency Coordinator and his/her alternate are to routinely inspect all storage and handling facilities and take corrective action when conditions warrant.

In addition, the SPCC Emergency Coordinator will set up and maintain: necessary spill emergency procedures; recordkeeping; personnel training; SPCC plan reviews and amendments (if required); and reporting requirements.

In the event of an oil release, the employees of the PWG shall carry out the procedures outlined herein under the direction of the SPCC Coordinator or his/her alternate(s).

3.2 **Initial Notifications**

In the event of any emergency or occurrence related to the release or threatened release of petroleum products, the following persons shall be notified immediately:

Name	Office Phone	Home Phone	Cell Phone
Joseph Colello (SPCC Emergency Coordinator)	(203) 287-2600		(203) 619-4052
Mike Siciliano (Alternate SPCC Emergency Coordinator)	(203) 287-2600		(203) 530-9674

The Emergency Coordinator and his/her Alternate Emergency Coordinator have been chosen based on the following qualifications:

- Must be on-site or on call at all times
- Must be familiar with the facility layout
- Must know the locations and characteristics of the materials handled
- Must be familiar with all operations and activities at the facility
- Must be thoroughly familiar with emergency plans
- Must know the locations of all records
- Must have the authority to commit facility resources in the event of an emergency

The Emergency Coordinator or the designated Alternate will then notify the proper off-site authorities about the actual emergency, following their initial action at the site.

3.3 **Regulatory and Response Notifications for All Spills**

The guidelines in this section apply to all spills: petroleum products, chemicals, and/or non-hazardous and hazardous waste.

Connecticut Requirements

The Connecticut Department of Energy and Environmental Protection (CTDEEP) shall be notified immediately of any spill that poses a potential threat to human health or the environment

CTDEEP Emergency Response Unit,
Hartford (24 hours)

Phone: (860) 424-3338

Within 24 hours of the spill, The Town of Hamden PWG is required to report such facts such as:

- the location;
- the quantity and type of substance, material or waste;
- the date and the cause of the incident
- the name and address of the owner
- the name and address of the person making the report and his relationship to the owner

Note: Unless specifically requested, the CTDEEP does not require a written submission when reporting a spill. A copy of an example Spill Reporting form for internal use can be found in Appendix C.

Spills Threatening to Reach Navigable Waters

In the event that a spill of oil in any amount (or enough to cause sheen) threatens to reach navigable waters, the National Response Center in Washington as well as local authorities shall be notified immediately:

Authorities	Phone Numbers
National Response Center (NRC)	(800) 424-8802
EPA Region I	(617) 424-8802
CT DEEP	(860) 424-3338

With any of the above notifications, Town of Hamden PWG personnel will be ready to report the following information immediately following the discovery of the event:

- Your name, location, organization, and telephone number;
- Name and address of the party responsible for the incident;
- Date and time of the incident;
- Location of the incident;
- Source and cause of the release or spill;
- Types of material(s) released or spilled;
- Quantity of materials released or spilled;
- Danger or threat posed by the release or spill;
- Number and types of injuries (if any);
- Weather conditions at the incident location;
- Any other information that may help emergency personnel respond to the incident.

Navigable waters of United States are defined in 40 CFR Part 110.1 to include interstate waterways or intrastate waterways including lakes, rivers and streams which may be utilized by interstate travelers for recreational purposes. *Navigable waters* also include lakes, rivers and streams from which fish or shellfish are taken. The complete definition may be found in Section 502(7) of the Federal Water Pollution Control Act. "Navigable waters" for the purpose of the Town of Hamden PWG's response plan includes a spill that may enter the storm drainage system and/or may reach the unnamed brook.

Spills Threatening Human Health or the Sewer

In the event the Emergency Coordinator or designated alternate determines that the release of materials threatens human health outside the facility and evacuation may be necessary, he/she will also report his findings to the local authorities:

Authority	Phone Numbers
CTDEEP Emergency Response	(860) 424-3338
Town of Hamden Police Department	911 or (203) 230-4000
Town of Hamden Fire Department	911 or (203) 407-5880
Hospital of Saint Raphael	(203) 789-3000

If the spill has discharged down the drain to local sewer authority, immediately contact:

Authority	Phone Numbers
Greater New Haven Water Pollution Control Authority	203-466-5260

Commercial Clean-Up Contractors

Should a spill contractor be needed, the PWG will contact one of the following contractors:

Contractor	Phone Numbers
Connecticut Tank Removal, Inc.	(203) 384-6020
United Industrial Services	(203) 235-3753

The PWG should contact the above contractor and invite a representative to visit the facility in order to become familiarized with the site. This will enable the contractor to promptly dispatch a well-equipped spill response team to the facility in the event of a spill.



3.4 Federal Reporting

After a spill or release of greater than 1,000 gallons or after two spills of greater than 42 gallons within any twelve-month period, or if the spill impacted a navigable waterway, the Emergency Coordinator will report the event(s) to the following agency within 60 days.

The Regional Administrator
U.S. Environmental Protection Agency – Region I
5 Post Office Square – Suite 100
Boston, Massachusetts 02109-3912
Phone: (617) 918-1010

The EPA report will include:

- Name of the facility;
- Your name;
- Location of the facility;
- 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 replacement;
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- The cause of the discharge, 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 spill event.

As required by EPA Federal Regulation 40 CFR 112.4(c), a copy of the EPA report will also be submitted to the CTDEEP Emergency Response Section at the following address:

The Connecticut Department of Energy and Environmental Protection
Hazardous Materials Management Unit
Oil and Chemicals Spills Section
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3338

If 1,000 gallons or more of material is spilled to a navigable waterway, or there are two or more reportable spills (to the National Response Center) in a year, the EPA may conduct an inspection of the site and review this Plan. Following the inspection and review, the EPA may require facility modifications and/or operational changes to minimize the possibility of future spills.

3.5 State Reporting

If the Town of Hamden PWG staff has determined that a reportable spill or release of petroleum products (or other virgin or waste chemicals) has occurred, the Emergency Coordinator must contact the CTDEEP within twenty-four (24) hours of the event to the following agency:

Connecticut DEEP
Emergency Response Unit,
Hartford (24 Hours)

Phone: (860) 424-3338

For all spills reported to the CTDEEP, the Town of Hamden PWG will submit written information in the form of a letter describing the details of the discharge or spill and supporting the adequacy of the response action within 30 days of the discovery of the reportable discharge or spill.

The documentation shall contain one of the following items:

- A statement that the discharge or spill response action has been completed and a description of how the response action was conducted. The statement shall include the initial report information outlined in Section 3.3 of this plan;
- A request for an extension of time to complete the response action, along with the reasons for the request. The request shall also include a projected work schedule outlining the time required to complete the response action. The executive director may grant an extension up to six months from the date the spill or discharge was reported. Unless otherwise notified by the appropriate regional manager or the Emergency Response Team, the Town of Hamden PWG personnel shall proceed according to the terms of the projected work schedule; or
- A statement that the discharge or spill response action has not been completed nor is it expected to be completed within the maximum allowable six month extension. The statement shall explain why completion of the response action is not feasible and include a projected work schedule outlining the remaining tasks to complete the response action. This report will be mailed to:

The Connecticut Department of Energy and Environmental Protection
Hazardous Materials Management Unit
Oil and Chemicals Spills Section
79 Elm Street
Hartford, Connecticut 06106-5127

4.0 **EMERGENCY PROCEDURES**

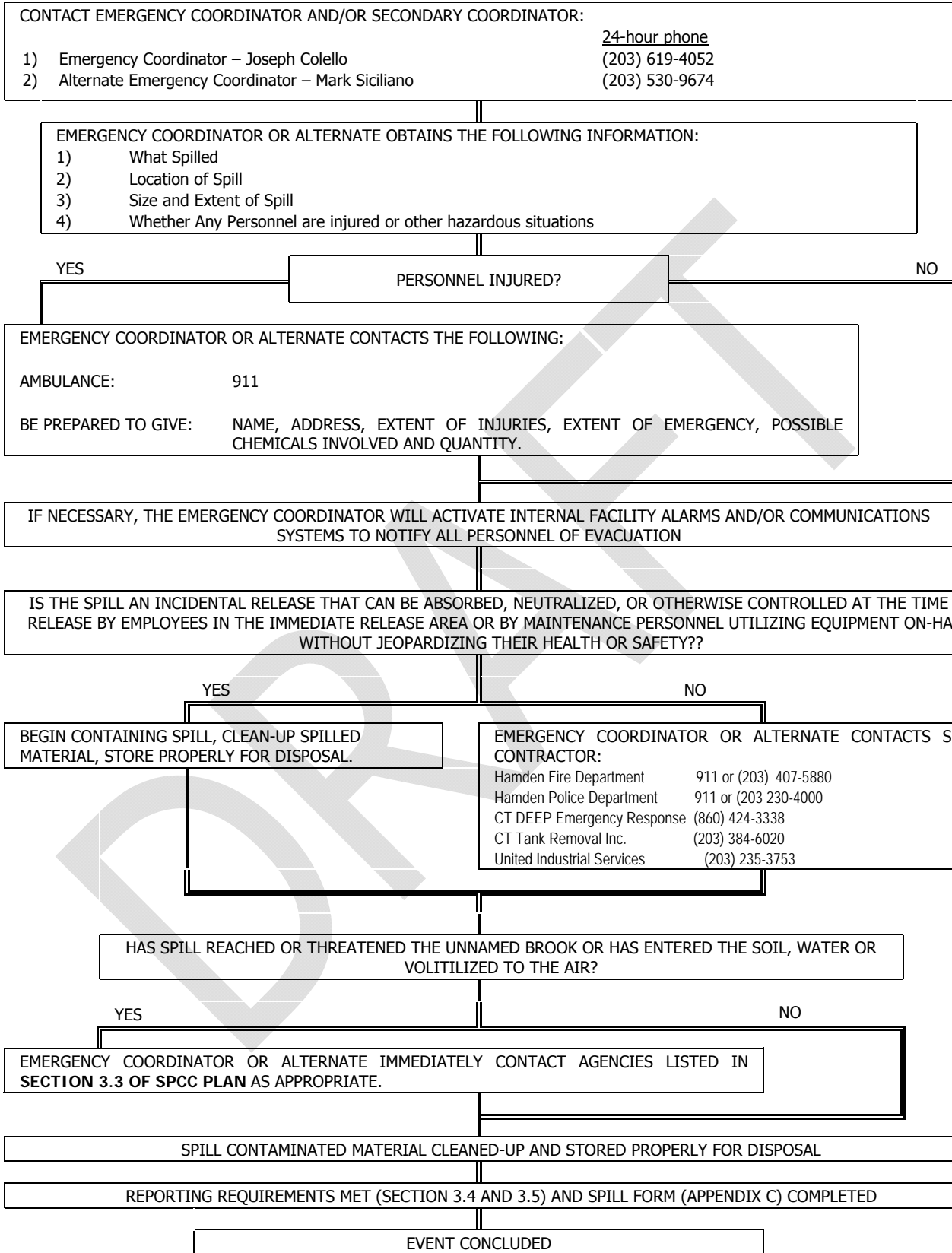
In the event of a spill or release, the emergency procedures outlined in the Emergency Procedures flow chart provided on the following page will be followed. A copy of the emergency procedure flow chart will be in or near the Primary Emergency Coordinator's office, as well as all of the alternates. If any employee discovers a spill or release, it will immediately be reported to the Emergency Coordinator. If the Emergency Coordinator or alternate determines that the spill or release cannot be handled by on-site personnel and/or may be a threat to either health or the environment, the listed professional spill response contractor (previously listed in Section 3.3) will be contacted.

The Emergency Coordinator or Alternate is responsible for determining when a spill event has concluded or is under control sufficiently such that normal activities and personnel presence may be safely resumed.

Only if the spill or release can be safely handled by on-site personnel, the following actions may be conducted:

- While awaiting arrival of the Emergency Coordinator or designated Alternates, personnel shall commence containment activities immediately, if safe to do so, using spill response materials available on site. Containment activities may include up righting a spilled container, closing a valve, protecting a drain, or using spill response material to berm a spilled area.
- Following spill containment, trained personnel may begin absorbing the spilled material with absorbent material provided in the site spill kits.
- Used absorbent material will be collected and containerized for off-site disposal in containers such as 55-gallon drums. All equipment and manpower shall be utilized to remove spilled materials promptly and in a safe manner. All drums used to contain spilled waste will be transported to the waste storage area for eventual off-site disposal by a licensed transporter.

SPILL AND/OR RELEASE FLOWCHART



5.0 **PAST SPILL EXPERIENCE**

In order to prepare a more complete and accurate plan, significant spills or releases, corrective action taken, and plans for preventing a recurrence have been taken into consideration.

In preparing this plan, no spills having occurred within the past five years were identified.

Any future spills will be documented using the Spill Form in Appendix C.

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6.0 **POTENTIAL SPILL PREDICTION**

6.1 **Oil Capacity and Storage**

The Town of Hamden PWG was inspected for the presence of oil-filled equipment and bulk storage containers on-site. It was determined that all petroleum products are stored and managed in aboveground storage containers. Tables 1 and 2 summarize the oil capacities, containment and control practices identified at the Town of Hamden PWG. At any one time, a total of approximately 10,125 gallons of oil are stored at the facility aboveground. Tables 1 and 2 also describes the potential type of failure(s), the estimated amount of material which may be released, the probable flow direction of a spill should one occur and existing secondary containment facilities in each area of concern.

Oil Filled Equipment

While oil-filled equipment is not subject to the bulk storage container requirements, it must still meet the requirements for general secondary containment. General secondary containment may include:

- i. Dikes, berms, or retaining walls sufficiently impervious to contain oil;
- ii. Curbing;
- iii. Culverting, gutters, or other drainage systems;
- iv. Weirs, booms, or other barriers;
- v. Spill diversion ponds;
- vi. Retention ponds; or
- vii. Sorbent materials

Oil Filled Operational Equipment

Oil-filled operational equipment includes any oil storage container in which the oil is present solely to support the function of the apparatus or the device. The following oil/filled operational equipment with oil reservoirs equal to or greater than 55-gallons are located on-site; the mobile generator and the pad-mounted transformer. In addition, an oil water separator is located outside below grade and vehicles and trucks are stored primarily inside the garage.

Table 1 is a description of existing and recommended measures for the avoidance and/or containment of the release of materials from the facility associated with oil-filled operational equipment. Specific facility recommendations are presented in Section 12.0 of this report. All oil reservoirs listed in Table 1 are compatible with the oil stored within.

**TABLE 1 – OIL-FILLED OPERATION EQUIPMENT OIL STORAGE
STORAGE, POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY**

Town of Hamden Public Works Garage
1125 Shepard Avenue
Hamden, Connecticut

Area/Source	Total Volume (gallons)/ Oil Type	Potential Type of Failure	Potential Spill Volume (gallons)	Flow Direction & Distance to Closest Stormwater Drain*	Secondary Containment
<i>OIL-FILLED EQUIPMENT</i>					
Transformer (non-PB mineral oil) – north side of building	125 (approx.)	Electrical Transformer Failure (Tank Rupture)	125	Onto concrete pad, then into surrounding gravel and grass. Nearest CB over 100 feet away	A
Mobile Generator	254	Tank Rupture	254	Spill would be expected to be contained by nearby spill containment supplies. Equipment stored inside building when on-site	A
		Spills during filling	25.4		

*Spill volumes represented would flow depending on degree of reservoir damage (pinhole leak vs. catastrophic failure). For the purposes of this SPCC Plan, worst-case scenario assumes that represented volumes would flow directly to the closest storm water drain or water body.

Secondary Containment Legend

- A To be contained by Speedi-Dry or other absorbent material.
- B Spill contained by impervious nature of building's floor and/or walls.
- C¹ Sized secondary containment via double-walled construction.
- C² Sized secondary containment via constructed berm
- C³ Secondary containment pallet, pan, or appropriately sized containment tank.
- D Spill contained by building's floor and walls and concrete sump.
- E Fuel tank is drained before being stored outdoors for any period of time.
- F Inadequate containment, see Section 12.0 for recommendations and implementation schedule.

Oil Filled Manufacturing Equipment

Oil filled manufacturing equipment stores oil only as an ancillary element of performing a mechanical or chemical operation to create or modify an intermediate or finished product.

Bulk Fuel Storage

Bulk fuel storage refers to any container (≥55 gallons capacity) used to store oil other than oil filled electrical, operating, or manufacturing equipment. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. These containers are subject to the more laborious bulk storage



container requirements of 40 CFR 112.8 and 40 CFR 112.12 which include but are not limited to sized secondary containment, integrity testing, facility and dike drainage, and discharge avoidance.

Table 2 is a description of measures for the avoidance and/or containment of the release of materials from the facility associated with bulk fuel storage. All containers listed in Table 2 are compatible with the oil stored within.

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**TABLE 2 – BULK FUEL STORAGE
 POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY**

Town of Hamden Public Works Garage
 1125 Shepard Avenue
 Hamden, Connecticut

Area/Source	Total Volume (gallons)/ Oil Type	Potential Type of Failure	Potential Spill Volume (gallons)	Flow Direction and distance to closest storm water drain/water body*	Overflow Protection/Discharge Avoidance
ABOVE-GROUND STORAGE TANKS					
Above-ground ConVault double-walled storage tank and fill port spill containment	6,000 gallons Diesel	Tank failure	6,000	Double walled tank (on concrete pad) -75 ft to nearest CB to the east	Equipped with emergency shut-off valves and spill and overfill protection. Tank filling operations overseen by Public Works Garage personnel. See Section 5.3.1
		Spill during transfer	600		
Above-ground ConVault double-walled storage tank and fill port spill containment	4,000 gallon Gasoline	Tank failure	4,000	Double walled tank (on concrete pad) -75 ft to nearest CB to the east	Equipped with emergency shut-off valves and spill and overfill protection. Tank filling operations overseen by Town of Hamden Public Works Garage personnel. See Section 5.3.1
		Spill during transfer	400		

* Spill volumes represented would flow depending on degree of reservoir damage (pinhole leak vs. catastrophic failure).

Secondary Containment Legend

- A To be contained by spill kit absorbent materials.
- B Spill contained by impervious nature of building's floor and walls
- C¹ Sized Secondary containment via double-walled construction
- C² Sized Secondary containment via constructed berm
- C³ Sized Secondary containment via spill pallet
- D Electronic Monitoring System
- E Inadequate containment, see Section 13.0 for implementation schedule

6.2 Containment and Control Measures

Equipment/Vehicles

Approximately twenty-seven mobile vehicles are stored on the premises of the Town of Hamden PWG. These vehicles are primarily stored inside the facility's garage. The EPA has determined that oil-filled motor vehicle tanks or "motive power containers" used solely to fuel the propulsion of a vehicle are not governed by SPCC rules per 40 CFR 112(d)(7). Although these vehicles are exempt from the SPCC regulations, any spill or release from these sources should be managed in accordance with this Plan. Vehicles currently stored outside should be moved inside or removed from the site.

In addition to the vehicles, a diesel generator trailer with a fuel capacity of approximately 254 gallons is also stored inside the garage. Spill absorbent materials are stored within the garage and could be used to contain potential spills from the vehicles or generator. The PWG shall develop a Standard Operating Procedure (SOP) for active containment for the generator. The SOP shall include, at a minimum; not to store the generator near the trench drain, ensure spill containment supplies located nearby, and use of drip pans and/or booms if any leaks noted. This SOP should be posted near the generator storage location inside the facility.

There is one 1500-gallon oil/water separator, operated and monitored by the Town of Hamden PWG personnel, which is located north of the building that collects vehicle washwater and discharges to the sanitary sewer. This discharge is permitted under a CTDEEP Vehicle Service General Permit. The separator is double walled and was installed in 2014.

10,000-gallon ConVault Dual Compartment AST and Fueling Station

The dual aboveground storage tank and fueling station is located about 50 feet south of the main building and was installed in 2012. The tank and fueling station is located on top of a concrete pad and contains canopied shelter. Tanker trucks fill the diesel and gasoline tanks via the fill located on each side of the double walled dual compartment tank. The diesel and gasoline fueling station is available to the Town of Hamden vehicles (i.e. public works, fire trucks, police cars).

The 10,000 gallon AST is double-walled and equipped with emergency shut off valves and spill/overflow protection. The Town of Hamden PWG employees oversee all oil transfers. In the case of a spill, there are spill control kits adjacent to the pump island. Town of Hamden PWG personnel routinely inspect the area to ensure no leaks are occurring.

Electrical Transformers

One pad-mounted transformer is located on-site with dielectric fluid capacities at or exceeding 55-gallons. Being an oil filled operational equipment as outlined in Section 6.1, preventive methods implemented for transformers will include having sorbent material readily available as outlined in Section 7.0 and conducting periodic inspections as outlined in Section 7.1.

6.3 General Practices

6.3.2 Oil Transfer Procedures

Loading and Unloading

Diesel and gasoline is delivered (i.e. "loaded") to the AST via a tanker truck. Approximately once a year, accumulated oil is pumped from the on-site 1,500-gallon concrete oil/water separator by vacuum tanker trucks for off-site disposal.

In accordance with 40 CFR Part 112.7 (c), procedures utilized by the facility to prevent or control an oil spill in transfer areas include:

Before the Loading/Unloading Begins

- The vendor chocks the wheels of the delivery truck and visually checks all hoses for leaks and wet spots;
- Facility personnel ensure that all applicable drainage valves are locked in the closed position and check the tank for any signs of a leak;
- Facility personnel will ensure that internal and external valves on the receiving tank are open along with the pressure relief valves.
- Facility personnel will confirm the type of oil and the quantity of which will be transferred;
- Facility personnel will visually confirm the ability of the tank to accept the agreed upon quantity;
- Facility personnel will ensure spill control equipment is readily available, place pigs/socks/berms in appropriate locations to contain a small spill from the truck, and place a spill mat over nearby stormwater catch basins.

Loading/Unloading Process

- Facility personnel and the vendor will remain at the tank/transfer area for the entire transfer process;
- The vendor will shut off the delivery truck engine prior to making connections. Do not restart the engine during the loading/unloading process unless the truck engine is used to operate a pump;
- The vendor will ensure all valves are in proper positions and begin the transfer;
- The vendor will monitor the flow meters to determine the rate of flow;
- Facility personnel will monitor the tank volume to prevent overflow; and
- Facility personnel and vendor will periodically inspect all systems hoses and connections.

After the Loading/Unloading Process

- Facility personnel will visually check the volume delivered;
- The vendor will ensure all valves are in proper positions and disconnect the hose;
- Facility personnel and vendor will check the transfer area for any signs of a spill;
- Facility personnel will return the spill control equipment to its storage location; and
- The vendor will prepare to depart.

A delivery and pump/out log should be used to ensure supervision of the entire unloading operation and minimize any releases. The following information should be recorded on the logs:

- Date and time of delivery (start, end);
- Quantity in tank;
- Quantity delivered;
- Inspection comments; and
- Employee present.

Mobile on-site vehicle fueling "*wet-hosing*" operations are not specifically exempt from the secondary containment requirements of the 40 CFR Part 112.7(c), and therefore are subject to the facility oil transfer procedures discussed above. Mobile on-site vehicle fueling does not occur at this facility.

Drum Handling

The facility does not receive or ship oil in drums, but in the event this situation changes, in accordance with 40 CFR Part 112.7 (c), procedures utilized by the facility to prevent or control an oil spill during waste oil drum transfer operations include:

- The vendor chocks the wheels of the waste hauler truck;
- Facility personnel and the vendor ensure that the drums are in good condition and there are no signs of drips, leaks or spills prior to loading into the truck;
- Facility personnel will confirm the quantity of drums which will be transferred; and
- Facility personnel will ensure spill control equipment is readily available.
- Facility personnel and the vendor will be present for the entire transfer process;
- Facility personnel and the vendor will ensure no damage has been done to the drums and there are no signs of leaks or spills;
- The vendor will prepare to depart.

Fuel Dispensing

The PWG dispenses diesel and gasoline at the fueling station. The SPCC regulations state that the starter control on each dispensing pump must be locked in the "off" position and located at a site accessible only to authorized personnel when the pump is in a non-operating non-standby status. However, the pumps are used by Authorized Town Personnel 24 hours per day, seven days a week, and therefore, always in "operation". The Town of Hamden PWG ensures that access to the diesel and gasoline pumps is restricted from unauthorized personnel by locking the chain-link fence at the main entrance during PWG non-operating hours. The pumps are controlled by a *Fuel Master System* which requires a Town of Hamden ID badge to dispense fuel from the pumps.

At a minimum, the following procedures should be followed during delivery:

- During transfer of the petroleum product, the **truck's tires should be chocked**.
- Before and after delivery, **all valves and drains on the truck should be inspected** to ensure none are leaking.
- Town employees shall remain with the vehicle at all times.

6.3.2 Dike Drainage

The facility does not maintain any diked ASTs which are subject to storm water collection and drainage, however if the facility maintains any diked areas requiring drainage in the future, the outlined procedure below will be used.

- Trained Town of Hamden PWG personnel should conduct visually inspection of the contained rainwater for evidence of an oily sheen or film, color, sludge or deposits.
- If there is any evidence of an oily sheen or film, discoloration, or oily sludge or deposits, PWG personnel will NOT drain the accumulated liquid to the ground but will contact an outside contractor to vacuum the contained fuel/oil/water mixture and dispose in accordance with the resulting waste stream determination.

If the containment area is drained to the ground, Town of Hamden PWG personnel will monitor the entire draining event (i.e. not leave that dike or containment area while the dike is being drained). Additionally, all drain lines will be securely closed and locked after the event.

The draining log, available in Appendix D, should be utilized to record any future dike draining operations at the facility.

6.3.3 Recovered Clean-up Material Disposal

- The Town of Hamden PWG staff typically would use absorbent pads, absorbent socks, and granular loose absorbent material to contain any minor spills or releases.
- Waste Absorbent material will be cleaned-up and disposed of using the following procedure:
- Contain the clean-up material into a dedicated storage container as soon as a spill is absorbed, but no later than the end of the day in which the spill occurred.
- The dedicated drum will be labeled with the words "Oil Absorbent Material" or other words as appropriate.
- Conduct a hazardous waste determination to determine if material is hazardous or non-hazardous waste.
- The used clean-up material will then be disposed of properly based on the outcome of the hazardous waste determination.
- Shipping records for used materials that is transported off-site will be maintained in the PWG's files.

6.3.4 Vehicle Traffic

Vehicle traffic is not a significant oil spill incident risk potential at the Town of Hamden PWG. There is no outdoor above-ground piping, and the fueling AST on-site is located in an area provided with sufficient barriers to traffic (on a concrete pad, under a roof, surrounded by bollards). The transformer is also situated on a concrete pad behind concrete barriers. In addition, the vehicle area west of the Building is sufficiently wide to allow vehicles to pass.

6.3.5 Drum and Container Handling

In the event the facility has drums located on-site, the following precautions will be taken during drum handling operations, and the SPCC plan will be updated as necessary.

- Keep the drum or container closed at all times, except when adding or removing oil; and
- Use appropriate transport devices such as a dolly or a specifically designed handcart
- When transporting by forklift, ensure drum(s) is secured to the pallet.

7.0 **INSPECTIONS**

7.1 **Visual Inspections**

On a monthly basis, Town of Hamden PWG personnel will inspect its oil storage areas. A written record of the inspections will be kept. An SPCC Inspection Log (Appendix D), will be completed and signed by the inspector as part of each monthly inspection.

At a minimum, Town of Hamden PWG personnel will inspect all tanks for deterioration (e.g. corrosion), leaks, tank supports and foundations, and condition of secondary containment, where applicable. In addition to the tank, the associated above-ground piping will be inspected for damage, including the condition of the piping system including all valves, flanges, etc. Containers and drums will be checked for proper labeling and signs of deterioration or leakage. Any sign of rust, corrosion, or leakage constitutes an unsatisfactory condition requiring appropriate preventive maintenance. Any container or drum label deficiencies will be corrected immediately. The containment areas will also be inspected for cracks or other forms of deterioration.

Town of Hamden PWG personnel will also verify the adequate supply of spill containment and abatement materials. See Section 8.0 for a detailed list of spill abatement equipment and materials that will be maintained on-site.

All inspection logs will be made a part of the SPCC and maintained on-site for at least three (3) years. Any problems will be reported to the Emergency Coordinator and corrected as soon as possible.

7.2 **Integrity Testing**

Each container with a capacity of 55 gallons or greater (e.g. 55-gallon drum, tank, etc.), which is not an oil-filled electrical, operating, or manufacturing equipment, is considered to be a bulk storage container and is therefore regulated under 40 CFR 112.8(c)(6). Each above ground bulk storage container will be tested for integrity on a regular schedule and when material repairs are made.

STI provides industry standards regarding integrity testing guidance for shop-built tanks and portable containers. The guidance categorizes ASTs from 1-3 based on a spill or release risk level, with 1 being the lowest risk and 3 being the highest risk for a spill or release. For instance, a double-walled, shop-built tank in contact with the ground that maintains a Continuous Release Detection Method (CRDM) and is less than 5,000 gallons is considered a Category 1 tank. Category 1 tanks are recommended by STI to have periodic inspections conducted by the owner or designated employee.

The integrity testing requirement does not apply to oil-filled electrical operating and manufacturing equipment, 55-gallon drums which are not reused on-site, and portable totes which are not reused or USTs subject to 40 CFR 280. Re-use of portable containers is subject to STI SP001 standards. For 55-gallon drums it is more practical to replace the drums than to conduct any type of integrity testing beyond visual inspection. Any sign of compromised integrity visually observed should be remedied by replacing the questionable drum. Currently, the PWG does not store oil in drums or totes.

The regulations allow deviations from this requirement where “you provide equivalent environmental protection by some means of spill prevention, control, or countermeasure” 40 CFR Part 112.7(a)(2). The life expectancy of a typical shop built bulk storage container is approximately twenty years, after which it is past its nominal useful life. Although a rigorous testing program could justify leaving tanks past their life expectancy in-place, the cost of such testing is likely to be more than the expense of replacing the tank.

ConVault® tanks are unique among above-ground tanks in that they are double walled, equipped with a polyethylene liner within the interstitial space and have a 4-6” concrete encasement that forms the secondary containment double wall. In addition, the interstitial space is equipped with a leak detection system that would indicate any failure of the primary inner steel tank. The concrete encasement is resistant to ballistic and vehicle impact as well as fire. All of these features provide environmental protection equivalent to the integrity testing techniques listed in 40 CFR 112.8(c)(6). This structure was installed in 2012 and does not need to be considered for formal external integrity testing until 2032. However, inspections will be performed on a monthly and annual basis.

Based on the above criteria, the facility will perform integrity testing on the following bulk storage tanks as outlined below:

**TABLE 3
INTEGRITY TESTING
STEEL TANK INSTITUTE AST CATEGORIES**

Location	Description	Installation Date	AST Steel Tank Institute Category ¹	Integrity Testing Implementation
South side of building	6,000-gallon diesel dual compartment ConVault AST	2012	1	Visual monthly and annual inspection by facility personnel (as per checklist in Appendix D)* Formal external inspection every 20 years by a certified inspector
South side of building	4,000-gallon gasoline dual compartment ConVault AST	2012	1	Visual monthly and annual inspection by facility personnel (as per checklist in Appendix D)*
<u>STI Category Explanation¹</u>				
1 Secondary Containment and Continuous Release Detection Method (CRDM)				
2 Secondary Containment				
3 No secondary containment or Release Prevention Barrier (RPB), or one or the other				

*In addition, ConVault requires some items be checked on a weekly basis as part of the ConVault warranty. See Appendix I for ConVault specific maintenance checklists.

The routine integrity testing procedure will consist of monthly and annual visual inspection by designated facility personnel. Visual inspections consist of evaluating each of the above listed tanks and drum storage areas in accordance with the Inspection Logs, provided in **Appendix D**. Observations are to be recorded on the Inspection Logs during the time of visual inspection, and a record of the logs made a part of this SPCC Plan. The 6,000-gallon AST will require formal inspection by a certified inspector every 20 years.

¹ STI explanations described in SP001 5th Edition – Standard for the Inspection of Aboveground Storage Tanks by the Steel Tank Institute

8.0 SPILL ABATEMENT EQUIPMENT AND MATERIALS

The Town of Hamden PWG must maintain spill control equipment at or near all of the oil storage areas on-site. Spill control equipment should be stored in locations, which are accessible to all employees. Town of Hamden PWG personnel should inspect the spill control equipment periodically to ensure that they are maintained in working order and spill abatement materials are replenished as needed. The following materials at a minimum must be provided:

- absorbent material (i.e. Speedi-Dry, pads, and booms)
- shovel/broom
- "Attack Pack" Spill Kit hanging from ConVault AST
- temporary disposal bag or drum

Spill mats should be obtained and used to cover nearby catchbasins during fuel deliveries. Spill control equipment will be stored in locations which are accessible to all employees and located near oil storage locations. Town of Hamden Town of Hamden PWG personnel will inspect the spill control equipment periodically to ensure that they are maintained in working order and spill abatement materials are replenished as needed.

The commercial clean-up contractor who could be contacted by the Town of Hamden PWG if their assistance is needed is as follows:

Firm	Phone Number
Connecticut Tank Removal, Inc	(203) 384-6020
United Industrial Services	(203) 235-3753

9.0 SECURITY

The Town of Hamden PWG will maintain the following security measures in place at the facility:

1. Access to the Town of Hamden PWG is limited to a gated access at the entrance to the facility. All vehicles enter and exit through this access point. The facility hours are 7:00am-4:30pm, Monday through Friday. The gate is maintained locked at all other times.
2. Due to this facility being a town occupied facility, town officials (i.e. fire department, board of education) have a key to unlock the fence and to fill up the town vehicles at any time. A town ID badge is required to dispense fuel from the diesel and gasoline fueling station. The AST is encased in 6" thick reinforced concrete to provide protection from fire, ballistics, and vehicle impacts. Bollards are located near the AST to protect the tank from vehicular traffic.
3. Motion sensors lighting is mounted on the exterior walls of the building. Lights are also installed on the canopy above the AST tank to allow sufficient lighting during hours of darkness for Town of Hamden personnel fueling vehicles at after-hours. The lighting at the facility is adequate to assist in the prevention of discharges due to acts of vandalism.

10.0 TRAINING

EPA Regulation 40 CFR Part 112.7(f) requires that annual training be provided for all “oil handling” personnel to assure an understanding of the SPCC Plan. Personnel at Town of Hamden PWG whose duties involve the daily management, use, inspection or maintenance of oil storage, transfer, process or treatment equipment will be trained in the contents of this SPCC Plan. This training will highlight those portions of the SPCC as they relate to facility operations, including, but not limited to, known discharges or failures, malfunctioning components, and recently developed precautionary measures. The training will include the following:

- Operation and Maintenance of equipment to prevent the discharge of oil;
- Discharge procedure protocols;
- Applicable pollution control laws, rules and regulations;
- General facility operations;
- Contents of the facility SPCC plan; and
- Review of any spills or releases in the last year.

All current and new hires of “oil handling” personnel shall be trained by Town of Hamden PWG staff prior to beginning work. This training includes a detailed and complete review of PWG’s SPCC Plan and its standard operating procedures. Annual refreshers of this training will be given to all facility employees. Sign-in sheets (example in Appendix F) for each training session may be maintained in Appendix H of this SPCC.

The Emergency Coordinator, also the Designated Person Responsible for spill prevention at the facility (page ii), will approve the SPCC and certify that he/she is thoroughly familiar with the Plan. As such, the Emergency Coordinator is qualified to conduct training of oil handling personnel or may opt to designate to another qualified individual thoroughly familiar with this plan to conduct such training.

11.0 **FACILITY RESPONSE PLAN**

The Town of Hamden PWG is not required to prepare and submit a Facility Response Plan defined under 40 CFR Part 112.20 for the following reasons:

- This facility does not transfer oil over water to or from vessels with a total oil facility storage capacity greater than or equal to 42,000 gallons.
- The facility does not have a total oil storage capacity greater than or equal to 1,000,000 gallons.

Since the PWG does not meet the substantial harm criteria, the facility must only complete a Certification of Harm Determination Form and maintain the form as part of their SPCC Plan. The Certification form, to be completed, is included in Appendix E.

12.0 SPCC PLAN AMENDMENT

12.1 Facility Modifications

This SPCC Plan, under 40 CFR 112.5, will be amended whenever there is a change in facility design, construction, operation or maintenance which material affects the facility's potential for a discharge of oil to navigable waters of the United States or adjoining shorelines. These plan amendments will be prepared within six (6) months and fully implemented as soon as possible, but not later than six (6) months following the plan's amendment. Emergency response issues will be reviewed when:

- The plan fails during an emergency;
- It becomes evident that emergency contacts are not equipped to handle situations; or
- There are personnel changes (i.e. emergency coordinator or alternate).

12.2 US EPA Requirements

The Environmental Protection Agency Regional Administrator may require amendments to the Plan whenever the facility has: 1) discharged more than 1,000 U.S. gallons into or upon the navigable waters in the U.S.; 2) discharged oil in quantities larger than 42 gallons, as defined in 40 CFR Part 112.1(b), into or upon the navigable waters of the U.S. in two spill events, occurring within any twelve month period.

12.3 5-Year Revisions

Regardless of facility changes, the SPCC Plan will also undergo a complete review and evaluation at least once every five (5) years. As a result of this review, the plan will be updated within six (6) months to include more effective prevention and control technology, if such technology is identified as having the ability to significantly reduce the likelihood of spills, and has been field proven at the time of the review. All technical amendments to this plan shall be certified by a Professional Engineer in accordance with 40 CFR 112.3(d). Non-technical amendments include changes to phone numbers or names. These amendments will be made as the change occurs, initialed, and dated by the PWG personnel.

All 5-year SPCC plan reviews will be documented at their completion in the SPCC Plan Review Log on page iii at the beginning of this plan. The person responsible for the 5-year review will attest to the certification statement with their signature, include the date of the review and indicate whether a revision to the plan is necessary, as well as date of the revision, if applicable.

13.0 IMPLEMENTATION SCHEDULE

The Town of Hamden PWG will fully implement this SPCC Plan and be compliant with the SPCC regulations by following the recommendations & implementation schedule presented below. HRP Associates, Inc. recommends the following in order to the PWG to fully implement the SPCC Plan and be compliant with SPCC regulations. The PWG will complete the far right column at the time that each item is implemented. Failure to implement these actions may negate the PE signature associated with this SPCC Plan.

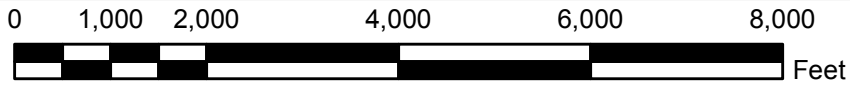
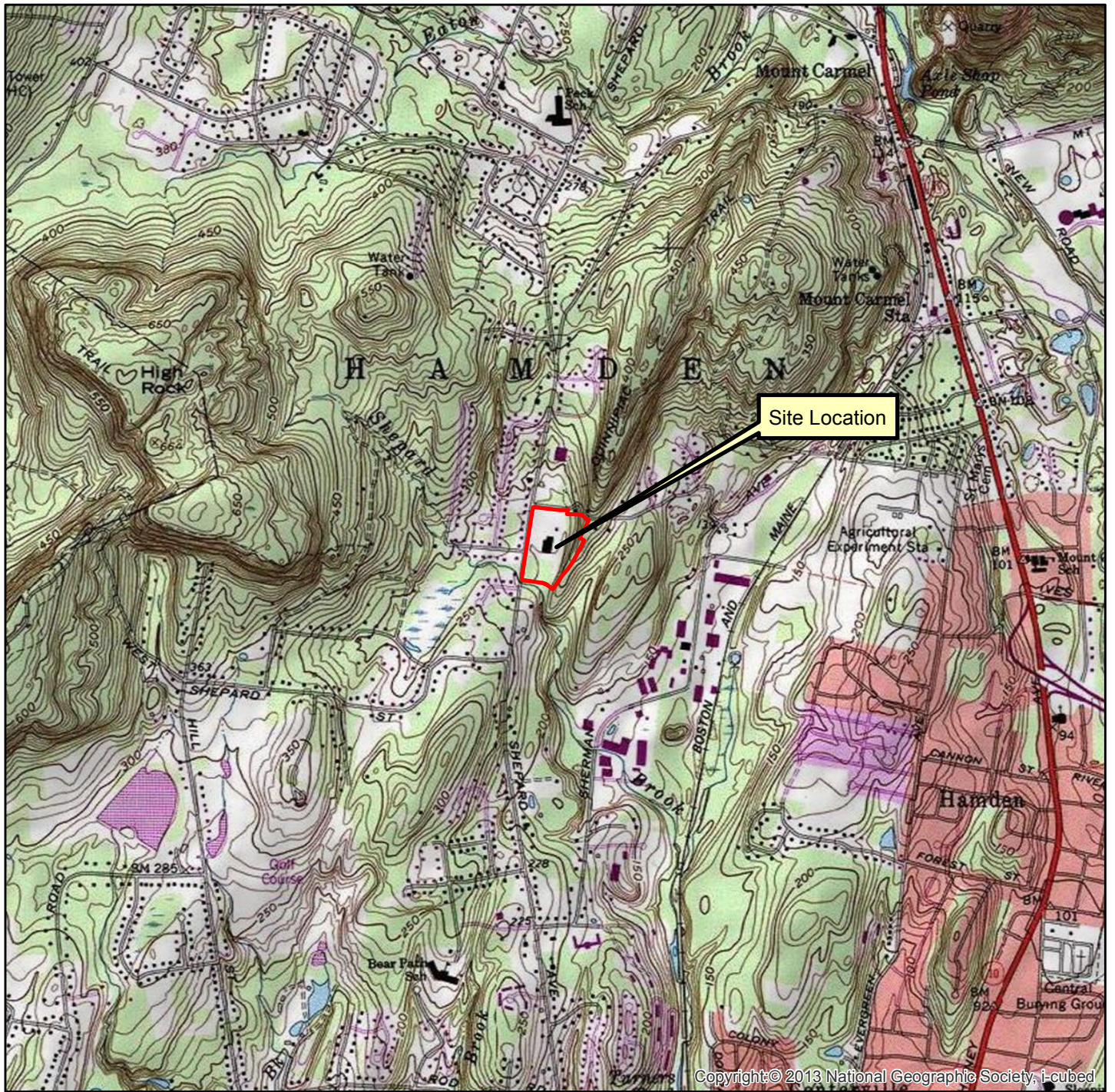
Action Item Number	Action Item	Corresponding Section in SPCC Plan	Proposed Implementation Date	Actual Implementation Date and Signature
1	Post the spill response flow chart in the office of the primary emergency coordinator and alternate	4.0	Initially and update as necessary	
2	Ensure Fuel Master Computer system working correctly	6.3.1	September 2018	
3	Provide a barrel of speedy-dry readily accessible in vicinity of ConVault AST	8.0	September 2018	
4	Place a spill kit inside interior bay door on southern side of building near trucks requiring maintenance, and near mobile generator	8.0	September 2018	
5	Maintain spill response material on site in appropriate locations	8.0	On going	
6	Continue to remove unused/impaired vehicles and equipment from the property, and/or move into the building.	6.2.1	On going	
7	Ensure appropriate employees are familiar with and following oil transfer procedures, including covering storm drains during transfers to the ASTs	6.3.1	With each transfer event	
8	Conduct monthly inspections	7.1, Appendix D	Ongoing	
9	Initiate integrity testing schedule	7.2 and Appendix D	Ongoing	
10	Provide SPCC initial training to all employees who handle oil or chemicals, and provide ongoing annual training.	10.0	Upon certification of SPCC and annually thereafter	
11	Amend the Plan within 6 months within changes to facility design, construction, operation, or maintenance that affect the potential for oil discharge to a navigable waterway.	12.1	As needed	
12	Remove accumulated oil from buckets under leaking vehicles	6	September 2018	
13	Perform a complete review and evaluation of the SPCC Plan at least once every five years.	12.3	September 2022	

Action Item Number	Action Item	Corresponding Section in SPCC Plan	Proposed Implementation Date	Actual Implementation Date and Signature
14	Address the leak from the piping on top of the ConVault tank		September 2018	
15	Develop and post SOP regarding generator storage inside facility	6.2	September 2018	

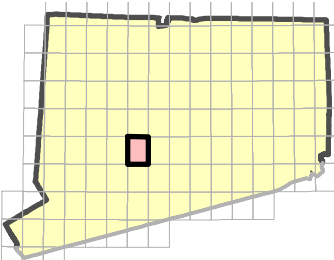
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FIGURES



1 inch = 2,000 feet



USGS Quadrangle data Copyright:© 2009
 National Geographic Society, i-cubedxt
 USGS Name: Mount Carmel, Connecticut
 USGS Quad ID: 41072-D8
 Date Rev: 1982
 Date Pub: 1985

Figure 1
Site Location Map
Town of Hamden
Public Works Garage
1125 Shepard Ave.
Hamden, Connecticut
HRP# HAM4063.WM
Scale 1" = 2,000'



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APPENDIX A
SPCC Regulations – 40CFR 112

APPENDIX B

SPCC Regulatory Cross-Reference

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Town of Hamden PWG SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.3(d)	Except as provided in § 112.6, a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part.	i	NA
112.3(d)(1)	By means of this certification the Professional Engineer attests:	i	NA
112.3(d)(1)(i)	That he is familiar with the requirements of this part:	i	NA
112.3(d)(1)(ii)	That he or his agent has visited and examined the facility:	i	NA
112.3(d)(1)(iii)	That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;	i	NA
112.3(d)(1)(iv)	That procedures for required inspections and testing have been established; and	i	NA
112.3(d)(1)(v)	That the Plan is adequate for the facility.	i	NA
112.3(d)(1)(vi)	That, if applicable, for a produced water container subject to § 112.9(c)(6), any procedure to minimize the amount of free-phase oil is designed to reduce the accumulation of free-phase oil and the procedures and frequency for required inspections, maintenance and testing have been established and are described in the Plan.	NA	NA
112.4(a)	Notwithstanding compliance with § 112.3, whenever your facility has discharged more than 1,000 U.S. gallons of oil in a single discharge as described in § 112.1(b), or discharged more than 42 U.S. gallons of oil in each of two discharges as described in § 112.1(b), occurring within any twelve month period, submit the following information to the Regional Administrator within 60 days from the time the facility becomes subject of this section:	§3.4	NA
112.4(a)(1)	Name of the facility;	§3.4	NA
112.4(a)(2)	Your name;	§3.4	NA
112.4(a)(3)	Location of the facility;	§3.4	NA
112.4(a)(4)	Maximum storage or handling capacity of the facility and normal daily throughput;	§3.4	NA
112.4(a)(5)	Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;	§3.4	NA
112.4(a)(6)	An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;	§3.4	NA
112.4(a)(7)	The cause of such discharge as described in § 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;	§3.4	NA
112.4(a)(8)	An additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and	§3.4	NA
112.4(a)(9)	Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.	§3.4	NA
112.4(d)	Amendment of Spill Prevention Control and Countermeasure Plan (SPCC) by Regional Administrator.	--	--
112.5(a)	SPCC amendments due to changes in facility design.	iii	NA
112.5(b)	Perform a review and evaluation of SPCC Plan at least once every five years. The owner/operator must document completion of the review and evaluation, and must sign a statement as to whether he will amend the SPCC Plan. The following will suffice: "I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result.	iii	NA
112.5(c)	Obtain Professional Engineers certification for any technical amendments in accordance with 11-2.3(d).	iii	NA
112.7(a)(1)	Include a discussion of your facility's conformance with the requirements listed in 40 CFR 112.7.	--	--

Town of Hamden PWG SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.7(a)(2)	Comply with all applicable requirements listed in this part. Except as provided in § 112.6, your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.9(d)(3), 112.10(c), 112.12(c)(2), and 112.12(c)(11), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraph (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan, following the procedures in § 112.4(d) and (e).	§6.3.1	✓
112.7(a)(3)	Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each fixed oil storage container and the storage area where mobile or portable containers are located. The facility diagram must identify the location of and mark as "exempt" underground tanks that are otherwise exempted from the requirements of this part under § 112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes, including intra-facility gathering lines that are otherwise exempted from the requirements of this part under § 112.1(d)(11). You must also address in your Plan:	Figures 1 and 2, Table 1	✓
112.7(a)(3)(i)	The type of oil in each fixed container and its storage capacity. For mobile or portable containers, either provide the type of oil and storage capacity for each container or provide an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities	Table 1 & Table 2	✓
112.7(a)(3)(ii)	(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.);	§6	✓
112.7(a)(3)(iii)	(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge.	§6	✓
112.7(a)(3)(iv)	(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);	§3	✓
112.7(a)(3)(v)	(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and	§6.3.3	✓
112.7(a)(3)(vi)	(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in case of discharge as described in § 112.1(b).	§3 & 4	✓
112.7(a)(4)	Unless you have submitted a response plan under 40 CFR 112.20, provide information and procedures in your SPCC Plan to enable a person reporting a discharge to relate information on the exact address or location and phone number of the facility...	§3 & 4	✓
112.7(a)(5)	Unless you have submitted a response plan under 40 CFR 112.20, organize portions of the SPCC Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency and include appropriate supporting materials as appendices.	§3 & 4	✓
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 a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.	Table 1 & Table 2	✓



Town of Hamden PWG SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.7(c)	Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in § 112.1(b), except as provided in paragraph (k) of this section for qualified oil-filled operational equipment, and except as provided in § 112.9(d)(3) for flowlines and intra-facility gathering lines at an oil production facility. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design. At a minimum, you must use one of the following prevention systems or its equivalent:	§6	✓
112.7(c)(1)	For onshore facilities: (i) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (ii) Curbing or drip pans; (iii) Sumps and collection systems; (iv) Culverting, gutters, or other drainage systems; (v) Weirs, booms, or other barriers; (vi) Spill diversion ponds; (vii) Retention ponds; or (viii) Sorbent materials.	§6	✓
112.7(c)(2)	For offshore facilities: (i) Curbing or drip pans; or (ii) Sumps and collection systems.	NA	NA
112.7(d)	When installation of structures or equipment, as outlined in 112.7(c) and (h)(1) and 40 CFR 112.8(c)(2), (c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2) and 112.14(c) is not practicable, clearly explain 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, unless you have submitted a response plan under 40 CFR 112.20 provide the following in your SPCC Plan: 1. Provide an oil spill contingency plan described in 40 CFR 109; and 2. Provide a written commitment of manpower, equipment, and materials to control and remove harmful quantity of oil discharged.	§6.2 §13	✓
112.7(e)	Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer developed for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.	§7	✓
112.7(f)	Personnel, training, and discharge prevention procedures	--	--
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, rule, and regulations; general facility operations; and, the contents of the facility SPCC Plan.	§10	✓
112.7(f)(2)	Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.	§10	✓
112.7(f)(3)	Schedule and conduct discharge prevention briefings for your oil handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in § 112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.	§10	✓

Town of Hamden PWG SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.7(g)	Security (excluding oil production facilities). Describe in your Plan how you 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.	§9	✓
112.7(h)	Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).	--	--
112.7(h)(1)	Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading/unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.	§6	✓
112.7(h)(2)	Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.	§6	✓
112.7(h)(3)	Prior to filling and department of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.	§6	✓
112.7(i)	If a field-constructed aboveground container undergoes a repair, alteration, reconstruction or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container of risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.	7.0	✓
112.7(j)	In addition to the minimal prevention standards listed under this section, include in your Plan 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.	NA	✓
112.8(b), 112.12(b)	Facility Drainage (for onshore facilities, except oil production)	--	--
112.8 (b)(1), 112.12 (b)(1)	Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.	6.3.2	✓
112.8 (b)(2), 112.12 (b)(2)	Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained storm water, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.	6.3.2	✓
112.8 (b)(3), 112.12 (b)(3)	Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.	6.3	✓
112.8 (b)(4), 112.12 (b)(4)	If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge retain oil in the facility.	6.3	✓

Town of Hamden PWG SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.8 (b)(5), 112.12 (b)(5)	Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in § 112.1(b) in case there is an equipment failure or human error at the facility.	NA	✓
112.8 (c), 112.12 (c)	Bulk Storage Containers (for onshore facilities, except oil production)	--	--
112.8 (c)(1), 112.12 (c)(1)	Bulk storage containers. (1) 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.	6.1	✓
112.8 (c)(2), 112.12 (c)(2)	Construct all bulk storage tank installations (except mobile refuelers and other non-transportation-related tank 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 alternative 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.	§6	✓
112.8 (c)(3), 112.12 (c)(3)	Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you: (i) Normally keep the bypass valve sealed closed. (ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in § 112.1(b). (iii) Open the bypass valve and reseal it following drainage under responsible supervision; and (iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§ 122.41 (j)(2) and 122.41 (m)(3).	6.3.2	✓
112.8 (c)(4)	Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.	NA	✓
112.8(c)(5)	Do not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.	NA	✓
112.8(c)(6)	Test or inspect each aboveground container for integrity 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 satisfy the recordkeeping requirements of this paragraph.	7.3	✓
112.8(c)(7)	Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.	NA	✓

Town of Hamden PWG SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.8(c)(8)	<p>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:</p> <ul style="list-style-type: none"> (i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities, an audible air vent may suffice. (ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level. (iii) Direct communication between tank gauger and pumping station. (iv) Fast response system for determining liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers. (v) You must regularly test liquid level sensing devices to ensure proper operation. 	Table 1 & 2 and §6	✓
112.8(c)(9)	Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in § 112.1(b).	NA	✓
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. You must promptly remove any accumulations of oil in diked areas.	§4 §6	✓
112.8(c)(11)	Position or locate mobile or portable oil storage containers to prevent a discharge as described in § 112.1(b). 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.	§6	✓
112.8(d)(1)	Facility Transfer Operations, Pumping, and Facility Process (onshore facilities, except oil production)	--	--
112.8(d)(1)	Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect if for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.	NA	✓
112.8(d)(2)	Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.	NA	✓
112.8(d)(3)	Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.	§6	✓
112.8(d)(4)	Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.	§7	✓
112.8(d)(5)	Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.	§6.3.4	✓

Town of Hamden PWG SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
Appendix C to Part 112	<p>Appendix C to Part 112 – Substantial Harm Criteria</p> <p>Section 2.1 A non-transportation-related facility with a total oil storage capacity greater than or equal to 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA.</p> <p>Section 2.2 Any facility with a total oil storage capacity greater than or equal to 1 million gallons without secondary containment sufficiently large to contain the capacity of the largest aboveground oil storage tank within each area plus sufficient freeboard to allow for precipitation must submit a response plan to the EPA. Secondary containment structures that meet the standard of good engineering practice for the purposes of this part include berms, dikes, retaining walls, curbing, culverts, gutters, or other drainage systems.</p> <p>Section 2.3 A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility could cause injury (as defined by 40 CFR 112.2) to fish and wildlife sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan. Facility owners or operators must determine the distance at which an oil spill could cause the appropriate formula presented in Attachment C-III to this appendix or a comparable formula.</p> <p>Section 2.4 A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2(c).</p>	Appendix E	✓

The following sections of the SPCC Rules do not apply to the facility:

- 112.9 SPCC Plan requirements for onshore oil production facilities.
- 112.10 SPCC Plan requirements for onshore oil drilling and work over facilities.
- 112.11 SPCC Plan requirements for offshore oil drilling, production, or work over facilities.
- 112.12 SPCC Plan requirements for animal, vegetable, & seed oils.

APPENDIX C
Spill Reporting Form
(Example)

**REPORT OF PETROLEUM
DISCHARGE, SPILLAGE, OR RELEASE**

When did the incident occur? Date_____ Time_____

Where did the incident occur?_____

How did the incident occur?_____

Under whose control was the petroleum product at the time of the incident? Please give their name, mailing address and telephone number.

Who is the owner of the property onto which the spill occurred? If this is corporate property or property owned jointly, who represents the owners? Please give their name, mailing address and telephone number.

When was the incident verbally reported to the TCEQ -- Date_____ Time_____

Who reported the incident and whom were they representing? Please give their name, title, mailing address and telephone number.

What were the petroleum products released, spilled, or discharged? Give an exact description of each of the materials involved in the incident, including chemical names, percent concentrations, trade names, etc. Please attach a Material Safety Data sheet (MSDS) for each product involved. What were the quantities released, spilled, or discharged to each environmental medium (air, surface water, soil, groundwater)?

Did any of the petroleum products travel beyond the property line? (NOTE: materials that enter the ground water are considered to have gone beyond the property line).

What actions are being taken to prevent reoccurrence of an incident of this type?



Were there any injuries as a result of this incident? If so, list the names of exposed individuals, their addresses, phone numbers, and describe their injuries.

What is the appropriate advice regarding medical attention necessary for exposed individuals?

Are there any known or anticipated health risks, acute or chronic, associated with the release of this chemical or medical advice that should be communicated?

Was the incident completely cleaned up by the time this report was submitted? If not, what are the anticipated remedial actions and their duration?

I hereby affirm that the foregoing statement is true to the best of my knowledge.

Signature Title Date

Print Name Telephone Number

Street Address/P.O. Box City/Town State Zip

This form may be reproduced or computerized as long as it contains all of the information requested and is on an 8-1/2" x 11" white paper, black type format. For serious incidents the questions may be answered in a narrative format which must include the preparer's affidavit.



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APPENDIX D

Inspection Logs

MONTHLY SPCC PLAN INSPECTION LOG

Town of Hamden Public Works Garage
Hamden, Connecticut

Inspection Date: _____

Inspector Name/Title: _____

Inspection Time: _____

Signature: _____

OIL-FILLED OPERATIONAL EQUIPMENT

Location / Description	Free of Leaks or Spills		Units maintained in Good Condition (no corrosion, sturdy supports and foundations)		Problems Identified	Corrective Actions Taken & Date
	Acceptable	Unacceptable	Acceptable	Unacceptable		
Equipment						
Pad mounted transformer located north of building						
Mobile Generator						

In addition verify spill kits are adequately stocked

MONTHLY SPCC PLAN INSPECTION LOG

Town of Hamden Public Works Garage
Hamden, Connecticut

Inspection Date: _____

Inspector Name/Title: _____

Inspection Time: _____

Signature: _____

BULK FUEL STORAGE CONTAINERS

Tank Location/Description	Secondary Containment Maintained (complete dike draining log as necessary)		Fill and Drain Valves Securely Locked		Free of Leaks or Spills		Containers and piping in Good Condition (no corrosion, sturdy supports and foundations)		Level Indicator Functional/Overfill Protection		Problems Identified (enter work order as necessary)	Corrective Actions Taken & Date
	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable		

ABOVE-GROUND STORAGE TANKS AND DRUMS

6,000-gallon Diesel ConVault AST												
4,000-gallon Gasoline ConVault AST												



ANNUAL INTEGRITY INSPECTION LOG

Town of Hamden Public Works Garage
Hamden, Connecticut

Inspection Date: _____

Inspector's Name/Title: _____

Inspection Time: _____

Signature: _____

Container ID	Containment structure in satisfactory condition?	Drainage pipes/valves within containment fit for continued service.	Evidence of tank settlement or foundation washout	Cracking or spalling of foundation	Tank supports in satisfactory condition	Water able to drain away from tank	Grounding strap secured and in good condition	Evidence of paint failure	Any damage evident to the tank shell?	Flanged connection bolts tight and fully engaged with no sign of wear or corrosion	Standing water on tank	Vents free of obstructions	Emergency vent operable? Lift as required	Insulation damaged or missing	Are there noticeable areas of moisture on the insulation	Mold on insulation	Is the insulation sufficiently protected from water intrusion	Has the tank liquid level sensing device been tested to ensure proper operation	Does the tank liquid level sensing device operate as required	Are overfill prevention devices in proper working condition	Are tank grounding lines in good condition	Is electrical wiring for control boxes/lights in good condition	Comments		
6,000-gallon Diesel ConVault AST*																									
4,000-gallon Gasoline ConVault AST																									

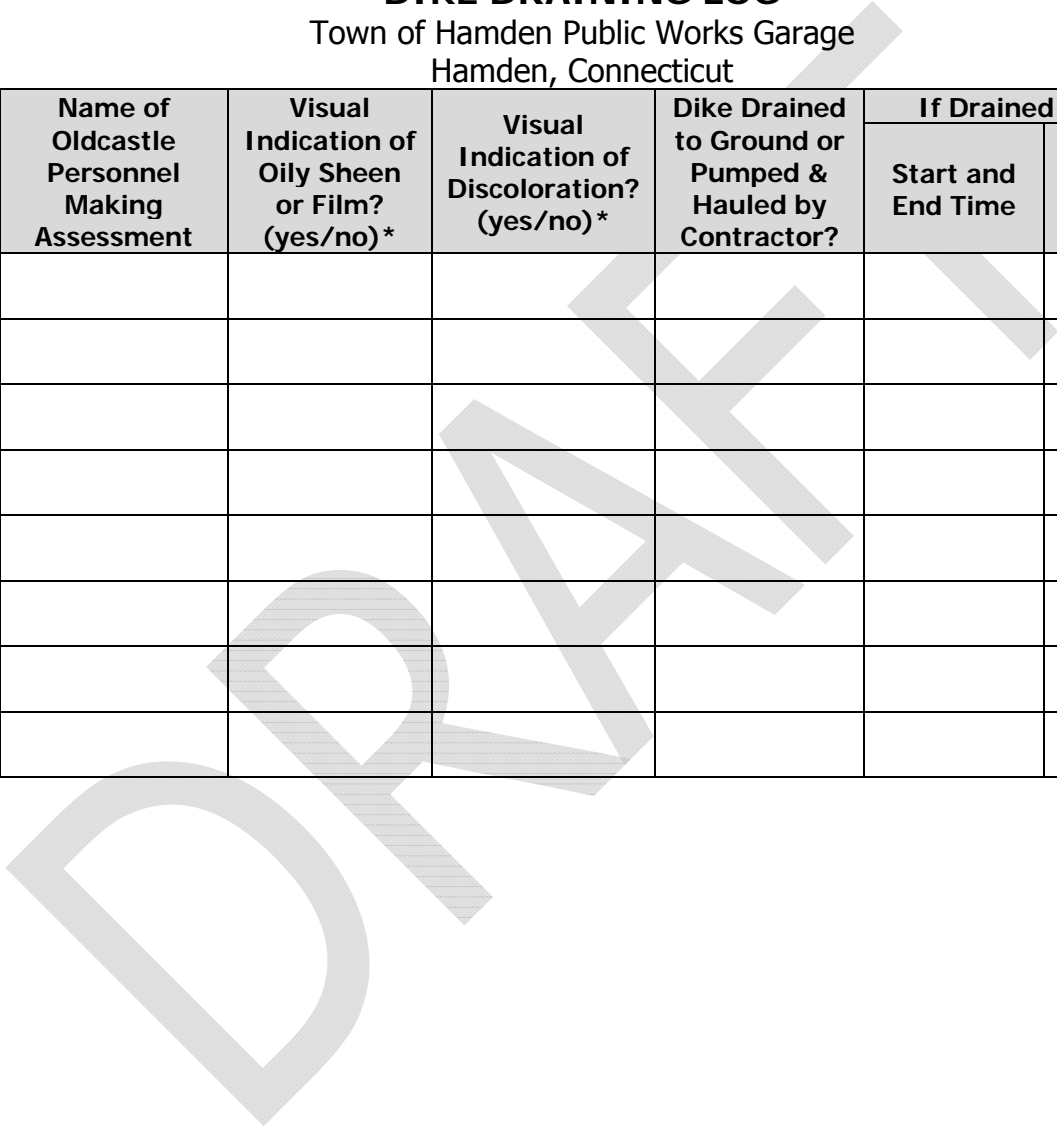
*This/These Tank(s) also require(s) 20 year external integrity testing. Date of Last Test: _____



DIKE DRAINING LOG

Town of Hamden Public Works Garage
Hamden, Connecticut

Date	Dike or Secondary Containment Location	Name of Oldcastle Personnel Making Assessment	Visual Indication of Oily Sheen or Film? (yes/no)*	Visual Indication of Discoloration? (yes/no)*	Dike Drained to Ground or Pumped & Hauled by Contractor?	If Drained to Ground**		If Pumped & Hauled, Indicate Name of Contractor Used
						Start and End Time	Return Drain Valve to Closed & Locked Position	



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APPENDIX E

Certification of the Applicability of the Substantial Harm Criteria Checklist

CERTIFICATION FOR FACILITIES THAT DO NOT POSE SUBSTANTIAL HARM

Facility Name: Town of Hamden Public Works Garage

Facility Address: 1125 Shepard Ave. ■ Hamden, Connecticut

	<u>YES</u>	<u>NO</u>
1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfers of oil to or from vessels?		X
2. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility without secondary containment for each above ground storage area sufficiently large to contain the capacity of the largest above ground storage tank within the storage area?		X
3. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula ² considered acceptable by the RA) such that a discharge from the facility could cause injury to an environmentally sensitive area as defined in Appendix D?		X
4. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula ¹ considered acceptable by the RA) such that a discharge from the facility would shut down a public drinking water intake?		X
5. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and within the past 5 years, has the facility experienced a reportable spill in any amount greater than or equal to 10,000 gallons?		X

² If an alternative formula is used, documentation of the reliability and analytical soundness of the alternative formula must be attached to this form.

CERTIFICATION FOR FACILITIES THAT DO NOT POSE SUBSTANTIAL HARM

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

Signature

Name (Please type or print)

Title (Please type or print)

Date

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APPENDIX F

Training Roster (Example)

Town of Hamden Public Works Garage 1125 Shepard Ave. Hamden, Connecticut	SPCC Plan Training Roster	
Date:	Training Conducted By:	
Employee Name	Type of Training (Circle One)	Employee Signature
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
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	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	

By signing this form, each employee acknowledges that he/she has received SPCC Plan training and has an understanding of all material presented, including his/her responsibilities with regard to spill prevention and response at The CT Oil Company. Completed Training Rosters may be maintained in Appendix H of the SPCC Plan.



APPENDIX G

Photo Log of Oil Storage Locations



Photo Description: Transformer



Photo Description: Dual Compartment 10,000-gallon ConVault AST



Photo Description: Mobile Equipment stored inside building.



Photo Description: Dual Compartment 10,000-gallon ConVault AST

APPENDIX H
SPCC Plan Records

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APPENDIX I

ConVault Onsite Integrity Testing Procedures



Above Ground Fuel Storage Solutions

Onsite Integrity Testing Procedures

Onsite Inspection & Testing Recommendations
to Meet Requirements of EPA SPCC Regulations

Release Date: January 31, 2014

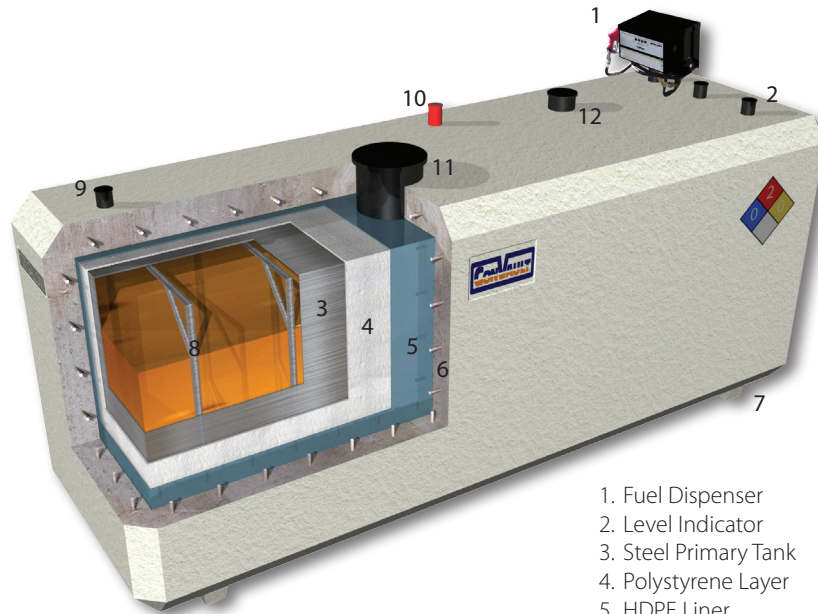
The ConVault System

ConVault is an above ground, fuel and oil storage system manufactured for the purpose of above ground storage. The purpose of this testing procedure document is to aid ConVault owners and engineers in complying with the requirements of the Spill Prevention Control and Containment regulations for integrity testing or inspection as found at 40 CFR 112.8(c)(6) in effect as of January 14, 2010.

The ConVault system includes:

1. **Primary containment:** Inner shop fabricated steel tanks built in accordance with UL 142 Standard. The tank is pressure tested for 24 to 48 hours after fabrication process, again pressure tested during the precasting process, and also prior to shipment of the tank.
2. **Secondary containment:** Consists of a high density polyethylene (HDPE) liner. This secondary containment is vacuum tested prior to shipment of the tank.
3. **Encasement** inner steel tank and the HDPE liner are encased on all sides in 6" thick reinforced concrete. The entire system is elevated upon 4" to 6" high integral concrete legs.

The ConVault above ground fuel storage system is manufactured and tested in accordance with the UL 2085 Standard.



- | | |
|------------------------|--------------------------|
| 1. Fuel Dispenser | 7. Support Legs |
| 2. Level Indicator | 8. Internal Bracing |
| 3. Steel Primary Tank | 9. Atmospheric Vent |
| 4. Polystyrene Layer | 10. Leak Detector Tube |
| 5. HDPE Liner | 11. Overfill Containment |
| 6. Reinforced Concrete | 12. Emergency Vent |

ConVault is thus a three layered containment system; Primary steel tank, secondary HDPE liner and exterior concrete layer acting as a dam or dike. The integrity of each layer will be addressed in the following steps.

Note regarding Steel Tank Institute Standard Inspection Guidelines STI SP001: *STI SP001 requirements are not prepared or issued with inspection criteria that are readily applicable to other AST manufacturers especially to the concrete tanks. The STI SP001 should make a notation to say: Inquire with the manufacturer of the tank before utilizing SP001 to inspect your ConVault tank. Some portions of STI SP001 are applicable to the inspection of ConVault, such as inspection frequency. A copy of the STI SP001 Standard can be found at:*

www.steeltank.com/Publications/STISPFASStore/tabid/487/Default.aspx

In no case should a pressure test be performed on the secondary containment. Serious damage to the tank system may result from pressure testing.

Refer to manufacturer's drawings and specifications to confirm the configuration of your tank. If you do not have drawings and specifications please contact the supplier or, manufacturer or call 1-888-965-3227.

- *Testing of ConVault tanks may be completed by qualified personnel following this testing methodology.
If you require assistance sourcing a qualified testing professional please call 1-800-965-3227 or visit www.convault.com.*
- *Testing should proceed only after reviewing all previous test records and any documentation detailing modifications, repairs, and visible or known damage to the tank.*
- *ConVault tank systems feature a nameplate which will provide the Underwriters Laboratory listing serial number. Include this number in the documentation of inspections.*
- *This testing procedure will not apply or may not be adequate if:*
 - *The ConVault has been moved from its original location;*
 - *The ConVault has sustained known or apparent trauma or impact;*
 - *Products incompatible with the inner steel tank have been put into the ConVault.*

Test Protocol

1. Examine the area under and around the ConVault (pavement, drip pan, soil) for signs of movement or settlement that could lead to system performance problems.
2. Examine the area under and around the ConVault for signs of spills and if any are found, document the location relative to the ConVault tank.
3. Examine the exterior (sides and bottom) of the ConVault noting any cracks and/or damage to the concrete outer layer.
4. During the inspection of the ConVault exterior pay particular attention to any signs of fuel or oil leaks that may manifest as staining on the exterior of the concrete or dirt, dust or soil that may adhere to spilled fuel or oil. Document the location and nature of any signs of fuel or oil on the exterior (sides and bottom).
5. Fuel or oil spills on the side of a ConVault emanating from the top of the tank will be addressed in later sections of this document.
6. If fuel or oil is found in specific areas of the side or bottom of the ConVault the owner/user should be notified immediately.
 - i. Inquire as to the time frame the owner/user first noticed the spill.
 - ii. Note whether any fuel or oil has accumulated on the surface under the ConVault which can be specifically related to the location of fuel or oil present on the exterior (side and bottom). If any fuel or oil is noted on the surface under the ConVault, the owner/user should be notified immediately and the owner/user should take immediate steps to notify any appropriate governing authorities.

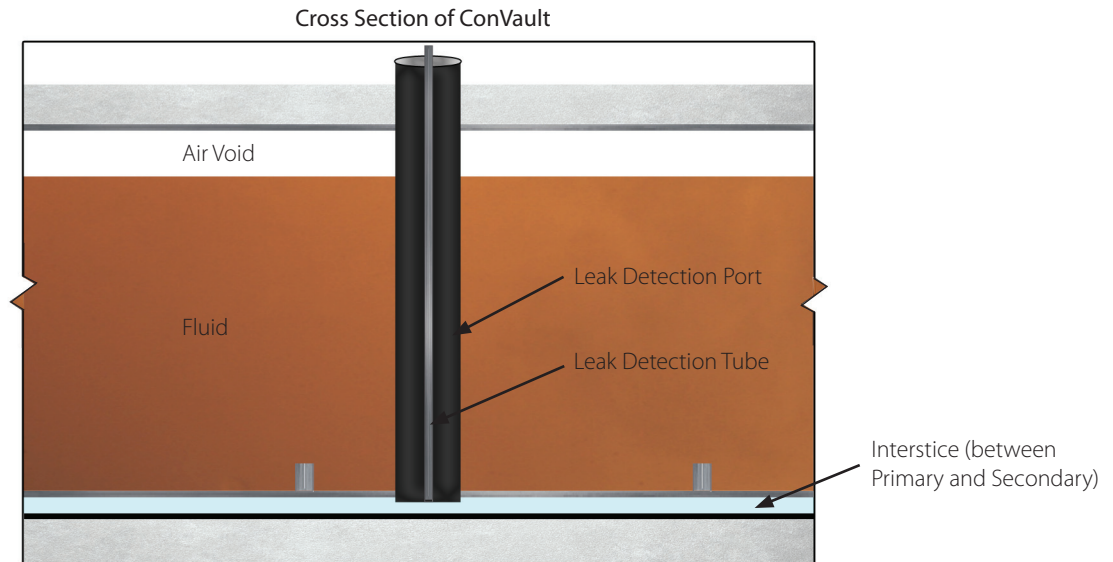
If no evidence of leakage is noted on the exterior of the concrete containment layer then the inspection report indicate so.

7. Examine the top of the ConVault. Note: Examination of the top of the ConVault may involve persons walking on top of the tank and appropriate safety precautions should be implemented to insure the safety of the inspector from falls or injury related to tripping upon hardware. If appropriate a second person should be utilized to assist.
8. While inspecting the top of the tank, first locate and note the location, configuration, condition and types of any plumbing, meters and dispensing equipment.
 - i. Minor fuel spillage on top of the ConVault is not uncommon and may make it difficult to determine the actual source of leaks. Any leaks directly related to the plumbing, meters, dispensing equipment or other hardware used to load or dispense fuel should be noted. Rust or other deterioration should also be noted.
 - ii. Closely inspect the interfaces between the steel connections protruding from concrete. Note any areas that should be resealed to prevent the introduction of rain water into the system.
 - a. Consult with the tank manufacturer or call 1-800-965-3227 for recommendations.
 - iii. Note the condition of the concrete surface. The surface should be relatively clean and smooth without cracks, holes or other deteriorations. A functioning layer of sealant (waterproof) paint should be present across the entire surface of the concrete top.
 - a. Use only recommended products to re-coat the top of the ConVault after thoroughly cleaning with bio-degreaser and light pressure cleaning.

Test Protocol (cont.)

9. Inspection of the primary steel tank

- i. At this point the inspector should locate and note the leak detection port.
- ii. The integrity of the inner steel primary tank is accomplished by checking for fluid between the steel tank and the HDPE liner. See below.



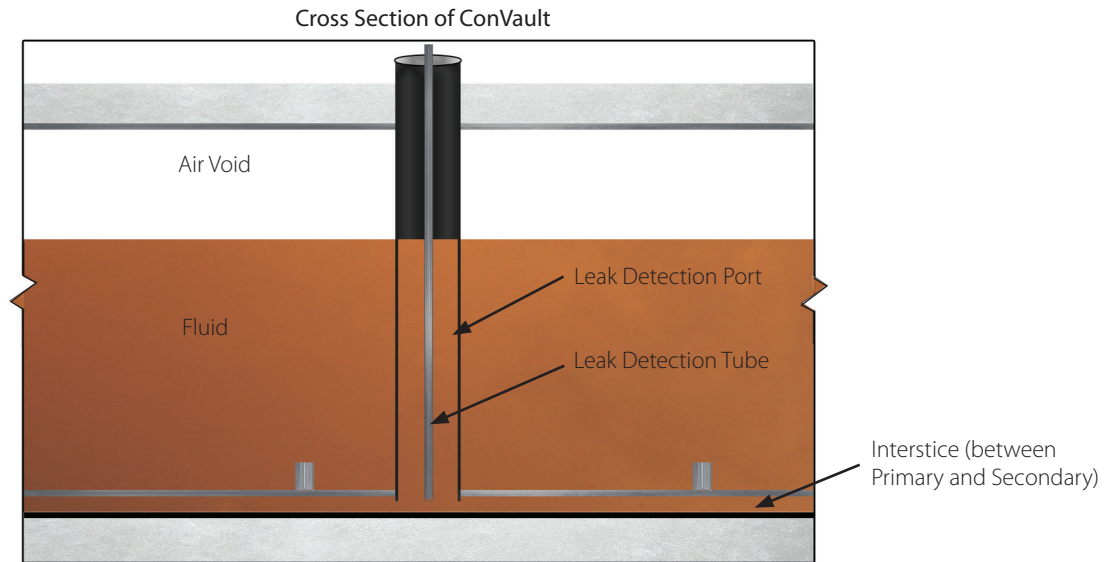
Case: Steel tank is uncompromised

Result: Fuel remains safely stored in tank

The inspector should obtain a clean wood or plastic inspection (non-pointed) rod of sufficient length to reach the full depth of the inner steel tank. With the inspection port cap opened, insert the rod to the bottom of the tube.

- iii. Withdraw the inspection rod and visually examine it.
 - a. If the rod is dry and there is no liquid present then the primary steel tank is not leaking and the ConVault is suitable for continued use .
See next page if the rod is wet.

Test Protocol (cont.)



Case: Steel tank has been breached

Result: Fuel is trapped by liner and is easily detected with probe

- b. If the rod is wet then the inspector must determine the nature of the liquid, water or fuel.
 1. If the liquid on the inspection rod is water then rainwater has entered the system due to inspection port cap being left off or water has entered the system due to a gap between the concrete outer layer and plumbing on top of the tank.
 - The water should be extracted from the tank interstice. Consult with ConVault or the manufacturer of your ConVault or call 1-800-965-3227 for recommendations as to water removal techniques.
- c. If the rod is wet and smells of fuel or oil or has a sheen then:
 1. The owner/user should be notified immediately.
 2. It is possible that fuel or oil was introduced into the interstice through the inspection port. The fuel or oil should be extracted from the interstice. At this point and after complete extraction of the fuel or oil the rod should be re-introduced into the inspection port to check for the presence of fuel or oil. If the interstice contains fuel, after pumping out the fuel, the fuel entrapped in the secondary containment will flow down and fuel might be seen in the leak detector tube again. In this case, the best way of insuring the integrity of the primary tank is a pressure or vacuum test, using the ConVault testing manual: www.convault.com/testingmanual.pdf
 3. The inner steel primary containment tank may have leaked and the tank should be tested to determine if primary has failed.
 - At this point, the owner/user should contact the installer or manufacturer of the ConVault or call 1-800-695-3227 for recommended next steps.

Industry Standard Requirements for Tank Inspection Frequency

For the sake of consistency, the standard for testing frequency for ConVault fuel and oil containment systems should be consistent with the requirements of STI SP001 which is detailed below and is normally a function of the size of the tank and its Category per SP001 Standard.

Tank Categories

The tank categories and inspection schedule from SP001 are to be utilized for ConVault tanks.

Among other factors, owners should take a number of aspects into consideration such as the tank leak detection system, and that the monitoring equipment is in good working condition.

Based on many considerations, the SP001 standard classifies tanks into three categories. Depending on the risk a tank system poses to the environment if kept in service it is ranked as a category 1, 2 or 3 tank. Category 1 tanks pose the least amount of risk and category 3 the highest.

See **Table 5.4** of the standard, reproduced here, for examples of tank configuration and AST category. Please note that if the AST bottom plate, other than its legs or supports, is in contact with the ground or a concrete slab, it is prone to corrosion and increased susceptibility to leakage. Shop Fabricated Tanks in contact with the ground or a concrete base are almost always vertical tanks. Such tanks are placed in Category 2 or 3. ASTs which are elevated, have a leak detection system, have spill control and have no part of the tank in contact with the ground (other than legs or supports) are classified as category 1 tanks.

Table 5.4: Example Tank Configurations and AST Category

	Tank Configuration	Tank has CRDM	AST Category
	AST in contact with ground	No	2 or 3
ConVault →	Elevated tank w/ spill control & no part of AST in contact w/ ground	Yes	1
	Vertical tank w/ RPB & spill control	Yes	1
	Vertical tank w/ double bottom & spill control	Yes	1
	Double-wall AST	Yes	1
	AST w/ secondary containment dike/berm	Yes	1

CRDM: Continuous Release Detection Method – or Leak Detection System

RPB: Release Prevention Barrier

Inspection Type and Frequency

The SP0001 standard requires different inspection types and different inspection intervals based on the tank size, tank category, and the risk it poses. The tank inspection intervals from SP001 are to be followed for ConVault tanks.

In Table 5.5 of SP0001 (see next page), those portions pertaining to shop fabricated tanks up to 30,000 gallons have been highlighted showing inspection schedules for the different AST categories.

Industry Standard Requirements for Tank Inspection Frequency (cont.)

In Table 5.5 use the following designations:

P - Periodic AST inspection

E - Formal External Inspection by Certified Inspector

L - Leak test by owner's designee

I - Formal Internal Inspection by Certified Inspector

() indicates maximum inspection interval in years. For example; E (5) indicates formal external inspection every 5 years.

SP001 Table 5.5: Inspection Schedules

ConVault



Shop Fabricated AST Size (US Gallons)		Category 1	Category 2	Category 3
Shop Fabricated ASTs	0-1100 (0-4,164 liters)	P	P	P, E & L (10)
	1,101 - 5,000 (4,168 - 18,927 liters)	P	P, E & L (10)	P, E & L (5), I (10) or P, L (2), E(5)
	5,001 - 30,000 (18,931 - 113,562 liters)	P, E (20)	P, E (10), I (20) or P, E (5), L(10)	P, E & L (5), I (10) or P, E & L (5), E(5)
	30,001 - 50,000	P, E (20)	P, E & L (5), I (15)	P, E & L (5), I (15)
Portable Containers		P	P	P*

*Owners shall either discontinue use of portable container for storage or have the portable container DOT (Department of Transportation) tested and recertified per following schedule (refer to Section 9.0):
 Plastic containers – every 7 years; steel portable container – every 12 years
 Stainless Steel container – every 17 years

Periodic Inspection Requirements

ConVault tanks of 5,000 gallons or less capacity are CATEGORY 1 TANKS. Owners of ConVault ASTs of this size are NOT required to employ Certified AST Inspectors to inspect their tanks to comply with the standard's requirements, but can be in compliance with the standard by inspecting the tanks themselves or having their employees inspect them. ConVault tanks larger than 5000 gallons, are also self-inspected and only require inspection by a Certified Inspector after 20 years of service.

What qualifications are required for the owner to self-inspect his tank, and how does the owner need to know what to inspect?

Section 4 of the SP001 standard defines the qualifications of the Owner's Inspector as follows: *"Periodic inspections are to be performed by an owner's inspector. The personnel performing these inspections shall be knowledgeable of storage facility operations, the type of AST and its associated components, and characteristics of the liquid stored."*

Section 6 of the standard STI SP001 explains what is meant by the PERIODIC AST INSPECTION – and what needs to be inspected and kept in the owner's AST records. These are simple and straight-forward tasks which can be performed by any competent owner or his employees. The standard makes it very easy to know what to do and what to check for by providing a check list in the standard's Appendix C. The first section requires filling in information about the owner and the ID of the tank. The second section is the SP001 Monthly Inspection Checklist which consists of 9 easy to check, Yes or No questions such as; is there water in primary or secondary containment, are there visible signs of leakage around the tank, concrete pad, or ground, are all tank openings properly sealed, etc. The third section is the SP001 Annual Inspection Checklist which contains 27 questions with Yes or No answers and a space for comments. It should be noted that the Periodic Inspection must be performed in addition to the Formal External Inspections.

Simply put, the periodic inspection requirements are visual, documented inspections conducted by an owner's inspector, to assess the general AST conditions, as best as possible, without suspending AST operations or removing the AST from service.

ConVault strongly encourages the use of the Monthly and Annual Inspection Checklists provided in SP001, and, in fact, requires some of these items be checked on a weekly basis as part of the ConVault warranty.

See Pages 10-12 for a ConVault specific Maintenance Checklist.

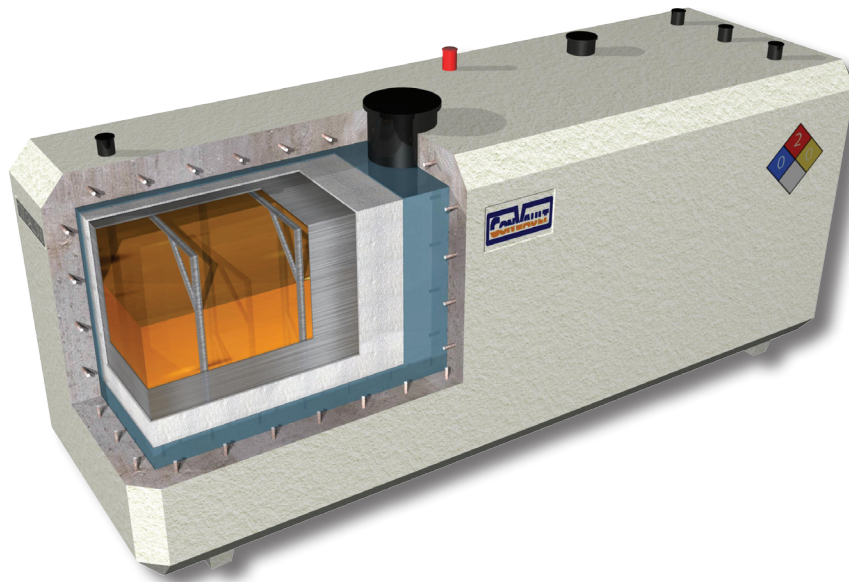
**A copy of ConVault's weekly/monthly/yearly checklist is available online at
<http://www.convault.com/pdfdoc/checklist.pdf>.**

Summary

- As an owner of a ConVault you are NOT required to employ Certified Inspectors or a registered Professional Engineer to perform inspections on ConVault ASTs up to 5,000 gallons for most installations .
- For ConVault ASTs from 5,001 to 12,000 gallons you will need an External Inspection by a Certified Inspector once every 20 years for most installations.
- Monthly and yearly inspections by the tank owner or a designated employee are required by SP001, and Inspection Checklists are provided in Appendix C of the document.
- ConVault requires that the interstice be checked on a weekly basis using the inspection port and rod method described on Page 4.
- A newly installed ConVault AST will meet all the requirements of the SP001 checklists.

Visit: www.epa.gov/emergencies/docs/oil/spcc/integrity-testing-factsheet.pdf

if you have any questions regarding the EPA Spill Prevention, Control and Countermeasure Plan (SPCC) Program



Maintenance Checklist

Inspection Date _____

Inspector _____

Note: This checklist is designed for general use. Some items may not apply. All equipment inspections and maintenance should be documented. You are **encouraged** to make copies of this checklist. See the corresponding maintenance procedures and your owner's manual for corrective actions and more details.

Weekly Maintenance:

- 1. Check leak detector for indication of fluid in interstice. (This is required by warranty.) If checked with a stick gauge, ensure the stick is clean and dry before insertion.
- 2. Check for leaks on the pumps, filters, hoses, nozzles, joints and fittings.
- 3. Check nipples, spill containment and manholes for paint or powder coating decay (required by warranty). Check piping and fitting for rust.
- 4. Check pump meter and reset button.
- 5. Check fuel gauge for proper operation. If you have a Kruger At-A-Glance Gauge, check the clear cap for weathering or cracks.
- 6. Check spill containment for debris.
- 7. Check for small cracks in concrete.
- 8. Check readability of signs and decals.

Monthly Maintenance:

- 9. Check for water in the primary tank bottom under the fuel (required by warranty).
- 10. Visually check the tank, including under the tank for any signs of leakage as required by the Environmental Protection Agency 40 CFR 112.
- 11. Check leak detector tube cap for corrosion and proper operation. If a Kruger manual leak indicator is installed, remove the red ring and clear cap and check to see that the red indicator moves up and down about 1 inch freely. Also, check for weathering or cracks in the clear cap. If electronic leak detection is installed, check it by using the test button.
- 12. Check all nozzles, hoses and fittings for wear and tear.
- 13. Check trigger mechanism on nozzle for metal fatigue or mechanical failure.
- 14. Check pump motor for signs of over-heating or excessive wear.
- 15. Check body of tank for cleanliness, need of paint, or rusting where applicable. Check signs and decals for need of replacement. Check slab and supports of unit for structural soundness.
- 16. Check grounding wires to see that they are properly attached to the tank terminals and grounding rod.

Other Periodic Maintenance:

- 17. Replace the dispenser filter at least every six (6) months or as needed (mark the date replaced on the filter).
- 18. Check fuel for bacterial infestation or microbial growth.
- 19. Have a qualified person periodically check all electrical wiring.
- 20. Check the emergency relief vent at least once a year by lifting the top cap and releasing it to ensure freedom of movement.
- 21. At least once a year, remove the leak detection device and check for proper operation.
- 22. At least once a year, check the calibration of the fuel gauge.
- 23. Follow the pump manufacturer's recommendation for frequency and procedures of maintenance.
- 24. Document significant storage events per 40 CFR 112 and your state regulations.

Maintenance Procedures

Please note that item numbers on this sheet corresponds with the item numbers on the Maintenance Checklist. Most of the maintenance requirements and procedures are also covered in the Convault owner's manual.

Weekly Checks:

1. If leak detector indicates fluid in the interstice, remove any devices and determine what the fluid is. Call your Convault representative.
2. If leaks are detected, contact the appropriate authorities as necessary. Tighten, repair as necessary, replace components, or contact your installer or service company.
3. If paint or powder coating deterioration occurs on nipples, spill containment or manholes, clean to bare metal, prime with a good quality zinc based primer, and repaint. If corrosion is severe, contact your Convault representative as soon as practical.
4. If dispenser meter is not working or will not reset, call your service company or installer.
5. If the fuel gauge fails to operate properly, repair/replace it, or call your service company before the next delivery. (It is the owner/operator's responsibility to prevent the overfilling of the tanks. The gauge is part of the required system to prevent overfilling.) If the Kruger cap has deteriorated, it could be allowing rainwater into the primary tank and should be replaced.
6. Keep spill containment clear of debris at all times. A contaminated spill containment will cause the fuel to be contaminated when any spill is released through the drain into the primary tank. Materials such as rags or paper products used to clean the spill containment must be disposed of properly, as they will usually contain fuel from the spill containment.
7. If there are small cracks in the concrete, fill and repair them. If you have questions, call your local Convault representative.
8. If signs or decals lose visibility, order replacements from your local Convault representative before the next time the tank is filled.

Monthly:

9. If there is water in the tank it will collect at the bottom, under the fuel. Water in the tank will cause increased corrosion. If you discover water in the primary tank it must be removed. One method is to pump it out with a "Thief Pump", a small pump that pulls the water from the bottom 1/8" of the tank. Check tank openings for possible water entry points. If you find that you are pumping out more than one half gallon of water for every 1000 gallons of product stored, see your fuel dealer, or call your Convault representative. Also consult item (I) in the maintenance section of the owner's manual.
10. If you detect leakage, determine what the liquid is, if possible, and call your Convault representative and appropriate authorities as necessary.
11. If there are problems with the leak detector tube or lock, clean and lubricate them as necessary. See item (G) in the maintenance section of the owner's manual. If the Kruger leak indicator does not function properly, remove it and repair or replace it. Due to ultraviolet radiation, the clear cap on the Kruger leak indicator will deteriorate over time. If it has deteriorated, it could be allowing rainwater into the interstitial area and should be replaced. New caps and rings or entire units can be purchased from Kruger, your service company, or your Convault representative. Kruger now offers a guard, which will prolong the life of the cap. If electronic leak detection test fails, call your service company.

12. If nozzles, hoses or fittings exhibit signs of wear and tear, repair/replace as necessary or call your service company.
13. If trigger mechanism on nozzle exhibits signs of metal fatigue or mechanical failure, replace nozzle or call your service company.
14. If pump motor shows signs of overheating or excessive wear, repair as necessary or contact your service company.
15. Clean, paint, and repair problem areas as necessary. Order replacements signs or decals from your local Convault representative. If the slab is cracking or settling, contact your local Convault representative and your slab installer. If you have questions, call your local Convault representative.
16. If grounding wires are not attached properly, make appropriate changes or call your installer or your service company.

Other Periodic Maintenance:

17. Filters can be purchased from your Convault representative or local service company. The date can be scratched on with a sharp object, or written with a permanent marker.
18. If bacterial infestation is detected, consult item (H) in the maintenance section of the owner's manual.
19. Repair as necessary. Wiring (other than intrinsically safe items) in a class 1 area requires special sealing to prevent explosions.
20. If the emergency relief vent exhibits signs of motion restriction, promptly call your installer, your service company, or your Convault representative. Proper operation of this device is critical as most injuries and fatalities that happen in conjunction with fuel fires are due to improper, non-functional emergency relief vents or emergency relief vents replaced with normal pipe caps.
21. Most leak detection devices use a float. By removing the device from the leak detector tube and turning it upside down (simulating a floating situation) you can easily check for movement of the float and proper mechanical or electronic indication. If the leak detection device fails to operate properly, call your installer or your service company.
22. The fuel gauge can be checked by "sticking" the tank and comparing it to the gauge reading. Some gauges are more accurate than the stick. If the gauge reading varies substantially from the stick reading, contact the gauge manufacturer or service company. If your stick reads in inches only and you need a calibration chart, contact your Convault representative.
23. Pump maintenance requirements vary by manufacturer. If you have questions, contact your installer, local service company, or the manufacturer of the equipment.
24. If you have a warranty or environmental problem down the road, documentation will be very helpful. We recommend that you keep a copy of the "Maintenance Checklist" with items marked for every maintenance inspection. Notes about problems and corrections can be written on the back of the sheet and used for future reference. Many sites are now required to have a SPCC plan for emergencies on file. If you need a recommendation for companies that do this, please call your Convault representative. **The name, phone number and location of your local representative can be obtained from the Convault web site by clicking on "Local Distributor" and your state or country at <http://www.convault.com>.**



convault.com

888-965-3227

SPILL PREVENTION, CONTROL & COUNTERMEASURE PLAN

Town of Hamden Public Works Garage ■ 1125 Shepard Ave. ■ Hamden, Connecticut

SPILL PREVENTION, CONTROL & COUNTERMEASURE PLAN

Town of Hamden Public Works Garage ■ 1125 Shepard Ave. ■ Hamden, Connecticut



MOVE YOUR ENVIRONMENT FORWARD

SPILL PREVENTION, CONTROL & COUNTERMEASURE (SPCC) PLAN

**Town of Hamden Public Works Maintenance Garage
(VOED Building)
Hamden, Connecticut**

Original Prepared:

August 2012

Revision(s):

March 2013

Prepared By:

HRP Associates, Inc.
197 Scott Swamp Road
Farmington, Connecticut 06032

HRP #: HAM4063.WM

Issued On: June 19, 2018



This Spill Prevention Control and Countermeasure (SPCC) Plan was generated at the request of Town of Hamden Department of Public Works by HRP Associates, Inc. (HRP). It is the privileged property of Town of Hamden Department of Public Works and HRP., and is not to be distributed to or shared with anyone other than authorized personnel of Town of Hamden Department of Public Works, HRP Associates, Inc., and/or local, state, or federal regulatory or emergency response authorities. This SPCC plan has been certified by a Professional Engineer and an original copy has been retained by HRP Any changes or modifications made to this plan (other than non-technical amendments such as changes to phone numbers or names) by Town of Hamden Department of Public Works which are not certified by a Professional Engineer negate the Professional Engineer certification and may lead to a violation of the applicable SPCC regulations.

DRAFT

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- Appendix G Photo Log of Oil Storage Locations
- Appendix H SPCC Plan Records
- Appendix I ConVault Onsite Integrity Testing Procedures

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that (i) I am familiar with the requirements of 40 CFR Part 112, (ii) my agent has visited and examined the facility, (iii) the plan has been prepared in accordance with good engineering practices including the consideration of applicable industry standards, (iv) procedures for required inspections and testing have been established, (v) and the Plan is adequate for the facility.

Printed Name of Registered
Professional Engineer
HRP Associates, Inc.
197 Scott Swamp Road, Farmington, CT 06032
860-674-9570

Signature of Registered
Professional Engineer

(Professional Engineer Seal)

Date: _____ Registration No: _____ State: _____

Note: This certification is contingent on meeting the action items listed in Section 13.0 of this plan. This certification shall in no way relieve Town of Hamden Department of Public Works of its duty to prepare and fully implement a SPCC Plan in accordance with 40 CFR 112.7, as required by 40 CFR 112.3(a), (b), and (c).



GENERAL FACILITY INFORMATION

Name and Location of Facility: Town of Hamden Public Works Maintenance
Garage (VOED Building)
1255 Shepard Avenue
Hamden, CT 06518

Type of Facility: Municipal Government, Public Works Building

Telephone Number: (203) 287-7044

Normal Operating Schedule: 7:00 am to 3:30 pm Monday through Friday

Name and Address of Owner/Operator: Town of Hamden
2750 Dixwell Avenue
Hamden, CT 06518

Designated Person Responsible for
Spill Prevention at the Facility: John Pucillo
(203) 287-2626 (office) (203)796-2548

Date of Initial Operation of Facility: 1970

Oil Spill History: None

Receiving Waters: Unnamed Brook discharges to Shepard Brook

MANAGEMENT APPROVAL

Town of Hamden VOED Building is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains the highest standards for spill prevention control and countermeasures through regular reviews, updating and implementation of this SPCC Plan for its facility in Hamden, Connecticut. This SPCC Plan will be implemented as herein described. By signing this document, I certify that I am thoroughly familiar with this SPCC Plan.

Signature: _____

Authorized Facility Representative: John Pucillo

Title: Superintendent of Vehicle Maintenance



COMPLIANCE INSPECTION PLAN REVIEW PAGE

In accordance with 40 CFR 112.5(b), a review and evaluation of this SPCC Plan is conducted at least once every five years. As a result of this review and evaluation, Town of Hamden VOED Building will amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of review. Any amendment to the SPCC Plan shall be certified by a Professional Engineer* (in accordance with 40 CFR 112.3(d) within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility’s potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.

REVIEW DATE (at least every 5 years)	PLAN UPDATE REQUIRED (YES/NO)	DESCRIPTION OF REQUIRED REVISION	SIGNATURE CERTIFYING TO STATEMENT BELOW**	DATE OF AMENDMENT (if necessary)
10/2017	Yes	5 year review and update	<input checked="" type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	
			<input type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	
			<input type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	
			<input type="checkbox"/> will amend <input type="checkbox"/> will not amend Signature: _____	

CERTIFICATION STATEMENT

**A Professional Engineer’s certification is required if (1) the site maintains oil in excess of 10,000 gallons, (2) the site has a single discharge exceeding 1,000 gallons or two discharges each exceeding 42 gallons within a twelve month period in the three years prior to the SPCC Plan self certification date, or (3) the SPCC Plan deviates from any requirements as allowed by 40 CFR 112.7(a)(2) and 112.7(d) except as provided in 40 CFR 112.6(c).*

***I have completed a review and evaluation of the SPCC Plan for Town of Hamden VOED Building and will/will not amend the Plan as a result.*



1.0 INTRODUCTION

The Oil Pollution Prevention Regulation in 40 Code of Federal Regulations (CFR) Part 112 was developed in order to (1) prevent oil discharges from reaching navigable waterways (defined to include, but not limited to: lakes, rivers, streams, and wetlands) and adjoining shorelines, and (2) to ensure effective response to oil discharges. Required under this rule is the development of a Spill Prevention Control and Countermeasure Plan (SPCC) for applicable owners, users and/or operators of facilities that could possibly discharge oil in harmful quantities into navigable waterways.

On January 14, 2010, the Environmental Protection Agency (EPA) put into effect a final rule amending the SPCC regulations. Under the SPCC requirements, owners or operators of facilities that “drill, produce, gather, store, use, process, refine, transfer, distribute, or consume oil and oil products” must prepare a SPCC if any of the following storage practices apply:

- greater than 1,320 gallons of oil is stored in above-ground containers/tanks, or
- greater than 42,000 gallons of oil is stored in underground containers/tanks provided the underground storage tank (UST) is not subject to the technical requirements of the UST regulations, 40 CFR Part 280 or 281.

Established under the SPCC regulations is a de minimis container size of 55 gallons. Only containers of oil (defined as “oil of any kind or in any form, including, but not limited to... petroleum, fuel, oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil”) with a capacity of 55 gallons or greater are counted in the calculation of the 1,320-gallon threshold. All containers with a storage capacity of less than 55 gallons of oil exempt from the SPCC regulations. A complete copy of the SPCC regulations is included in Appendix A.

Town of Hamden VOED Building is required to prepare, maintain, and follow a SPCC plan since greater than 1,320 gallons of petroleum products are stored above-ground and the discharge of oil could potentially impact the Unnamed Brook from the onsite storm drainage system.

2.0 FACILITY DESCRIPTION

2.1 Facility Operations

The Town of Hamden VOED Building located in Hamden, Connecticut is comprised of a one story sheet metal building. Operations include storage, maintenance and washing of town-owned vehicles and equipment. The Town of Hamden VOED Building's total above-ground oil storage capacity is approximately 3,994 gallons and includes the following containers with capacities at or exceeding 55-gallons:

- (1) 500-gallon waste oil AST (Outside)
- (1) 275-gallon 1540 diesel oil AST (Fire Department Area)
- (2) 275-gallon hydraulic oil ASTs (Oil Storage Room)
- (1) 275-gallon Petro-Canada Supreme 5W-20 Motor oil (Oil Storage Room)
- (1) 275-gallon 1540 motor oil (Oil Storage Room)
- (1) 275-gallon automatic transmission fluid (Oil Storage Room)
- (2) 55-gallon Automatic Transmission oil drums (Oil Storage Room)
- (5) 55-gallon universal tractor fluid drums (Oil Storage Room)
- (2) 55 gallon waste antifreeze drums (potential for some oil) (center of building)
- (2) 55-gallon waste oil filters drum (center & east side of building)
- (2) 55-gallon hydraulic fluid drums (NE corner of building on wood pallet)
- (2) 226-gallon (approx.) hydraulic fluid old lift reservoirs (east wall of building)
- (1) 55-gallon waste oil drum (east side of building)
- (1) 55-gallon 30 weight compressor oil drum (Compressor Room)
- (1) 55-gallon transmission oil drum (Fire Department Area)
- (1) 55-gallon 5W-20 motor oil (Fire Department Area)
- (1) 55-gallon waste oil drum (Fire Department Area)
- (1) 309-gallon (41.25 cu ft) unibin for used speedy-dry (outside)
- Approximately 93 gallons Transformer oil in Transclosure

The EPA has determined that oil-filled motor vehicle tanks or "motive power containers" used solely to fuel the propulsion of a vehicle are not governed by SPCC rules per 40 CFR 112(d)(7). Additionally, not listed above are those containers located on-site that are in storage containers of less than 55-gallons. Although these containers are exempt from the SPCC regulations, any spill or release from these sources should be managed in accordance with this Plan.

With the exception of the oil/water separators, the Town of Hamden VOED Building currently has no underground storage tank[s] on site. Interior floor drains tie into two oil/water separators in series. The first one is an approximate 450-gallon (sand trap) sump in the floor inside the facility. It connects to a larger 1,000-gallon concrete oil/water separator, located outside below the pavement, that reportedly drains to the sanitary sewer and operates per the requirements of the CTDEEP's Vehicle Maintenance General Permit.

The oil/water separators purpose is multi-faceted. They are used partially for the collection of powerwashing water, which is reportedly conducted on an infrequent basis. They also provide secondary containment for potential releases of oil to the facility floor that reach the containment trench. Oil Water Separators used to comply with general secondary containment requirements of

section 112.7(c) and sized secondary containment requirements for bulk storage containers in 112.8(c) are not subject to bulk storage container requirements and do not count toward overall storage capacity at the facility. However, if being used to comply with secondary containment requirements it must (a) be sized to address the most likely oil discharge from any part of the facility and (b) be sized to contain the largest single bulk storage container with sufficient freeboard to contain precipitation.

In order to fulfill (a), the Town of Hamden VOED Building must demonstrate that the oil storage capacity of the two oil/water separators can contain a release from the vehicle fluid rack distribution dispensers (approx. 275 gallons), or provide the dispensers in this area with safeguards to prevent the dispensing of liquid by non-authorized personnel, such as the installation of an inline manual valve supplied with a lock. Only authorized personnel would have a key. The valve would be open and closed as needed throughout the work day. This would help prevent the dispensing of incorrect oil based products and to prevent spills.

In order to fulfill part (b), the Town of Hamden VOED Building must demonstrate that the oil storage capacity of the two oil/water separators can contain 226-gallons of oil (the largest single bulk container without secondary containment at this time), or provide secondary containment for all oil containing drums inside the facility, and have the hydraulic oil reservoirs for the lifts removed.

As a third option, the facility could install a valve that could close off the discharge from the trench to the oil water separators. The trench itself would have to provide enough storage capacity to fulfill (a) and/or (b) above.

A site location map has been provided in Figure 1. The location of each oil storage unit on-site is depicted in Figure 2. A photo log of representative oil storage locations at Town of Hamden VOED Building is included as Appendix G. Please note that Figures 1 and 2 have been provided at the end of the text for convenience to the reader and user of this SPCC Plan.

2.2 Drainage Pathways and Distance to Navigable Waters

The facility is broken up into three drainage areas (Drainage Area DA-1, DA-2, and DA-3). Runoff from DA-1, DA-2 and DA-3 are directed to three regulated outfalls identified as DSN001 through DSN003, which discharge to wooded wetlands south of the facility.

As shown on Figure 2, DA-1 is located in the eastern portion of the facility. Stormwater runoff from this area is collected in a couple of catch basins and perforated Reinforced Concrete Pipe (RCP). This area includes runoff collected from roof drains along eastern half of the building. The catch basins and roof drainage are connected to a manhole which conveys stormwater runoff to a riprap splash pad via a 21-inch RCP pipe (DSN001), which eventually discharges to an unnamed brook. The drainage area to DSN001 includes the following activities:

- A Scrap metal dumpster,
- An Oily waste solids dumpster/container,
- A cardboard dumpster,
- A Waste Oil Above Ground Storage Tank (AST)

- The facility's indoor oil storage loading/unloading area.
- A Vehicle Impoundment Area

DA-2 is located in the center portion of the facility and runoff from this area is collected in roof drains on the western half of the maintenance building. The roof drains are connected to a manhole which historically conveyed stormwater runoff to a riprap splash pad via a 12-inch RCP pipe (DSN002), which eventually discharged to an unnamed brook. The 12- inch RCP pipe was reportedly damaged therefore; this outfall is no longer accessible.

DA-3, which is on the western portion of the Facility, is broken up into three sub drainage areas (DA-3A, 3B, and DA-3C) as shown on Figure 2. The combined area discharges to a drainage swale via a 24-inch RCP Pipe (DSN003).

Runoff from DA-3A is collected by two catch basins located at the entrance to the facility. This drainage area includes a municipal solid waste (MSW) dumpster, facility loading bays, employee parking, and the pump-out area for the 1,000-gallon oil/water separator.

Runoff from DA-3B is collected by a series of interconnected catch basins, which the last catch basin in the system conveys stormwater runoff to a drainage swale via a 12-inch RCP pipe. This drainage swale is located between Shepard Avenue and the facility and flows from north to south where it is intercepted by a catch basin within the swale that is connected to the DA-3A drainage system. This drainage area includes facility loading bays (north and west side of garage), employee and municipal vehicle parking, and a loading dock, located on the north side of the building.

Runoff from DA-3C flows from an off-site area to the north and includes the drainage swale that DA-3B discharges too.

All the outfalls, with the exception of DSN002, receive off-site drainage from adjacent areas to the north. DSN003 also receives runoff from Shepard Avenue.

Facility drainage, based on a visual observation of site contours, is toward the south side of the property. It is estimated, based on a review of the Mount Carmel #80 USGS 7.5 Minute Topographic Quadrangle Map that drainage from the site would flow to an unnamed tributary of Shepard Brook, located approximately 1,000 feet south of the site.

3.0 **RESPONSIBILITIES, NOTIFICATIONS AND REPORTING**

3.1 **Responsibilities**

The duties of the Primary Emergency Coordinator and his/her alternate are to routinely inspect all storage and handling facilities and take corrective action when conditions warrant. In addition, the Primary Emergency Coordinator will participate in, set up and maintain necessary spill emergency procedures, recordkeeping; personnel training, SPCC Plan Reviews and amendments (if required), and reporting requirements.

In the event of an oil release, appropriate staff of Town of Hamden VOED Building shall carry out the procedures outlined herein under the direction of the Primary Emergency Coordinator or his/her alternates(s).

3.2 **Initial Notifications**

In the event of any emergency or occurrence related to the release or threatened release of petroleum products, the following persons shall be notified immediately:

Rank	Name	24-hour phone
Primary	John Pucillo	(203) 996-2548
Alternate	James Lafond	(203) 996-2534

The Primary Emergency Coordinator and his/her Alternate Emergency Coordinator have been chosen based on the following qualifications:

- Is on-site or on call at all times;
- Is familiar with the facility layout;
- Is knowledgeable of the locations and characteristics of the materials handled;
- Is familiar with all operations and activities at the facility;
- Is thoroughly familiar with emergency plans;
- Is knowledgeable of the locations of all records; and
- Has the authority to commit facility resources in the event of an emergency.

The Emergency Coordinators or designated Alternates will then notify the proper off-site authorities about the actual emergency, following their initial action at the site.

Town of Hamden VOED Building staff does not respond to major spills. Those identifying the spill will contact the Emergency Coordinator. If the spill is a small, incidental spill (employees can respond with materials available on site and there is no immediate threat to human health and the environment) trained response personnel will tend to the spill. If the spill is beyond the capacity of site resources, one of the commercial cleanup contractors will be contacted to provide a response.

3.3 Regulatory and Response Notifications for All Spills

The guidelines in this section apply to all spills: petroleum products, chemicals, and/or non-hazardous and hazardous waste.

3.3.1 Connecticut Requirements

The Connecticut Department of Energy and Environmental Protection (CTDEEP) shall be notified immediately of any spill that poses a potential threat to human health or the environment

CTDEEP Emergency Response Unit,
Hartford (24 hours)

Phone: (860) 424-3338

Within 24 hours of the spill, The Town of Hamden VOED personnel are required to report such facts such as:

- the location;
- the quantity and type of substance, material or waste;
- the date and the cause of the incident;
- the name and address of the owner; and
- the name and address of the person making the report and his relationship to the owner.

Note: Unless specifically requested, the CTDEEP does not require a written submission when reporting a spill. A copy of an example Spill Reporting form for internal use can be found in Appendix C.

3.3.2 Spills Threatening to Reach Navigable Waters

In the event that a spill of *oil* in any amount (or enough to cause sheen) threatens to reach navigable waters, the National Response Center in Washington as well as local authorities shall be notified immediately:

Authorities	Phone Numbers
National Response Center (NRC)	(800) 424-8802
EPA Region I	(617) 424-8802
CT DEEP	(860) 424-3338

With any of the above notifications, Town of Hamden VOED Building personnel will be ready to report the following information immediately following the discovery of the event:

- Your name, location, organization, and telephone number;
- Name and address of the party responsible for the incident;
- Date and time of the incident;
- Location of the incident;
- Source and cause of the release or spill;
- Types of material(s) released or spilled;

- Quantity of materials released or spilled;
- Danger or threat posed by the release or spill;
- Number and types of injuries (if any);
- Weather conditions at the incident location;
- Any other information that may help emergency personnel respond to the incident.

Navigable waters of United States are defined in 40 CFR Part 110.1 to include interstate waterways or intrastate waterways including lakes, rivers and streams which may be utilized by interstate travelers for recreational purposes. *Navigable waters* also include lakes, rivers and streams from which fish or shellfish are taken. The complete definition may be found in Section 502(7) of the Federal Water Pollution Control Act. *Navigable waters* for the purpose of Town of Hamden VOED Building’s response plan includes a spill that may enter the storm drainage system and/or may reach the unnamed brook.

3.3.3 Spills Threatening Human Health or the Sewer

In the event the Emergency Coordinator or designated alternate also determines that the release of materials threatens human health outside the facility and evacuation may be necessary, the following additional authorities will be notified immediately:

Authority	Phone Numbers
CTDEEP Emergency Response	(860) 424-3338
Town of Hamden Police Department	911 or (203) 230-4000
Town of Hamden Fire Department	911 or (203) 407-5880
Hospital of Saint Raphael	(203) 789-3000

If the spill has discharged down the drain to local sewer authority, immediately contact:

Authority	Phone Numbers
Greater New Haven Water Pollution Control Authority	203-466-5260

3.3.4 Commercial Clean-Up Contractors

Should a spill contractor be needed, the Town of Hamden VOED Building personnel will contact one of the following contractors:

Contractor	Phone Numbers
Connecticut Tank Removal, Inc	(203) 384-6020
United Industrial Services	(203) 235-3753

The Town of Hamden VOED Building personnel should contact the above contractor and invite a representative to visit the facility in order to become familiarized with the site. This will enable the

contractor to promptly dispatch a well-equipped spill response team to the facility in the event of a spill.

3.4 Federal Reporting

After a spill or release of oil greater than 1,000 gallons or after two spills of oil greater than 42 gallons within any twelve-month period, or if the spill impacted a navigable waterway, the Emergency Coordinator will report the event(s) to the following agency within 60 days.

The Regional Administrator
U.S. Environmental Protection Agency – Region I
5 Post Office Square – Suite 100
Boston, Massachusetts 02109-3912
Phone: (617) 918-1010

The EPA report will include:

- Name of the facility;
- Your name;
- Location of the facility;
- 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 replacement;
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- The cause of the discharge, 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 spill event.

As required by EPA Federal Regulation 40 CFR 112.4(c), a copy of the EPA report will also be submitted to the CTDEEP Emergency Response Section at the following address:

The Connecticut Department of Energy and Environmental Protection
Hazardous Materials Management Unit
Oil and Chemicals Spills Section
79 Elm Street
Hartford, Connecticut 06106-5127
(860) 424-3338

If 1,000 gallons or more of material is spilled to a navigable waterway, or there are two or more reportable spills (to the National Response Center) in a year, the EPA may conduct an inspection of

the site and review this Plan. Following the inspection and review, the EPA may require facility modifications and/or operational changes to minimize the possibility of future spills.

3.5 State Reporting

If the Town of Hamden VOED Building staff has determined that a reportable spill or release of petroleum products (or other virgin or waste chemicals) has occurred, the Emergency Coordinator must contact the CTDEEP within twenty-four (24) hours of the event to the following agency:

Connecticut DEEP
Emergency Response Unit,
Hartford (24 Hours)

Phone: (860) 424-3338

For all spills reported to the CTDEEP, the Town of Hamden VOED Building staff will submit written information in the form of a letter describing the details of the discharge or spill and supporting the adequacy of the response action within 30 days of the discovery of the reportable discharge or spill.

The documentation shall contain one of the following items:

- A statement that the discharge or spill response action has been completed and a description of how the response action was conducted. The statement shall include the initial report information outlined in Section 3.3 of this plan;
- A request for an extension of time to complete the response action, along with the reasons for the request. The request shall also include a projected work schedule outlining the time required to complete the response action. The executive director may grant an extension up to six months from the date the spill or discharge was reported. Unless otherwise notified by the appropriate regional manager or the Emergency Response Team, the Town of Hamden PWG shall proceed according to the terms of the projected work schedule; or
- A statement that the discharge or spill response action has not been completed nor is it expected to be completed within the maximum allowable six month extension. The statement shall explain why completion of the response action is not feasible and include a projected work schedule outlining the remaining tasks to complete the response action. This report will be mailed to:

The Connecticut Department of Energy and Environmental Protection
Hazardous Materials Management Unit
Oil and Chemicals Spills Section
79 Elm Street
Hartford, Connecticut 06106-5127

4.0 **EMERGENCY PROCEDURES**

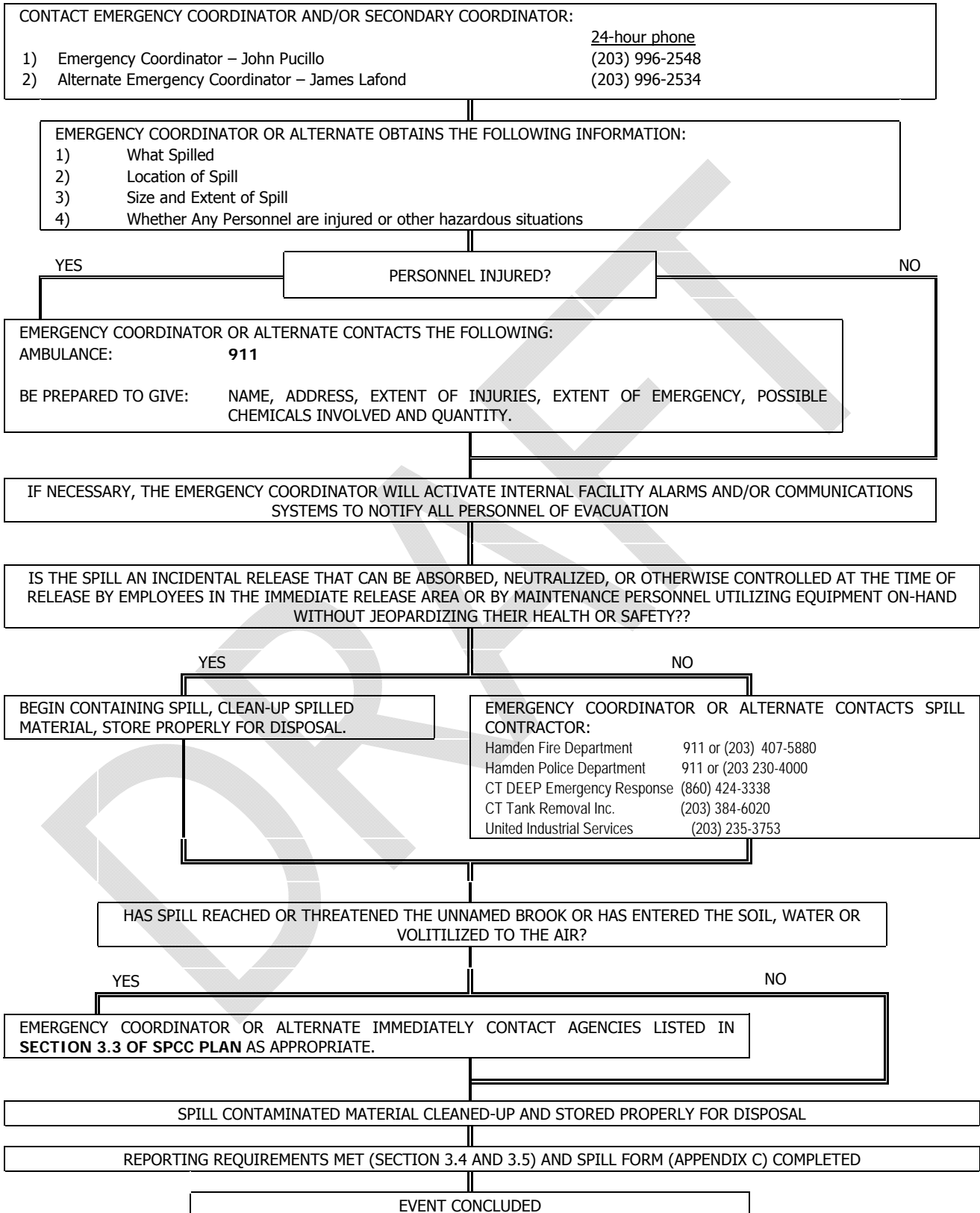
In the event of a spill or release, the emergency procedures outlined in the Emergency Procedures flow chart provided on the following page will be followed. A copy of the emergency procedure flow chart will be in or near the Primary Emergency Coordinator's office, as well as all of the alternates. If any employee discovers a spill or release, it will immediately be reported to the Primary Emergency Coordinator. If the Primary Emergency Coordinator or alternate determines that the spill or release cannot be handled by on-site personnel and/or may be a threat to either health or the environment, the listed professional spill response contractor (previously listed in Section 3.3) will be contacted.

The Primary Emergency Coordinator or Alternate is responsible for determining when a spill event has concluded or is under control sufficiently such that normal activities and personnel presence may be safely resumed.

Only if the spill or release can be safely handled by on-site personnel, the following actions may be conducted:

- While awaiting arrival of the Emergency Coordinator or designated Alternates, personnel shall commence containment activities immediately, if safe to do so, using spill response materials available on site. Containment activities may include up righting a spilled container, closing a valve, protecting a drain, or using spill response material to berm a spilled area.
- Following spill containment, trained personnel may begin absorbing the spilled material with absorbent material provided in the site spill kits.
- Used absorbent material will be collected and containerized for off-site disposal in containers such as 55-gallon drums. All equipment and manpower shall be utilized to remove spilled materials promptly and in a safe manner. All drums used to contain spilled waste will be transported to the waste storage area for eventual off-site disposal by a licensed transporter.

SPILL AND/OR RELEASE FLOW CHART



5.0 PAST SPILL EXPERIENCE

In order to prepare a more complete and accurate plan, significant spills or releases, corrective action taken, and plans for preventing a recurrence have been taken into consideration.

In preparing this plan, no spills having occurred within the past five years were identified.

Any future spills will be documented using the Spill Form in Appendix C.

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6.0 POTENTIAL SPILL PREDICTION AND CONTROLS

6.1 Oil Capacity and Storage

After a review of the Town of Hamden VOED Building campus, it was determined that all petroleum products are stored and managed at the facility within bulk storage and oil filled operational equipment. Provided in Tables 1 and 2, is a summary of the oil capacities and containment and control practices identified at the Town of Hamden VOED Building. At any one time, a total of approximately 3,994 gallons of fuel/oil is stored at the facility. Tables 1 and 2 describe the potential type of failure(s), the estimated amount of material which may be released, the probably flow direction if a spill should occur, and secondary containment measures in each area of concern.

Oil Filled Operational Equipment

Oil filled operational equipment includes any oil storage container in which the oil is present solely to support the function of the apparatus or the device. While oil-filled equipment is not subject to the bulk storage container requirements, it must still meet the requirements for general secondary containment. General secondary containment may include:

- i. Dikes, berms, or retaining walls sufficiently impervious to contain oil;
- ii. Curbing
- iii. Culverting, gutters, or other drainage systems;
- iv. Weirs, booms, or other barriers;
- v. Spill diversion ponds;
- vi. Retention ponds; or
- vii. Sorbent materials.

Table 1 is a description of measures for the avoidance and/or containment of the release of materials from the facility associated with oil filled operational equipment. All oil reservoirs listed in Table 1 are compatible with the oil stored within.

TABLE 1 – OIL FILLED OPERATION EQUIPMENT OIL STORAGE POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY Town of Hamden VOED Building, Hamden, Connecticut					
Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Stormwater Drain	Secondary Containment
TRANSFORMER TRASCLOSURE (total 93 gallons)					
North side of building-3 overhead type transformers	(3) x 31 gal 93 gal total	Electrical Transformer Failure	93	Spill would flow into surrounding grass, nearest CB approx. 10ft away	A
MISCELLAENOUS OIL FILLED OPERATIONAL EQUIPMENT (total 452 gallons)					
Former Hydraulic Lift Reservoirs	(2) 226-gallon (approx.)	Tank failure	226 gallons (approx.)	Inside building-spill would flow to containment trench to O/W Separator	A, B or containment trench

TABLE 1 – OIL FILLED OPERATION EQUIPMENT OIL STORAGE POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY Town of Hamden VOED Building, Hamden, Connecticut					
Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Stormwater Drain	Secondary Containment
Oil/Water Separators*	NA	Spill during pump out of oil	To be verified	Closest storm drain is 60ft to the east, however drainage is to the west	NA
<u>Secondary Containment Legend</u> A To be contained by spill kit absorbent materials. B Spill contained by impervious nature of building's floor and walls C ¹ Sized Secondary containment via double-walled construction C ² Sized Secondary containment via constructed berm C ³ Sized Secondary containment via spill pallet, containment trenches D Electronic Monitoring System E Inadequate containment, see Section 13.0 for implementation schedule					

*Oil/Water separator volume not included in total oil storage

Bulk Fuel Storage

Bulk fuel storage refers to any container (≥55 gallons capacity) used to store oil other than oil filled operational equipment. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. These containers are subject to the more laborious bulk storage container requirements of 40 CFR 112.8 and 40 CFR 112.12 which include but are not limited to sized secondary containment, integrity testing, facility and dike drainage, and discharge avoidance.

Table 2 is a description of measures for the avoidance and/or containment of the release of materials from the facility associated with bulk fuel storage. All containers and drums listed in Table 2 are compatible with the oil stored within. Pipe supports (as applicable) are all designed to minimize abrasion and corrosion and to allow for expansion and contraction. Potential for abrasion and/or corrosion will be inspected monthly to ensure pipe integrity is maintained (see Section 7.0).

TABLE 2 – BULK FUEL STORAGE POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY Town of Hamden VOED Building, Hamden, Connecticut							
Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Storm Drain	Overflow Protection/ Discharge Avoidance	Secondary Containment Type and Capacity	Dike Draining Protocols
ABOVE-GROUND STORAGE TANKS (total 2,150 gallons)							
Waste Oil ConVault AST – outside SE side of building	500	Tank failure	500	Spill would flow to the SE towards CB located 49' away. Closest CB is 26' to the north	Direct vision gauge. A large rectangular funnel/pan is used for adding oil to the tank. VOED personnel present during transfer to Vac Truck to ensure no spills	A, C ¹ Doublewalled Concrete	Secondary containment area is protected from accumulating rainwater. See Section 6.3.2 as necessary
		Spill during transfer	50			A	
		Spill during small container emptying	55				
1540 Diesel Oil AST - Fire Department Area	275	Tank failure	275	Tank located indoors	Tank equipped with direct vision gauge and nozzle on delivery trucks have overfill protection	A, C ² Tank located inside secondary containment berm >110%	Tank is located indoors
		Spill during transfer	27.5		Ensure filling occurs within bermed area		
		Spill during small container filling	27.5				
(2) Hydraulic Oil ASTs – Oil Storage Room	(2) x 275	Tank Failure	275 each (550 total)	Tanks located indoors, however near overhead door, spill could flow to the downgradient CB, 21' away, if door was open	Tanks equipped with overfill whistles and direct vision gauge.	A, C ¹	Tank is located indoors
		Spill during transfer	27.5 each (55 total)				



**TABLE 2 – BULK FUEL STORAGE
 POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY
 Town of Hamden VOED Building, Hamden, Connecticut**

Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Storm Drain	Overflow Protection/ Discharge Avoidance	Secondary Containment Type and Capacity	Dike Draining Protocols
		Pipe failure from pump dispenser system	275 each (550 total)	Spill would enter containment trench (connected to O/W separator) or be contained within the building		Spill would enter containment trench or be contained within the building	
5W-20 Motor Oil AST – Oil Storage Room	275	Tank Failure	275	Tank located indoors, however near overhead door, spill could flow to the downgradient CB, 21' away, if door was open	Tank equipped with overflow whistles and direct vision gauge	A, C ¹	Tank is located indoors
		Spill during transfer	25.5				
		Pipe failure from pump dispenser system	275	Spill would enter containment trench (connected to O/W separator) or be contained within the building		Spill would enter containment trench or be contained within the building	
1540 Motor Oil AST – Oil Storage Room	275	Tank Failure	275	Tank located indoors, however near overhead door, spill could flow to the downgradient CB, 21' away, if door was open	Tank equipped with overflow whistles and direct vision gauge	A, C ¹	Tank is located indoors
		Spill during transfer	25.5				

**TABLE 2 – BULK FUEL STORAGE
 POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY
 Town of Hamden VOED Building, Hamden, Connecticut**

Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Storm Drain	Overflow Protection/ Discharge Avoidance	Secondary Containment Type and Capacity	Dike Draining Protocols
		Pipe failure from pump dispenser system	275	Spill would enter containment trench (connected to O/W separator) or be contained within the building		Spill would enter containment trench or be contained within the building	
Automatic Transmission Fluid AST – Oil Storage Room	275	Tank Failure	275	Tank located indoors, however near overhead door, spill could flow to the downgradient CB, 21' away, if door was open	Tank equipped with overfill whistles and direct vision gauge	A, C ¹	Tank is located indoors
		Spill during transfer	25.5				
		Pipe failure from pump dispenser system	275	Spill would enter containment trench (connected to O/W separator) or be contained within the building		Spill would enter containment trench or be contained within the building	
MISCELLANEOUS DRUM, TOTES AND CONTAINERS (total 1299 gallons)							
(2) Automatic Transmission Oil Drums – Oil Storage Room	(2) x 55	Drum failure	55 each (110 total)	Spill would be contained by containment pallet	Only active drums are open with a spigot attached. Oil is transferred to	A, C ³ Containment pallet	Drum(s) located indoors
		Spill during dispensing	55 each (110 total)				

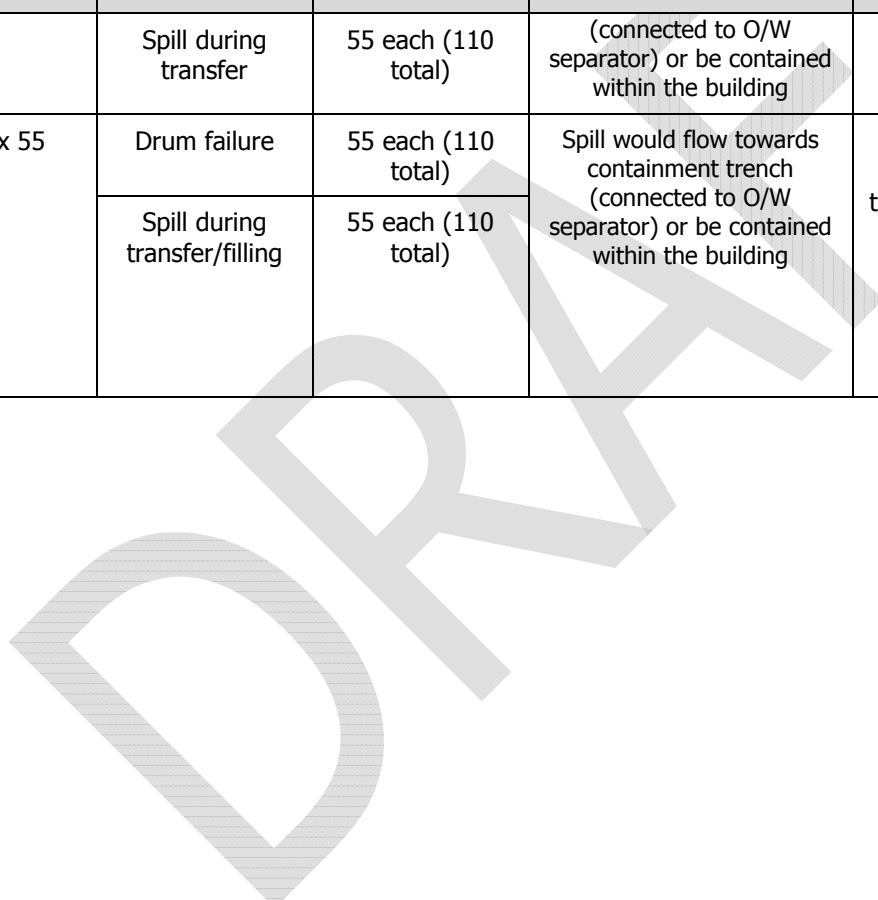


TABLE 2 – BULK FUEL STORAGE POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY Town of Hamden VOED Building, Hamden, Connecticut							
Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Storm Drain	Overflow Protection/ Discharge Avoidance	Secondary Containment Type and Capacity	Dike Draining Protocols
		Spill during transfer	55 (110 total)	Nearest CB is 21' SE from room during unloading	smaller containers in this room over containment pallets.		
(5) Universal Tractor Fluid Drums – Oil Storage Room	(5) x 55	Drum failure	55 each (275 total)	Spill would be contained by containment pallet	Only active drums are open with a spigot attached. Oil is transferred to smaller containers in this room over containment pallets.	A, C ³ Containment pallet	Drum(s) located indoors
		Spill during dispensing	55 each (275 total)				
		Spill during transfer	55 (275 total)	Nearest CB is 21' SE from room during unloading.			
(2) Waste Antifreeze (potential for trace amounts of oil) Drums – Maintenance Area in Building	(2) x 55	Drum failure	55 each (110 total)	Spill would flow towards containment trench (connected to O/W separator) or be contained within the building	Only active drums are open with a large funnel attached.	A, B or containment trench	Drum(s) located indoors
		Spill during transfer/filling	55 (110 total)				
(2) Waste Oil Filter Drums – Maintenance Area in Building	(2) x 55	Drum failure	<55 each (<110 total)	Spill would flow towards containment trench (connected to O/W separator) or be contained within the building	Drums shall be covered prior to transfer to shipping area	A, B or containment trench	Drum(s) located indoors
		Spill during transfer	<55 each (<110 total)				
(2) Hydraulic Fluid Drums –	(2) x 55	Drum failure	55 each (110 total)	Spill would flow towards containment trench	Drums shall remain closed and on	A, B or containment	Drum(s) located indoors



**TABLE 2 – BULK FUEL STORAGE
 POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY
 Town of Hamden VOED Building, Hamden, Connecticut**

Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Storm Drain	Overflow Protection/ Discharge Avoidance	Secondary Containment Type and Capacity	Dike Draining Protocols
Maintenance Area in Building		Spill during transfer	55 each (110 total)	(connected to O/W separator) or be contained within the building	wood pallets until use	trench	
(2) Waste Oil Drums – Maintenance & Fire Dept. Areas in Building	(2) x 55	Drum failure	55 each (110 total)	Spill would flow towards containment trench (connected to O/W separator) or be contained within the building	Drums shall be covered prior to transfer to shipping area	A, B or containment trench	Drum(s) located indoors
		Spill during transfer/filling	55 each (110 total)				



**TABLE 2 – BULK FUEL STORAGE
 POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY
 Town of Hamden VOED Building, Hamden, Connecticut**

Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Storm Drain	Overflow Protection/ Discharge Avoidance	Secondary Containment Type and Capacity	Dike Draining Protocols
Compressor Oil Drum - Compressor Room	55	Drum Failure	55	Spill would be contained within walls of Compressor Room	Drum Reportedly not used- recommend removing from Site	A,B	Drum located indoors
		Spill during Transfer	55				
Unibin-Used/Oily Speedy Dry	309 gallon (41.25 cu ft)	Container Failure	309	Spill would be primarily in solid form and stationary	Employees can visually see product level	A, Container is liquid tight	Container is covered
		Spill During Transfer	309				
Transmission Oil Drum – Fire Dept. Area	55	Drum Failure	55	On spill containment pallet	Oil dispensing to occur from drum on containment pallet	A, B, C ³	Drum located indoors
		Spill during dispensing	55				
		Spill during Transfer	55	Spill would flow towards containment trench (connected to O/W separator) or be contained within the building			
5W-20 Motor Oil Drum – Fire Dept. Area	55	Drum Failure	55	On spill containment pallet	Oil dispensing to occur from drum on containment pallet	A, B, C ³	Drum located indoors
		Spill during dispensing	55				
		Spill during Transfer	55	Spill would flow towards containment trench (connected to O/W separator) or be contained within the building			



TABLE 2 – BULK FUEL STORAGE POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY Town of Hamden VOED Building, Hamden, Connecticut							
Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction & Distance to Closest Storm Drain	Overflow Protection/ Discharge Avoidance	Secondary Containment Type and Capacity	Dike Draining Protocols
<p><u>Secondary Containment Legend</u></p> <p>A To be contained by spill kit absorbent materials.</p> <p>B Spill contained by impervious nature of building's floor and walls</p> <p>C¹ Sized Secondary containment via double-walled construction</p> <p>C² Sized Secondary containment via constructed berm</p> <p>C³ Sized Secondary containment via spill pallet</p> <p>D Electronic Monitoring System</p> <p>E Inadequate containment, see Section 13.0 for implementation schedule</p> <p>F Either remove these Drums from the facility or place them on Spill Containment Pallets to prevent spillage in accordance with the Implementation Schedule.</p>							

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6.2 Containment and Control Measures

The petroleum storage locations identified within Tables 1 and 2 are further described below in regards to its methods of containment

1. *Electrical Transformer Reservoirs*

Three overhead type transformers are located inside the facility owned steel cabinet called a transclosure. Each transformer has 31 gallons of dielectric fluid for a total of 93 gallons. The transclosure is situated on a concrete pad. Being an oil filled operational equipment as outlined in Section 6.1, preventive methods implemented for transformers will include having sorbent material readily available as outlined in Section 7.0 and conducting periodic inspections as outlined in Section 7.1.

2. *Miscellaneous Oil-Filled Operational Equipment Reservoirs*

Two old hydraulic lift reservoirs are located inside the facility with oil capacities greater than 55 gallons. Being oil filled operational equipment as outlined in Section 6.1, preventive methods implemented for transformers will include having sorbent material readily available as outlined in Section 7.0 and conducting periodic inspections as outlined in Section 7.1. The building walls and containment trench in the floor function as containment in the event of a tank rupture.

3. *Above-Ground Storage Tanks*

- The 500-gallon Waste Oil AST consists of a double-walled construction and is situated on a concrete pad. The tank is equipped with an overfill protection valve and a product level gauge. The fill ports should be locked unless in active use and keys should only be signed out to authorized personnel. If a spill or release occurs during transfer, the spill will be contained by the fact that storm drains in the vicinity will be protected during transfers as outlined in Section 6.3.1., and the adjacent spill kit. Town of Hamden VOED Building personnel oversee all oil transfers.
- One 275-gallon single walled 1540 diesel oil AST is located in the garage area and is used by the Fire Department. The tank is situated within a secondary containment concrete block berm and is equipped with a direct vision gauge. In addition the delivery truck is equipped with an overfill protection nozzle. The approximate dimensions of the bermed area were 7.25' x 4.5' x 2', providing more than 110% secondary containment capacity.
- Five 275-gallon double walled ASTs are located in the Oil Storage Room used by the Town of Hamden VOED Building personnel. The tanks are equipped with direct vision gauges, spill/overfill protection whistles and locked fill ports. The Town of Hamden VOED Building employees oversee all oil transfers and a spill kit is located in the vicinity of the tanks. In addition, these ASTs are connected to hoses/piping that distribute the motor and hydraulic oils. In the event of a failure of one of these hoses, the spill would be contained by the walls of the building or the containment trench in the floor.

4. *Miscellaneous Drums, Totes and Containers*

The majority of the various bulk storage oil containing drums located throughout the facility are stored on plastic spill containment pallets and all are stored inside the building. A release from any of these drums would be contained within the secondary containment and/or the walls of the building or the containment trench in the floor. The containment trench is connected to the two oil-water separators, and the sanitary sewer. Dispensing from drums occurs over secondary containment pallets. Spill kits and speedy dry are located throughout the facility. Funnels on used oil drums shall be fitted with covers.

6.3 General Practices

6.3.1 Oil Transfer Procedures

a. *AST Loading/Unloading Areas*

The loading of Waste Oil and the unloading of various oils in the ASTs located inside the facility occurs via tanker trucks. Approximately once a year the accumulated oil is pumped from the two oil/water separators by vacuum tanker trucks for off-site disposal. In accordance with 40 CFR Part 112.7 (c), procedures utilized by the facility to prevent or control an oil spill in transfer areas include:

Before the Loading/Unloading Begins

- The vendor chocks the wheels of the delivery truck and visually checks all hoses for leaks and wet spots;
- Facility personnel ensure that all applicable drainage valves are locked in the closed position and check the tank for any signs of a leak;
- Facility personnel will ensure that internal and external valves on the receiving tank are open along with the pressure relief valves.
- Facility personnel will confirm the type of oil and the quantity of which will be transferred;
- Facility personnel will visually confirm the ability of the tank to accept the agreed upon quantity;
- Facility personnel will ensure spill control equipment is readily available, place pigs/socks/berms in appropriate locations to contain a small spill from the truck, and place a spill mat over nearby stormwater catch basins.

Loading/Unloading Process

- Facility personnel and the vendor will remain at the tank/transfer area for the entire transfer process;
- The vendor will shut off the delivery truck engine prior to making connections. Do not restart the engine during the loading/unloading process unless the truck engine is used to operate a pump;
- The vendor will ensure all valves are in proper positions and begin the transfer;
- The vendor will monitor the flow meters to determine the rate of flow;

- Facility personnel will monitor the tank volume to prevent overflow; and
- Facility personnel and vendor will periodically inspect all systems hoses and connections.

After the Loading/Unloading Process

- Facility personnel will visually check the volume delivered;
- The vendor will ensure all valves are in proper positions and disconnect the hose;
- Facility personnel and vendor will check the transfer area for any signs of a spill;
- Facility personnel will return the spill control equipment to its storage location; and
- The vendor will prepare to depart.

A delivery and pump/out log should be used to ensure supervision of the entire unloading operation and minimize any releases. The following information should be recorded on the logs:

- Date and time of delivery (start, end);
- Quantity in tank;
- Quantity delivered;
- Inspection comments; and
- Employee present.

Mobile on-site vehicle fueling "*wet-hosing*" operations are not specifically exempt from the secondary containment requirements of the 40 CFR Part 112.7(c), and therefore are subject to the facility oil transfer procedures discussed above. Mobile on-site vehicle fueling does not occur at this facility.

b. Oil Drum Transfer Areas

In accordance with 40 CFR Part 112.7 (c), procedures utilized by the facility to prevent or control an oil spill during drum transfer operation of various virgin oils, waste antifreeze or waste oil filters include:

- The vendor chocks the wheels of the waste hauler truck;
- Spill mats are placed over nearby catchbasins;
- Facility personnel and the vendor ensure that the drums are in good condition and there are no signs of drips, leaks or spills prior to loading into the truck;
- Facility personnel will confirm the quantity of drums which will be transferred; and
- Facility personnel will ensure spill control equipment is readily available.
- Facility personnel and the vendor will be present for the entire transfer process;
- Facility personnel and the vendor will ensure no damage has been done to the drums and there are no signs of leaks or spills;
- The vendor will prepare to depart.

c. Waste Oil Transfer to the AST

In accordance with 40 CFR Part 112.7 (c), procedures utilized by the facility to prevent or control an oil spill during waste oil transfer from drums to waste oil tank include:

- Spill mats are placed over nearby catchbasins;
- Facility personnel and the vendor ensure that the drums are in good condition and there are no signs of drips, leaks or spills prior to moving drums to the door near the AST;
- Drums will stay inside the facility during transfer;
- Facility personnel will ensure spill control equipment is readily available;
- Facility personnel will check the site gauge to ensure there is adequate capacity for the waste oil;
- Facility personnel will unlock the AST fill port and ensure not clogged;
- Facility personnel will inspect the explosion proof pump and associated hoses to ensure in good working condition with no potential for leaks;
- The pump and hose will be connected and facility personnel will ensure secured tightly;
- During transfer, the site gauge will be monitored
- Facility personnel will disconnect the hose in a manner as to not create spills to the ground;
- The fill port will be closed and locked when transfer is complete;
- Facility personnel will be present for the entire transfer process; and
- Facility personnel will ensure there are no signs of leaks or spills.

6.3.2 Dike Drainage

The facility does not maintain any diked ASTs which are subject to storm water collection and drainage, however if the facility maintains any diked areas requiring drainage in the future, the outlined procedure below will be used.

- Trained Town of Hamden VOED Building personnel visually inspect the contained rainwater for evidence of an oily sheen or film, color, sludge or deposits.
- If there is any evidence of an oily sheen or film, discoloration, or oily sludge or deposits, Town of Hamden VOED Building personnel will **NOT** drain the accumulated liquid to the ground but will contact an outside contractor to vacuum the contained fuel/oil/water mixture and dispose in accordance with the resulting waste stream determination.
- If the containment area is drained to the ground, Town of Hamden VOED Building personnel will monitor the entire draining event (i.e. not leave that dike or containment area while the dike is being drained). Additionally, all drain lines will be securely closed and locked after the event.

6.3.3 Recovered Clean-up Material Disposal

Town of Hamden VOED Building personnel will typically use absorbent mats, absorbent socks, and granular loose absorbent material to contain any minor spills or releases.

Waste Absorbent material will be cleaned-up and disposed of using the following procedure:

1. Contain the clean-up material into a dedicated storage container as soon as a spill is absorbed, but no later than the end of the day in which the spill occurred.
2. The dedicated drum will be labeled with the words "Oil Absorbent Material" or other words as appropriate.
3. Conduct a waste stream determination to determine if material is hazardous or non-hazardous waste, document results with facility waste profiles.
4. The used clean-up material will then be disposed of properly based on the outcome of the waste stream determination and profile.
5. Shipping records for used materials that is transported off-site will be maintained in Town of Hamden VOED Building's waste files.

6.3.4 Vehicle Traffic

Loading/unloading of oil or drums would occur at the rear of the facility, or on the north side of the building, both areas away from vehicle traffic. The 500-gallon ConVault AST is encased in concrete, protected by bollards and located behind the facility, outside the path of vehicle traffic. The transformer is located on the north end of the facility up on a curbed, grassed area, outside the path of vehicle traffic.

6.3.5 Drum and Container Handling

The following precautions will be taken during drum and container handling:

- Keep the container closed at all times, except when adding or removing oil; and
- Use appropriate transport devices such as a dolly, a specifically designed handcart, forklift with appropriate attachments, etc.
- Mobile drums that are used throughout the facility for used oil should be placed in a plastic secondary containment overpack bucket/drum.

7.0 INSPECTIONS

7.1 Visual Inspections

On a monthly basis, Town of Hamden VOED Building personnel will inspect its oil storage areas. A written record of the inspections will be kept. An SPCC Inspection Log (Appendix D), will be completed and signed by the inspector as part of each monthly inspection.

At a minimum, Town of Hamden VOED Building personnel will inspect all tanks for deterioration (e.g. corrosion), leaks, tank supports and foundations, and condition of secondary containment, where applicable. In addition to the tank, the associated above-ground piping will be inspected for damage, including the condition of the piping system including all valves, flanges, etc. Containers and drums will be checked for proper labeling and signs of deterioration or leakage. Any sign of rust, corrosion, or leakage constitutes an unsatisfactory condition requiring appropriate preventive maintenance. Any container or drum label deficiencies will be corrected immediately. The containment areas will also be inspected for cracks or other forms of deterioration.

Town of Hamden VOED Building personnel will also verify the adequate supply of spill containment and abatement materials. See Section 8.0 for a detailed list of spill abatement equipment and materials that will be maintained on-site.

All inspection logs will be made a part of the SPCC and maintained on-site for at least three (3) years. Any problems will be reported to the Emergency Coordinator and corrected as soon as possible.

7.2 Integrity Testing

Each container with a capacity of 55 gallons or greater (e.g. 55-gallon drum, tank, etc.), which is not an oil-filled electrical, operating, or manufacturing equipment, is considered to be a bulk storage container and is therefore regulated under 40 CFR 112.8(c)(6). Each above-ground bulk storage container will be tested for integrity on a regular schedule and when material repairs are made.

The Steel Tank Institute (STI) provides industry standards regarding integrity testing guidance for shop-built tanks and portable containers. The guidance categorizes ASTs from 1-3 based on a spill or release risk level, with 1 being the lowest risk and 3 being the highest risk for a spill or release. For instance, a double-walled, shop-built tank in contact with the ground that maintains a Continuous Release Detection Method (CRDM) and is less than 5,000 gallons is considered a Category 1 tank. Category 1 tanks are recommended by STI to have periodic inspections conducted by the owner or designated employee.

The integrity testing requirement does not apply to oil-filled electrical operating and manufacturing equipment, 55-gallon drums which are not reused on-site, or USTs subject to 40 CFR 280. Re-use of portable containers is subject to STI SP001 standards. Under STI SP001, portable containers must either discontinue to be used for oil storage or be DOT tested and recertified per the following schedule: plastic portable container – every 7 years; steel portable container – every 12 years; stainless steel portable container – every 17 years. For 55-gallon drums and 275-gallon

plastic totes, it is more practical to replace the drums/totes than to conduct any type of integrity testing beyond visual inspection. Any sign of compromised integrity visually observed should be remedied by replacing the questionable drum. While awaiting replacement, the drum/tote should be placed within a secondary containment over-size drums or bermed area.

The regulations allow deviations from this requirement where “you provide equivalent environmental protection by some means of spill prevention, control, or countermeasure” 40 CFR Part 112.7(a)(2). The life expectancy of a typical shop built bulk storage container is approximately twenty years, after which it is past its nominal useful life. Although a rigorous testing program could justify leaving tanks past their life expectancy in-place, the cost of such testing is likely to be more than the expense of replacing the tank.

For the steel tank, several standards exist for integrity testing, including the following:

- API Standard 653 – “Tank Inspection, Repair, Alteration, and Reconstruction.”
- API Recommended Practice 575 – “Inspection of Atmospheric and Low Pressure Tanks”.
- STI Standard SP001-00 – “Standard for Inspection of In-Service Shop Fabricated Aboveground Tanks for Storage of Combustible and Flammable Liquids.”

Only certified inspectors should be used for the integrity testing.

ConVault® tanks are unique among above-ground tanks in that they are double walled, equipped with a polyethylene liner within the interstitial space and have a 4-6” concrete encasement that forms the secondary containment double wall. In addition, the interstitial space is equipped with a leak detection system that would indicate any failure of the primary inner steel tank. The concrete encasement is resistant to ballistic and vehicle impact as well as fire. All of these features provide environmental protection equivalent to the integrity testing techniques listed in 40 CFR 112.8(c)(6).

Based on these criteria, Town of Hamden VOED Building will perform integrity testing on the following bulk storage tanks as outlined below:

TABLE 3 – INTEGRITY TESTING STEEL TANK INSTITUTE AST CATEGORIES				
Location	Description	Installation Date	AST Category¹	Integrity Testing Implementation
Outside E of building	500-gallon Used Oil ConVault AST	1997	1	Visual monthly and annual inspection by facility personnel (as per checklist in Appendix D)*
Inside Garage-Fire Dept. Area	275-gallon 1540 diesel oil AST	2005	1	Visual monthly and annual inspection by facility personnel (as per checklist in Appendix D)

¹ 2011, Steel Tank Institute, Standard for the Inspection of Above-ground Storage Tanks, 5th Ed., Steel Tank Institute.

TABLE 3 – INTEGRITY TESTING STEEL TANK INSTITUTE AST CATEGORIES				
Location	Description	Installation Date	AST Category¹	Integrity Testing Implementation
Oil Storage Room	(5) 275-gallon various Petroleum Oil ASTs	2006	1	Visual monthly and annual inspection by facility personnel (as per checklist in Appendix D)
Inside Garage Area	Re-used 55 gallon drums	Varies	NA	Visual monthly inspections (as per checklist in Appendix D). Dispose of drums prior to end of useful life @10 years

STI Category Explanation¹

- | | |
|---|---|
| 1 | Secondary Containment and Continuous Release Detection Method (CRDM) |
| 2 | Secondary Containment |
| 3 | No secondary containment or Release Prevention Barrier (RPB), or one or the other |

*In addition, ConVault requires some items be checked on a weekly basis as part of the ConVault warranty. See Appendix I for ConVault specific maintenance checklists.

The routine integrity testing procedure will consist of monthly visual inspection by designated facility personnel. Visual inspections consist of evaluating each of the above listed tanks and drum storage areas in accordance with the Inspection Logs, provided in **Appendix D**. Observations are to be recorded on the Inspection Logs during the time of visual inspection, and a record of the logs made a part of this SPCC Plan.

Non-destructive integrity evaluation is not specifically required on the 55-gallon storage drums that will not be reused. Most storage drums are elevated on plastic spill pallets, and have all sides visible. Any drum leaks would be readily detected by facility personnel before they can cause a discharge to navigable waters or adjoining shorelines. However, per this SPCC Plan the facility is required to conduct monthly visual inspections of the various drums storage areas as outlined in the Monthly SPCC Plan Inspection Logs.

8.0 SPILL ABATEMENT EQUIPMENT AND MATERIALS

Town of Hamden VOED Building personnel will maintain spill control equipment for all of the oil storage areas on-site. The following materials, or their equivalents, will be provided:

- Absorbent material (i.e. Speedy-dry, pads and booms)
- Shovel/broom
- "Attack Pack" Spill Kit hanging from ConVault AST
- Temporary disposal bag or drum

The Public Works VOED Building personnel should procure catch basin mats in accordance with the implementation schedule at the end of this report. The catch basin mats are to be used when there is a potential for a spill in the vicinity of a catch basin, (i.e. during loading/unloading).

Spill control equipment will be stored in locations which are accessible to all employees and located near oil storage locations. Town of Hamden VOED Building personnel will inspect the spill control equipment periodically to ensure that they are maintained in working order and spill abatement materials are replenished as needed.

The Town of Hamden VOED Building will maintain spill control equipment in the following areas on campus:

- On ConVault AST
- In Oil Storage Room
- In Compressor Room
- Near Waste Antifreeze and Used Oil Filter Drums
- Inside door on east side of the facility

Commercial clean-up contractors who could be contacted by the Town of Hamden VOED Building if their assistance is needed are as follows:

Firm	Phone Number
Connecticut Tank Removal, Inc	(203) 384-6020
United Industrial Services	(203) 235-3753

9.0 SECURITY

Town of Hamden VOED Building will maintain the following security measures in place at the facility:

1. The Town of Hamden VOED Building is locked when it is not in operation. Locking the building prevents access to the oil storage containers located in the maintenance garage.
2. The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.
3. Motion sensor lighting is mounted on the exterior walls of the building. The lighting at the facility is adequate to assist in the observation or identification of any possible security breaches or spills. The lighting at the facility is also adequate to assist in the prevention of discharges due to acts of vandalism.

10.0 TRAINING

EPA Regulation 40 CFR Part 112.7(f) requires that annual training be provided for all “oil handling” personnel to assure an understanding of the SPCC Plan. Personnel at the Town of Hamden VOED Building whose duties involve the daily management, use, inspection or maintenance of oil storage, transfer, process or treatment equipment will be trained in the contents of this SPCC Plan. This training will highlight those portions of the SPCC as they relate to facility operations, including, but not limited to, known discharges or failures, malfunctioning components, and recently developed precautionary measures. The training will include the following:

- Operation and Maintenance of equipment to prevent the discharge of oil;
- Discharge procedure protocols;
- Applicable pollution control laws, rules and regulations;
- General facility operations;
- Contents of the facility SPCC plan; and
- Review of any spills or releases in the last year.

All current and new hires of “oil handling” personnel shall be trained by the Town of Hamden VOED Building prior to beginning work. This training includes a detailed and complete review of the facility’s SPCC Plan and its standard operating procedures. Annual refreshers of this training will be given to all facility employees. Sign-in sheets (example in Appendix F) for each training session may be maintained in Appendix H of this SPCC.

The Emergency Coordinator, also the Designated Person Responsible for spill prevention at the facility (page ii), will approve the SPCC and certify that he/she is thoroughly familiar with the Plan. As such, the Emergency Coordinator is qualified to conduct training of oil handling personnel or may opt to designate to another qualified individual thoroughly familiar with this plan to conduct such training.

11.0 FACILITY RESPONSE PLAN

The Town of Hamden VOED Building is not required to prepare and submit a Facility Response Plan defined under 40 CFR Part 112.20 for the following reasons:

1. This facility does not transfer oil over water to or from vessels with a total oil facility storage capacity greater than or equal to 42,000 gallons.
2. The facility does not have a total oil storage capacity greater than or equal to 1,000,000 gallons.

Since the Town of Hamden VOED Building does not meet the substantial harm criteria, the Town of Hamden VOED Building must only complete a Certification of Harm Determination Form and maintain the form as part of their SPCC Plan. The Certification form, to be completed, is included in Appendix E.

12.0 SPCC PLAN AMENDMENT

12.1 Facility Modifications

This SPCC Plan, under 40 CFR 112.5, will be amended whenever there is a change in facility design, construction, operation or maintenance which material affects the facility's potential for a discharge of oil to navigable waters of the United States or adjoining shorelines. These plan amendments will be prepared within six (6) months and fully implemented as soon as possible, but not later than six (6) months following the plan's amendment. Emergency response issues will be reviewed when:

1. The plan fails during an emergency;
2. It becomes evident that emergency contacts are not equipped to handle situations; or
3. There are personnel changes (i.e. emergency coordinator or alternate).

12.2 US EPA Requirements

The Environmental Protection Agency Regional Administrator may require amendments to the Plan whenever the facility has: 1) discharged more than 1,000 U.S. gallons into or upon the navigable waters in the U.S.; 2) discharged oil in quantities larger than 42 gallons, as defined in 40 CFR Part 112.1(b), into or upon the navigable waters of the U.S. in two spill events, occurring within any twelve month period.

12.3 5-Year Revisions

Regardless of facility changes, the SPCC Plan will also undergo a complete review and evaluation at least once every five (5) years. As a result of this review, the plan will be updated within six (6) months to include more effective prevention and control technology, if such technology is identified as having the ability to significantly reduce the likelihood of spills, and has been field proven at the time of the review. All technical amendments to this plan shall be certified by a Professional Engineer in accordance with 40 CFR 112.3(d). Non-technical amendments include changes to phone numbers or names. These amendments will be made as the change occurs, initialed, and dated by Town of Hamden VOED Building personnel.

All 5-year SPCC plan reviews will be documented at their completion in the SPCC Plan Review Log on page iii at the beginning of this plan. The person responsible for the 5-year review will attest to the certification statement with their signature, include the date of the review and indicate whether a revision to the plan is necessary, as well as date of the revision, if applicable.

13.0 IMPLEMENTATION SCHEDULE

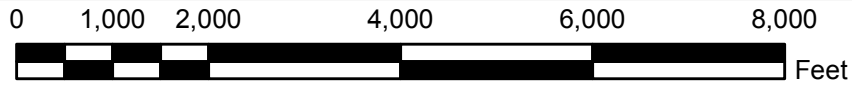
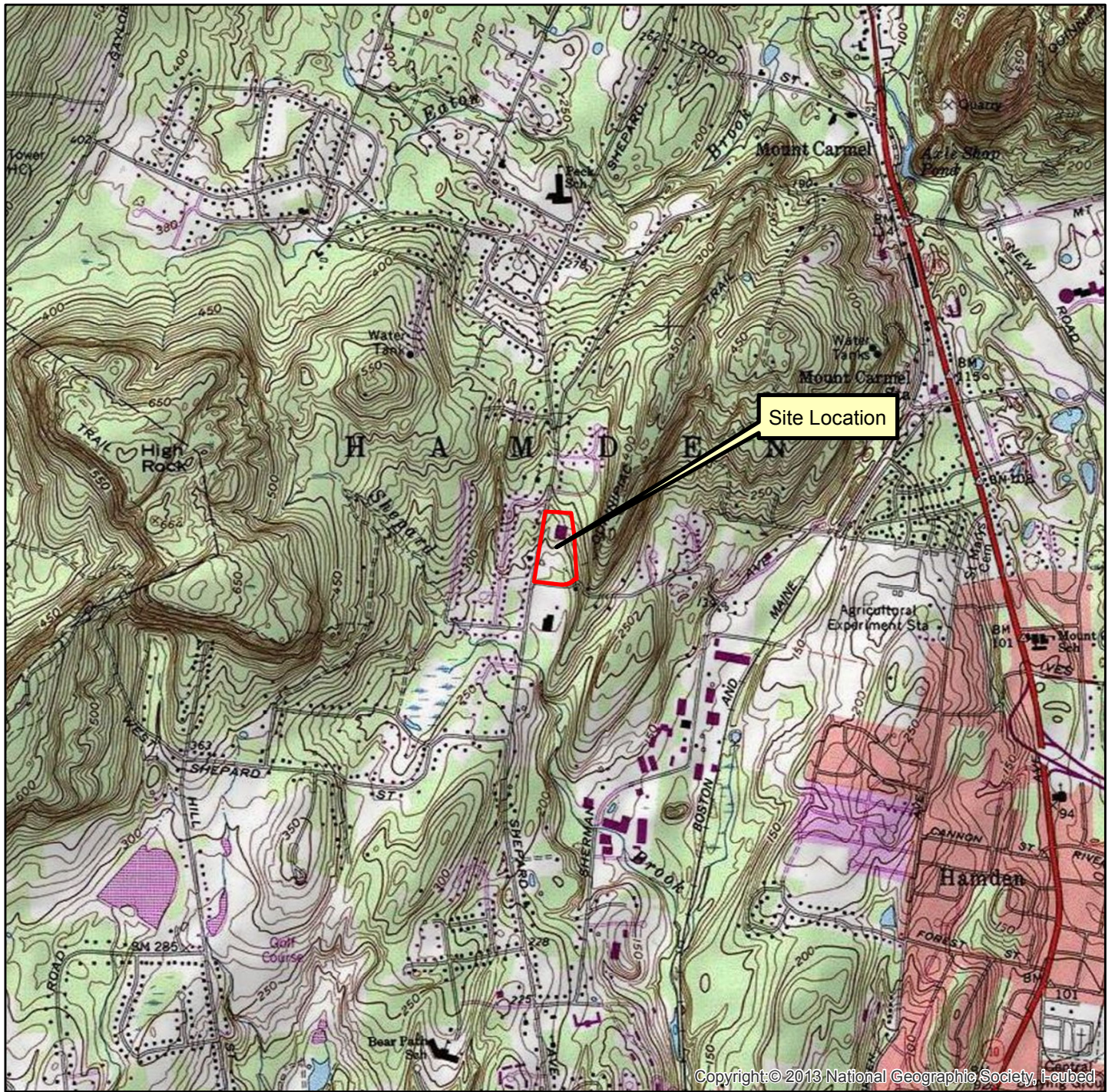
The Town of Hamden VOED Building will fully implement this SPCC Plan and be compliant with the SPCC regulations by following the implementation schedule presented below. Town of Hamden VOED Building will complete the far right column at the time that each item is implemented. Failure to implement these actions may negate the PE signature associated with this SPCC Plan.

Action Item Number	Action Item	Corresponding Section in SPCC Plan	Proposed Implementation Date	Actual Implementation Date and Signature
1	Post the spill response flow chart in the following offices and associated spill kits: (<i>names of emergency coordinators or alternates</i>)	4.0	September 2018	
2	Ensure appropriate employees are familiar with and following oil transfer procedures, including covering storm drains during transfers to the ASTs	6.3.1	September 2018	
3	Ensure that all oil-filled drums are stored on secondary containment pallets. Mobil waste oil drums should be placed in large plastic overpack drums.	6.2	September 2018	
4	Conduct monthly inspections	7.1 and Appendix D	On-going	
5	Initiate integrity testing schedule	7.2 and Appendix D	On-going	
6	Maintain spill response material on site in appropriate locations. Spill kit hanging on Waste Oil AST needs to be replaced	8.0	September 2018	
7	Conduct training of all oil handling personnel in the contents of this plan	10.0	Upon certification of SPCC and annually thereafter	
8	Amend the Plan within 6 months within changes to facility design, construction, operation, or maintenance that affect the potential for oil discharge to a navigable waterway.	12.1	AS needed	
9	Perform a complete review and evaluation of the SPCC Plan at least once every five years.	12.3	March 2022	
10	Remove any accumulated oil and/or debris in spill pallet or other containment areas as well as fill containment sumps.	6	As needed	
11	Ensure the starter control on the 275-gallon diesel AST filling pump is locked in the "off" position and accessible only to authorized personnel when not in use. Ensure that filling of smaller containers occurs over the bermed containment area.	9.0	September 2018	
12	Purchase Catch basin mats	8.0	September 2018	

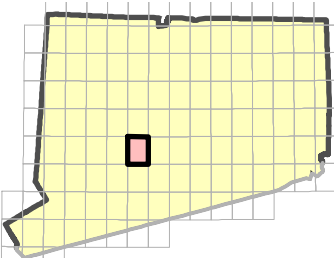
Action Item Number	Action Item	Corresponding Section in SPCC Plan	Proposed Implementation Date	Actual Implementation Date and Signature
13	Replace re-used drums every 12 years	7.2	As needed	
14	Vehicle exhaust covers in the floor need to be replaced.		September 2018	
15	Properly dispose of oil and remove old hydraulic lift reservoir boxes if no longer in use, or provide/verify secondary containment. If empty, label as indicated in implementation item #18		September 2018	
16	Verify oil/water separator construction and/or complete implementation measures for secondary containment listed in the report	2.1	September 2018	
17	Provide lids/covers to funnels on-top of used oil drums	6.2	September 2018	
18	Empty tanks must be labelled as "Permanently Closed" with a closure date. All piping shall be disconnected and fill & vent ports closed and locked. If the emergency generator on-site becomes active and the tank filled with oil, the generator and tank will need to be added to this plan.		September 2018	

DRAFT

FIGURES



1 inch = 2,000 feet



USGS Quadrangle data Copyright:© 2009
 National Geographic Society, i-cubedxt
 USGS Name: Mount Carmel, Connecticut
 USGS Quad ID: 41072-D8
 Date Rev: 1982
 Date Pub: 1985

Figure 1
Site Location Map
Town of Hamden
Voed Building
1225 Shepard Avenue
Hamden, Connecticut
HRP# HAM4063.WM
Scale 1" = 2,000'

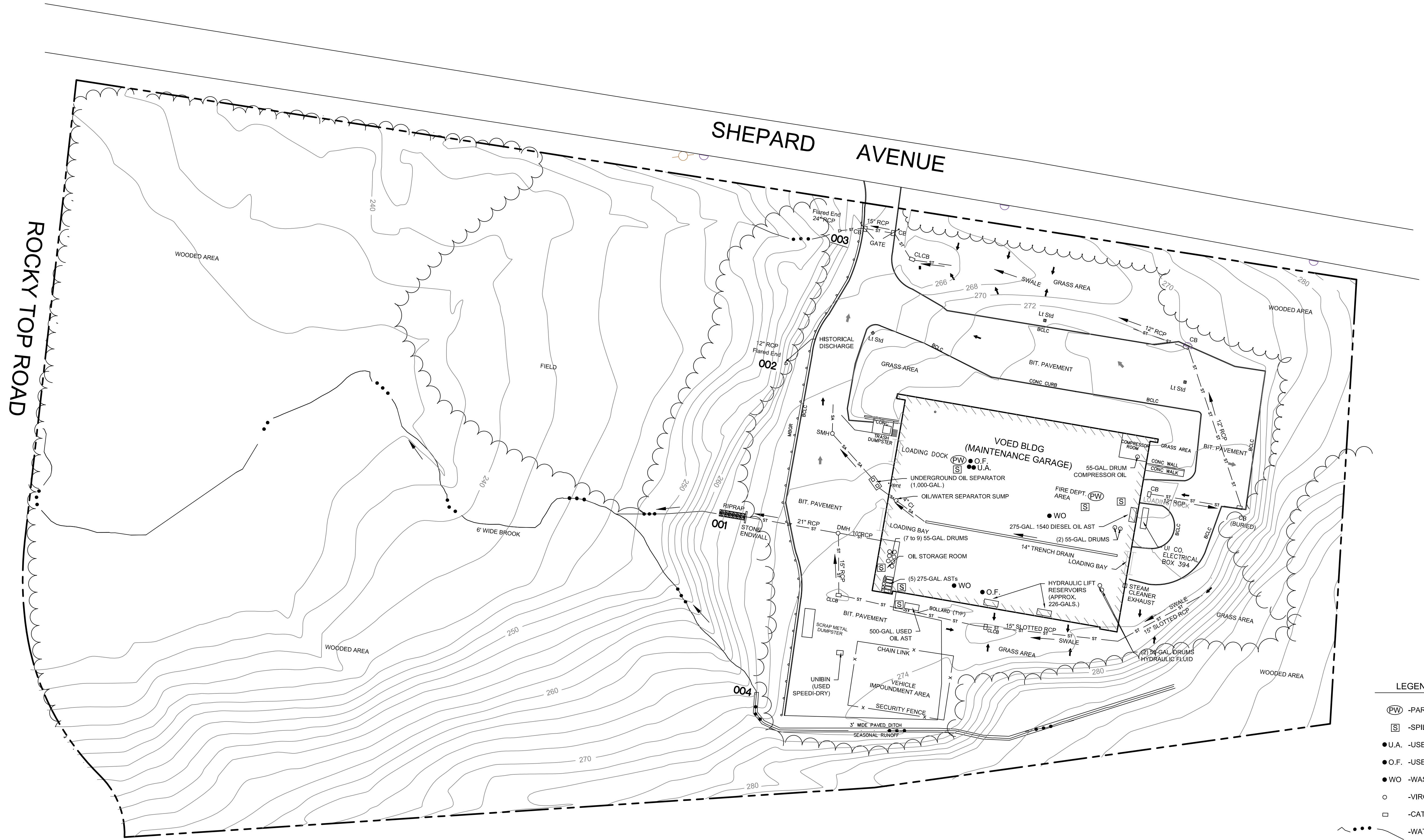


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ROCKY TOP ROAD

SHEPARD AVENUE



LEGEND

- PARTS WASHER
- SPILL KIT
- USED ANTIFREEZE DRUM
- USED OIL FILTER DRUM
- WASTE OIL DRUM
- VIRGIN OIL CONTAINING DRUM
- CATCH BASIN
- WATERCOURSE
- PROPERTY BOUNDARY
- SANITARY SEWER
- STORM SEWER
- SURFACE WATER FLOW DIRECTION
- PIPE FLOW DIRECTION

MAP REFERENCE:
 "FIGURE 1, SITE PLAN, VOED BUILDING-MAINTENANCE GARAGE, 1255 SHEPARD AVENUE,
 HAMDEN, CONNECTICUT" BY TOWN OF HAMDEN ENGINEERING DEPARTMENT; DATED
 05/01/03, LAST REVISED 08/16/10; DRAWING NO. 10016; JOB NO. 10016; PROJ. VOED
 BUILDING.

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NORTH

REVISIONS		
NO.	DATE	DESCRIPTION

DESIGNED: CMA	SCALE: 1" = 40'
DRAWN: BOB	ISSUE DATE: 11/09/2017
REVIEWED: CMA	PROJECT NUMBER: HAM4063.WM
APPROVED: VPS	SHEET SIZE: 24"x36"

PUBLIC WORKS MAINTENANCE GARAGE
 (VOED BUILDING)
 1255 SHEPARD AVENUE
 HAMDEN, CONNECTICUT

FACILITY DIAGRAM

DRAFT

SHEET NO.
Figure 2

DRAWING(S) NAME: TOWN OF HAMDEN'S TOWN ENGINEERING DEPARTMENT, VOED BUILDING MAINTENANCE GARAGE, 1255 SHEPARD AVENUE, HAMDEN, CONNECTICUT; DATE: 11/09/2017; DRAWING NO.: HAM4063.WM; PROJECT NO.: 10016; JOB NO.: 10016; OPERATOR: JHR

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APPENDIX A

SPCC Regulations

APPENDIX B
SPCC Regulatory Cross Reference

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Town of Hamden VOED Building SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.3(d)	Except as provided in § 112.6, a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part.	i	NA
112.3(d)(1)	By means of this certification the Professional Engineer attests:	i	NA
112.3(d)(1)(i)	That he is familiar with the requirements of this part:	i	NA
112.3(d)(1)(ii)	That he or his agent has visited and examined the facility:	i	NA
112.3(d)(1)(iii)	That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;	i	NA
112.3(d)(1)(iv)	That procedures for required inspections and testing have been established; and	i	NA
112.3(d)(1)(v)	That the Plan is adequate for the facility.	i	NA
112.3(d)(1)(vi)	That, if applicable, for a produced water container subject to § 112.9(c)(6), any procedure to minimize the amount of free-phase oil is designed to reduce the accumulation of free-phase oil and the procedures and frequency for required inspections, maintenance and testing have been established and are described in the Plan.	NA	NA
112.4(a)	Notwithstanding compliance with § 112.3, whenever your facility has discharged more than 1,000 U.S. gallons of oil in a single discharge as described in § 112.1(b), or discharged more than 42 U.S. gallons of oil in each of two discharges as described in § 112.1(b), occurring within any twelve month period, submit the following information to the Regional Administrator within 60 days from the time the facility becomes subject of this section:	§3.4	NA
112.4(a)(1)	Name of the facility;	§3.4	NA
112.4(a)(2)	Your name;	§3.4	NA
112.4(a)(3)	Location of the facility;	§3.4	NA
112.4(a)(4)	Maximum storage or handling capacity of the facility and normal daily throughput;	§3.4	NA
112.4(a)(5)	Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;	§3.4	NA
112.4(a)(6)	An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;	§3.4	NA
112.4(a)(7)	The cause of such discharge as described in § 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;	§3.4	NA
112.4(a)(8)	An additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and	§3.4	NA
112.4(a)(9)	Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.	§3.4	NA
112.4(d)	Amendment of Spill Prevention Control and Countermeasure Plan (SPCC) by Regional Administrator.	--	--
112.5(a)	SPCC amendments due to changes in facility design.	iii	NA
112.5(b)	Perform a review and evaluation of SPCC Plan at least once every five years. The owner/operator must document completion of the review and evaluation, and must sign a statement as to whether he will amend the SPCC Plan. The following will suffice: "I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result.	iii	NA
112.5(c)	Obtain Professional Engineers certification for any technical amendments in accordance with 11-2.3(d).	iii	NA
112.7(a)(1)	Include a discussion of your facility's conformance with the requirements listed in 40 CFR 112.7.	--	--
112.7(a)(2)	Comply with all applicable requirements listed in this part. Except as provided in § 112.6, your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.9(d)(3), 112.10(c), 112.12(c)(2), and 112.12(c)(11), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraph (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan, following the procedures in § 112.4(d) and (e).	§6.3.1	✓

Town of Hamden VOED Building SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.7(a)(3)	Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each fixed oil storage container and the storage area where mobile or portable containers are located. The facility diagram must identify the location of and mark as "exempt" underground tanks that are otherwise exempted from the requirements of this part under § 112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes, including intra-facility gathering lines that are otherwise exempted from the requirements of this part under § 112.1(d)(11). You must also address in your Plan:	Figures 1 and 2, Table 1	✓
112.7(a)(3)(i)	The type of oil in each fixed container and its storage capacity. For mobile or portable containers, either provide the type of oil and storage capacity for each container or provide an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities	Table 1	✓
112.7(a)(3)(ii)	(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.);	§6	✓
112.7(a)(3)(iii)	(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge.	§6	✓
112.7(a)(3)(iv)	(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);	§3	✓
112.7(a)(3)(v)	(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and	§6.3.3	✓
112.7(a)(3)(vi)	(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in case of discharge as described in § 112.1(b).	§3 & 4	✓
112.7(a)(4)	Unless you have submitted a response plan under 40 CFR 112.20, provide information and procedures in your SPCC Plan to enable a person reporting a discharge to relate information on the exact address or location and phone number of the facility...	§3 & 4	✓
112.7(a)(5)	Unless you have submitted a response plan under 40 CFR 112.20, organize portions of the SPCC Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency and include appropriate supporting materials as appendices.	§3 & 4	✓
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 a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.	Table 1	✓
112.7(c)	Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in § 112.1(b), except as provided in paragraph (k) of this section for qualified oil-filled operational equipment, and except as provided in § 112.9(d)(3) for flowlines and intra-facility gathering lines at an oil production facility. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design. At a minimum, you must use one of the following prevention systems or its equivalent:	§6	✓
112.7(c)(1)	For onshore facilities: (i) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (ii) Curbing or drip pans; (iii) Sumps and collection systems; (iv) Culverting, gutters, or other drainage systems; (v) Weirs, booms, or other barriers; (vi) Spill diversion ponds; (vii) Retention ponds; or (viii) Sorbent materials.	§6	✓
112.7(c)(2)	For offshore facilities: (i) Curbing or drip pans; or (ii) Sumps and collection systems.	NA	NA

Town of Hamden VOED Building SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.7(d)	When installation of structures or equipment, as outlined in 112.7(c) and (h)(1) and 40 CFR 112.8(c)(2), (c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2) and 112.14(c) is not practicable, clearly explain 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, unless you have submitted a response plan under 40 CFR 112.20 provide the following in your SPCC Plan: 1. Provide an oil spill contingency plan described in 40 CFR 109; and 2. Provide a written commitment of manpower, equipment, and materials to control and remove harmful quantity of oil discharged.	§6.2 §13	✓
112.7(e)	Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer developed for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.	§7	✓
112.7(f)	Personnel, training, and discharge prevention procedures	--	--
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, rule, and regulations; general facility operations; and, the contents of the facility SPCC Plan.	§10	✓
112.7(f)(2)	Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.	§10	✓
112.7(f)(3)	Schedule and conduct discharge prevention briefings for your oil handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in § 112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.	§10	✓
112.7(g)	Security (excluding oil production facilities). Describe in your Plan how you 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.	§9	✓
112.7(h)	Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).	--	--
112.7(h)(1)	Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading/unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.	§6	✓
112.7(h)(2)	Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.	§6	✓
112.7(h)(3)	Prior to filling and department of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.	§6	✓
112.7(i)	If a field-constructed above-ground container undergoes a repair, alteration, reconstruction or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container of risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.	7.0	✓
112.7(j)	In addition to the minimal prevention standards listed under this section, include in your Plan 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.	NA	✓
112.8(b),	Facility Drainage (for onshore facilities, except oil production)	--	--
112.8 (b)(1)	Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.	6.3.2	✓

Town of Hamden VOED Building SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.8 (b)(2)	Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.	6.3.2	✓
112.8 (b)(3)	Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.	6.3	✓
112.8 (b)(4)	If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge retain oil in the facility.	6.3	✓
112.8 (b)(5)	Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in § 112.1(b) in case there is an equipment failure or human error at the facility.	NA	✓
112.8 (c)	Bulk Storage Containers (for onshore facilities, except oil production)	--	--
112.8 (c)(1)	Bulk storage containers. (1) 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.	6.1	✓
112.8 (c)(2)	Construct all bulk storage tank installations (except mobile refuelers and other non-transportation-related tank 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 alternative 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.	§6	✓
112.8 (c)(3)	Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you: (i) Normally keep the bypass valve sealed closed. (ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in § 112.1(b). (iii) Open the bypass valve and reseal it following drainage under responsible supervision; and (iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§ 122.41 (j)(2) and 122.41 (m)(3).	6.3.2	✓
112.8 (c)(4)	Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.	NA	✓
112.8(c)(5)	Do not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.	NA	✓
112.8(c)(6)	Test or inspect each above-ground container for integrity 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 satisfy the recordkeeping requirements of this paragraph.	7.3	✓

Town of Hamden VOED Building SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
112.8(c)(7)	Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.	NA	✓
112.8(c)(8)	Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices: (i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities, an audible air vent may suffice. (ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level. (iii) Direct communication between tank gauger and pumping station. (iv) Fast response system for determining liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers. (v) You must regularly test liquid level sensing devices to ensure proper operation.	Table 1 and §6	✓
112.8(c)(9)	Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in § 112.1(b).	NA	✓
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. You must promptly remove any accumulations of oil in diked areas.	§4 §6	✓
112.8(c)(11)	Position or locate mobile or portable oil storage containers to prevent a discharge as described in § 112.1(b). 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.	§6	✓
112.8(d)(1)	Facility Transfer Operations, Pumping, and Facility Process (onshore facilities, except oil production)	--	--
112.8(d)(1)	Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.	NA	✓
112.8(d)(2)	Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.	NA	✓
112.8(d)(3)	Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.	§6	✓
112.8(d)(4)	Regularly inspect all above-ground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.	§7	✓
112.8(d)(5)	Warn all vehicles entering the facility to be sure that no vehicle will endanger above-ground piping or other oil transfer operations.	§6.3.4	✓

Town of Hamden VOED Building SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	Description	Facility SPCC Plan	Visually Confirmed in Field
Appendix C to Part 112	<p>Appendix C to Part 112 – Substantial Harm Criteria</p> <p>Section 2.1 A non-transportation-related facility with a total oil storage capacity greater than or equal to 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA.</p> <p>Section 2.2 Any facility with a total oil storage capacity greater than or equal to 1 million gallons without secondary containment sufficiently large to contain the capacity of the largest above-ground oil storage tank within each area plus sufficient freeboard to allow for precipitation must submit a response plan to the EPA. Secondary containment structures that meet the standard of good engineering practice for the purposes of this part include berms, dikes, retaining walls, curbing, culverts, gutters, or other drainage systems.</p> <p>Section 2.3 A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility could cause injury (as defined by 40 CFR 112.2) to fish and wildlife sensitive environments, see Appendices I, II, and III to DOC/NOAA’s “Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments” (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan. Facility owners or operators must determine the distance at which an oil spill could cause the appropriate formula presented in Attachment C-III to this appendix or a comparable formula.</p> <p>Section 2.4 A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2(c).</p>	Appendix E	✓

The following sections of the SPCC Rules do not apply to the facility:

- 112.9 SPCC Plan requirements for onshore oil production facilities.
- 112.10 SPCC Plan requirements for onshore oil drilling and work over facilities.
- 112.11 SPCC Plan requirements for offshore oil drilling, production, or work over facilities.
- 112.12 SPCC Plan requirements for animal, vegetable, & seed oils.

APPENDIX C
Spill Reporting Form

REPORT OF PETROLEUM DISCHARGE, SPILLAGE, OR RELEASE

When did the incident occur? Date _____ Time _____

Where did the incident occur? _____

How did the incident occur? _____

What and how much spilled? Is there a reportable quantity (RQ) associated with the material and was that RQ exceeded? (reference the List of Lists)

Describe path of spill and any affected water bodies or areas of the environment. If fully contained, described how the spill was contained to prevent a release.

Under whose control was the product at the time of the incident? Please give their name, mailing address and telephone number (if not part of Town of Hamden Public Works (VOED) Building).

List agencies that were notified as a result of this spill or note "NA" if reporting not required per Section 3.3 of SPCC Plan:

Date	Time	Person Making Notification	Agency Notified	Notes From Conversation/Notification

What actions are being taken, or are proposed, to prevent reoccurrence of an incident of this type?

Were there any injuries as a result of this incident? If so, list the names of exposed individuals, their addresses, phone numbers, and describe their injuries.

What is the appropriate advice regarding medical attention necessary for exposed individuals?

Are there any known or anticipated health risks, acute or chronic, associated with the release of this chemical or medical advice that should be communicated?

What waste was generated as a result of clean-up activities and how was it disposed (provide waste classification and name of waste vendor)

I hereby affirm that the foregoing statement is true to the best of my knowledge.

Signature Title Date

Print Name Telephone Number

Street Address/P.O. Box City/Town State Zip

This form may be reproduced or computerized as long as it contains all of the information requested and is on an 8-1/2" x 11" white paper, black type format. For serious incidents the questions may be answered in a narrative format which must include the preparer's affidavit.



APPENDIX D

Inspection Logs

MONTHLY SPCC PLAN INSPECTION LOG

Town of Hamden VOED Building, Hamden, Connecticut

Inspection Date: _____

Inspector Name/Title: _____

Inspection Time: _____

Signature: _____

OIL-FILLED OPERATIONAL EQUIPMENT

Location / Description	Free of Leaks or Spills		Units maintained in Good Condition (no corrosion, sturdy supports and foundations)		Problems Identified	Corrective Actions Taken & Date
	Acceptable	Unacceptable	Acceptable	Unacceptable		
Transformers						
North side of building						
Equipment						
Hydraulic Oil Lift Reservoirs- East side of building						

MONTHLY SPCC PLAN INSPECTION LOG

Town of Hamden VOED Building, Hamden, Connecticut

Inspection Date: _____

Inspector Name/Title: _____

Inspection Time: _____

Signature: _____

BULK FUEL STORAGE CONTAINERS

Tank Location/Description	Secondary Containment Maintained (complete dike draining log as necessary)		Fill and Drain Valves Securely Locked		Free of Leaks or Spills (check for presence of liquid in interstice)		Containers and piping in Good Condition (no corrosion, sturdy supports and foundations)		Level Indicator Functional/Overflow Protection		Problems Identified (enter work order as necessary)	Corrective Actions Taken & Date
	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable		

ABOVE-GROUND STORAGE TANKS AND DRUMS

ConVault Waste Oil AST- outside east wall of building												
275-gallon 1540 diesel oil AST-Fire Dept. Area												
(5) 275 gallon fuel oil ASTs – Lube Room												
(7) 55-gallon drums – Oil Storage Room												



MONTHLY SPCC PLAN INSPECTION LOG

Town of Hamden VOED Building, Hamden, Connecticut

Inspection Date: _____

Inspector Name/Title: _____

Inspection Time: _____

Signature: _____

BULK FUEL STORAGE CONTAINERS

Tank Location/Description	Secondary Containment Maintained (complete dike draining log as necessary)		Fill and Drain Valves Securely Locked		Free of Leaks or Spills (check for presence of liquid in interstice)		Containers and piping in Good Condition (no corrosion, sturdy supports and foundations)		Level Indicator Functional/Overflow Protection		Problems Identified (enter work order as necessary)	Corrective Actions Taken & Date
	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable	Acceptable	Unacceptable		
(2) 55-gallon drums waste antifreeze- Maintenance Area												
(2) 55-gallon drums of waste oil- Maintenance & Fire Dept. Area												
(2) 55-gallon drums of used oil filters- Maintenance Area												
(2) 55-gallon drums of hydraulic fluid – Maintenance Area												
41.25 cu ft Used speedy dry Unibin												



ANNUAL INTEGRITY INSPECTION LOG

Town of Hamden VOED Building, Hamden, Connecticut

Inspection Date: _____

Inspector's Name/Title: _____

Inspection Time: _____

Signature: _____

Container ID	Containment structure in satisfactory condition?	Drainage pipes/valves within containment fit for continued service.	Evidence of tank settlement or foundation washout	Cracking or spalling of foundation	Tank supports in satisfactory condition	Water able to drain away from tank	Grounding strap secured and in good condition	Evidence of paint failure	Any damage evident to the tank shell?	Flanged connection bolts tight and fully engaged with no sign of wear or corrosion	Standing water on tank	Vents free of obstructions	Emergency vent operable? Lift as required	Insulation damaged or missing	Are there noticeable areas of moisture on the insulation	Mold on insulation	Is the insulation sufficiently protected from water intrusion	Has the tank liquid level sensing device been tested to ensure proper operation	Does the tank liquid level sensing device operate as required	Are overfill prevention devices in proper working condition	Are tank grounding lines in good condition	Is electrical wiring for control boxes/lights in good condition	Comments		
500-gallon Used Oil ConVault AST																									
275-gallon 1540 diesel oil AST																									
275-gal Fuel Oil AST-1																									
275-gal Fuel Oil AST-2																									
275-gal Fuel Oil AST-3																									
275-gal Fuel Oil AST-4																									
275-gal Fuel Oil AST-5																									



DIKE DRAINING LOG

Town of Hamden VOED Building
Hamden, Connecticut

Date	Dike or Secondary Containment Location	Name of VOED Personnel Making Assessment	Visual Indication of Oily Sheen or Film? (yes/no)*	Visual Indication of Discoloration? (yes/no)*	Dike Drained to Ground or Pumped & Hauled by Contractor?	If Drained to Ground**		If Pumped & Hauled, Indicate Name of Contractor Used
						Start and End Time	Return Drain Valve to Closed & Locked Position	

*If answer "yes" to any of the questions, the contents of the dike or secondary containment area must be pumped and hauled off site

**If contents are drained to the ground, VOED personnel must be present during the entire draining activity, ensuring all drain valves are properly closed and locked after the draining event.



APPENDIX E
Certification of the Applicability of the
Substantial Harm Criteria Checklist

CERTIFICATION FOR FACILITIES THAT DO NOT POSE SUBSTANTIAL HARM

Facility Name: Town of Hamden VOED Building

Facility Address: 1255 Shepard Avenue, Hamden, Connecticut

- | | <u>YES</u> | <u>NO</u> |
|--|------------|-----------|
| 1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfers of oil to or from vessels? | | X |
| 2. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility without secondary containment for each above-ground storage area sufficiently large to contain the capacity of the largest above-ground storage tank within the storage area? | | X |
| 3. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula ¹ considered acceptable by the RA) such that a discharge from the facility could cause injury to an environmentally sensitive area as defined in Appendix D? | | X |
| 4. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula ¹ considered acceptable by the RA) such that a discharge from the facility would shut down a public drinking water intake ² ? | | X |
| 5. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and within the past 5 years, has the facility experienced a reportable spill in any amount greater than or equal to 10,000 gallons? | | X |

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

John Pucillo
Name (please type or print)

Superintendent of Vehicle Maintenance
Title (please type or print)

Signature

Date

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

² For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).



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APPENDIX F

Training Roster

SPCC Plan Training Roster Town of Hamden VOED Building Hamden, Connecticut		
Date:	Training Conducted By:	
Employee Name	Type of Training (Circle One)	Employee Signature
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
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	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	

By signing this form, each employee acknowledges that he/she has received SPCC Plan training and has an understanding of all material presented, including his/her responsibilities with regard to spill prevention and response at Town of Hamden Public Works (VOED) Building. Completed Training Rosters may be maintained in Appendix F of the SPCC Plan.



APPENDIX G
Photo Log of Oil Storage Locations

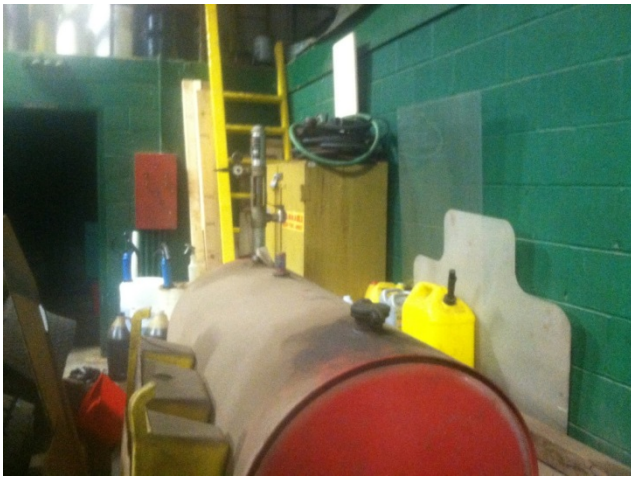


Photo Description: 275-gallon 1540 diesel oil AST (Fire Department Area)



Photo Description: 55-gallon drums in secondary containment in Oil Storage Room



Photo Description: 275-gallon double walled AST in Oil Storage Room



Photo Description: 500-gallon ConVault AST for Waste Oil

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APPENDIX H

SPCC Plan Records

APPENDIX I
ConVault Onsite Integrity
Testing Procedures



Above Ground Fuel Storage Solutions

Onsite Integrity Testing Procedures

Onsite Inspection & Testing Recommendations
to Meet Requirements of EPA SPCC Regulations

Release Date: January 31, 2014

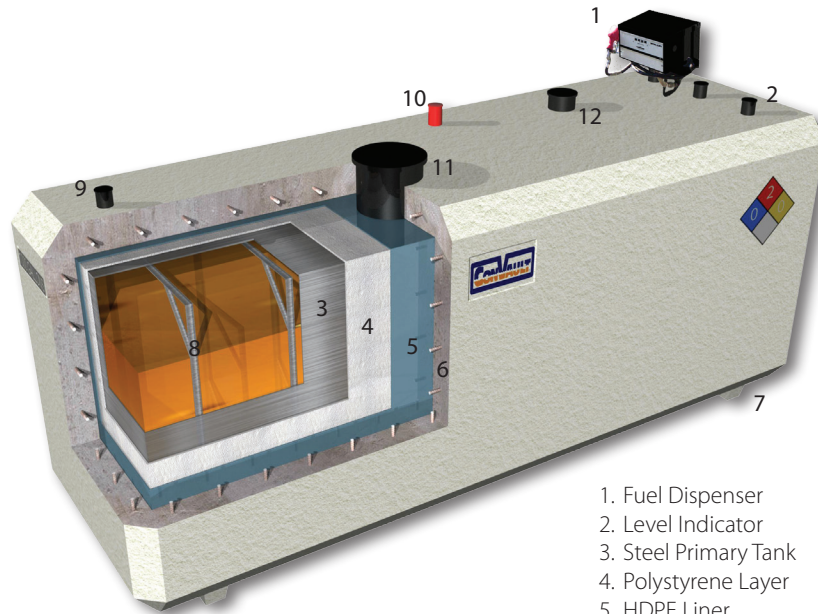
The ConVault System

ConVault is an above ground, fuel and oil storage system manufactured for the purpose of above ground storage. The purpose of this testing procedure document is to aid ConVault owners and engineers in complying with the requirements of the Spill Prevention Control and Containment regulations for integrity testing or inspection as found at 40 CFR 112.8(c)(6) in effect as of January 14, 2010.

The ConVault system includes:

1. **Primary containment:** Inner shop fabricated steel tanks built in accordance with UL 142 Standard. The tank is pressure tested for 24 to 48 hours after fabrication process, again pressure tested during the precasting process, and also prior to shipment of the tank.
2. **Secondary containment:** Consists of a high density polyethylene (HDPE) liner. This secondary containment is vacuum tested prior to shipment of the tank.
3. **Encasement** inner steel tank and the HDPE liner are encased on all sides in 6" thick reinforced concrete. The entire system is elevated upon 4" to 6" high integral concrete legs.

The ConVault above ground fuel storage system is manufactured and tested in accordance with the UL 2085 Standard.



- | | |
|------------------------|--------------------------|
| 1. Fuel Dispenser | 7. Support Legs |
| 2. Level Indicator | 8. Internal Bracing |
| 3. Steel Primary Tank | 9. Atmospheric Vent |
| 4. Polystyrene Layer | 10. Leak Detector Tube |
| 5. HDPE Liner | 11. Overfill Containment |
| 6. Reinforced Concrete | 12. Emergency Vent |

ConVault is thus a three layered containment system; Primary steel tank, secondary HDPE liner and exterior concrete layer acting as a dam or dike. The integrity of each layer will be addressed in the following steps.

Note regarding Steel Tank Institute Standard Inspection Guidelines STI SP001: *STI SP001 requirements are not prepared or issued with inspection criteria that are readily applicable to other AST manufacturers especially to the concrete tanks. The STI SP001 should make a notation to say: Inquire with the manufacturer of the tank before utilizing SP001 to inspect your ConVault tank. Some portions of STI SP001 are applicable to the inspection of ConVault, such as inspection frequency. A copy of the STI SP001 Standard can be found at:*

www.steeltank.com/Publications/STISPFASStore/tabid/487/Default.aspx

In no case should a pressure test be performed on the secondary containment. Serious damage to the tank system may result from pressure testing.

Refer to manufacturer's drawings and specifications to confirm the configuration of your tank. If you do not have drawings and specifications please contact the supplier or, manufacturer or call 1-888-965-3227.

- *Testing of ConVault tanks may be completed by qualified personnel following this testing methodology.
If you require assistance sourcing a qualified testing professional please call 1-800-965-3227 or visit www.convault.com.*
- *Testing should proceed only after reviewing all previous test records and any documentation detailing modifications, repairs, and visible or known damage to the tank.*
- *ConVault tank systems feature a nameplate which will provide the Underwriters Laboratory listing serial number. Include this number in the documentation of inspections.*
- *This testing procedure will not apply or may not be adequate if:*
 - *The ConVault has been moved from its original location;*
 - *The ConVault has sustained known or apparent trauma or impact;*
 - *Products incompatible with the inner steel tank have been put into the ConVault.*

Test Protocol

1. Examine the area under and around the ConVault (pavement, drip pan, soil) for signs of movement or settlement that could lead to system performance problems.
2. Examine the area under and around the ConVault for signs of spills and if any are found, document the location relative to the ConVault tank.
3. Examine the exterior (sides and bottom) of the ConVault noting any cracks and/or damage to the concrete outer layer.
4. During the inspection of the ConVault exterior pay particular attention to any signs of fuel or oil leaks that may manifest as staining on the exterior of the concrete or dirt, dust or soil that may adhere to spilled fuel or oil. Document the location and nature of any signs of fuel or oil on the exterior (sides and bottom).
5. Fuel or oil spills on the side of a ConVault emanating from the top of the tank will be addressed in later sections of this document.
6. If fuel or oil is found in specific areas of the side or bottom of the ConVault the owner/user should be notified immediately.
 - i. Inquire as to the time frame the owner/user first noticed the spill.
 - ii. Note whether any fuel or oil has accumulated on the surface under the ConVault which can be specifically related to the location of fuel or oil present on the exterior (side and bottom). If any fuel or oil is noted on the surface under the ConVault, the owner/user should be notified immediately and the owner/user should take immediate steps to notify any appropriate governing authorities.

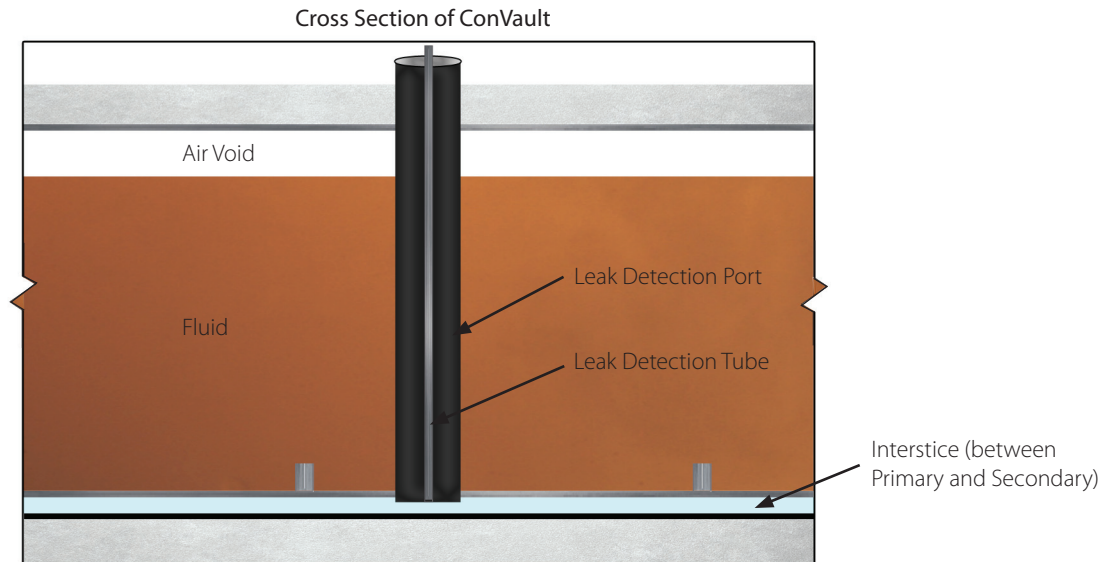
If no evidence of leakage is noted on the exterior of the concrete containment layer then the inspection report indicate so.

7. Examine the top of the ConVault. Note: Examination of the top of the ConVault may involve persons walking on top of the tank and appropriate safety precautions should be implemented to insure the safety of the inspector from falls or injury related to tripping upon hardware. If appropriate a second person should be utilized to assist.
8. While inspecting the top of the tank, first locate and note the location, configuration, condition and types of any plumbing, meters and dispensing equipment.
 - i. Minor fuel spillage on top of the ConVault is not uncommon and may make it difficult to determine the actual source of leaks. Any leaks directly related to the plumbing, meters, dispensing equipment or other hardware used to load or dispense fuel should be noted. Rust or other deterioration should also be noted.
 - ii. Closely inspect the interfaces between the steel connections protruding from concrete. Note any areas that should be resealed to prevent the introduction of rain water into the system.
 - a. Consult with the tank manufacturer or call 1-800-965-3227 for recommendations.
 - iii. Note the condition of the concrete surface. The surface should be relatively clean and smooth without cracks, holes or other deteriorations. A functioning layer of sealant (waterproof) paint should be present across the entire surface of the concrete top.
 - a. Use only recommended products to re-coat the top of the ConVault after thoroughly cleaning with bio-degreaser and light pressure cleaning.

Test Protocol (cont.)

9. Inspection of the primary steel tank

- i. At this point the inspector should locate and note the leak detection port.
- ii. The integrity of the inner steel primary tank is accomplished by checking for fluid between the steel tank and the HDPE liner. See below.



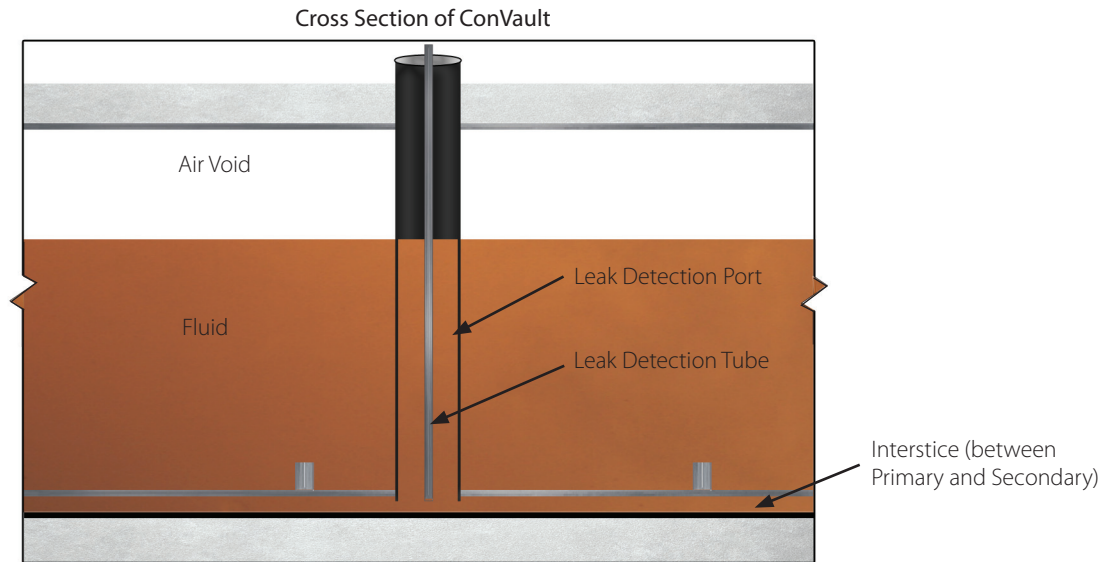
Case: Steel tank is uncompromised

Result: Fuel remains safely stored in tank

The inspector should obtain a clean wood or plastic inspection (non-pointed) rod of sufficient length to reach the full depth of the inner steel tank. With the inspection port cap opened, insert the rod to the bottom of the tube.

- iii. Withdraw the inspection rod and visually examine it.
 - a. If the rod is dry and there is no liquid present then the primary steel tank is not leaking and the ConVault is suitable for continued use .
See next page if the rod is wet.

Test Protocol (cont.)



Case: Steel tank has been breached

Result: Fuel is trapped by liner and is easily detected with probe

- b. If the rod is wet then the inspector must determine the nature of the liquid, water or fuel.
 1. If the liquid on the inspection rod is water then rainwater has entered the system due to inspection port cap being left off or water has entered the system due to a gap between the concrete outer layer and plumbing on top of the tank.
 - The water should be extracted from the tank interstice. Consult with ConVault or the manufacturer of your ConVault or call 1-800-965-3227 for recommendations as to water removal techniques.
- c. If the rod is wet and smells of fuel or oil or has a sheen then:
 1. The owner/user should be notified immediately.
 2. It is possible that fuel or oil was introduced into the interstice through the inspection port. The fuel or oil should be extracted from the interstice. At this point and after complete extraction of the fuel or oil the rod should be re-introduced into the inspection port to check for the presence of fuel or oil. If the interstice contains fuel, after pumping out the fuel, the fuel entrapped in the secondary containment will flow down and fuel might be seen in the leak detector tube again. In this case, the best way of insuring the integrity of the primary tank is a pressure or vacuum test, using the ConVault testing manual: www.convault.com/testingmanual.pdf
 3. The inner steel primary containment tank may have leaked and the tank should be tested to determine if primary has failed.
 - At this point, the owner/user should contact the installer or manufacturer of the ConVault or call 1-800-695-3227 for recommended next steps.

Industry Standard Requirements for Tank Inspection Frequency

For the sake of consistency, the standard for testing frequency for ConVault fuel and oil containment systems should be consistent with the requirements of STI SP001 which is detailed below and is normally a function of the size of the tank and its Category per SP001 Standard.

Tank Categories

The tank categories and inspection schedule from SP001 are to be utilized for ConVault tanks.

Among other factors, owners should take a number of aspects into consideration such as the tank leak detection system, and that the monitoring equipment is in good working condition.

Based on many considerations, the SP001 standard classifies tanks into three categories. Depending on the risk a tank system poses to the environment if kept in service it is ranked as a category 1, 2 or 3 tank. Category 1 tanks pose the least amount of risk and category 3 the highest.

See **Table 5.4** of the standard, reproduced here, for examples of tank configuration and AST category. Please note that if the AST bottom plate, other than its legs or supports, is in contact with the ground or a concrete slab, it is prone to corrosion and increased susceptibility to leakage. Shop Fabricated Tanks in contact with the ground or a concrete base are almost always vertical tanks. Such tanks are placed in Category 2 or 3. ASTs which are elevated, have a leak detection system, have spill control and have no part of the tank in contact with the ground (other than legs or supports) are classified as category 1 tanks.

Table 5.4: Example Tank Configurations and AST Category

	Tank Configuration	Tank has CRDM	AST Category
	AST in contact with ground	No	2 or 3
ConVault →	Elevated tank w/ spill control & no part of AST in contact w/ ground	Yes	1
	Vertical tank w/ RPB & spill control	Yes	1
	Vertical tank w/ double bottom & spill control	Yes	1
	Double-wall AST	Yes	1
	AST w/ secondary containment dike/berm	Yes	1

CRDM: Continuous Release Detection Method – or Leak Detection System

RPB: Release Prevention Barrier

Inspection Type and Frequency

The SP0001 standard requires different inspection types and different inspection intervals based on the tank size, tank category, and the risk it poses. The tank inspection intervals from SP001 are to be followed for ConVault tanks.

In Table 5.5 of SP0001 (see next page), those portions pertaining to shop fabricated tanks up to 30,000 gallons have been highlighted showing inspection schedules for the different AST categories.

Industry Standard Requirements for Tank Inspection Frequency (cont.)

In Table 5.5 use the following designations:

P - Periodic AST inspection

E - Formal External Inspection by Certified Inspector

L - Leak test by owner's designee

I - Formal Internal Inspection by Certified Inspector

() indicates maximum inspection interval in years. For example; E (5) indicates formal external inspection every 5 years.

SP001 Table 5.5: Inspection Schedules

ConVault



Shop Fabricated AST Size (US Gallons)		Category 1	Category 2	Category 3
Shop Fabricated ASTs	0-1100 (0-4,164 liters)	P	P	P, E & L (10)
	1,101 - 5,000 (4,168 - 18,927 liters)	P	P, E & L (10)	P, E & L (5), I (10) or P, L (2), E(5)
	5,001 - 30,000 (18,931 - 113,562 liters)	P, E (20)	P, E (10), I (20) or P, E (5), L(10)	P, E & L (5), I (10) or P, E & L (5), E(5)
	30,001 - 50,000	P, E (20)	P, E & L (5), I (15)	P, E & L (5), I (15)
Portable Containers		P	P	P*

*Owners shall either discontinue use of portable container for storage or have the portable container DOT (Department of Transportation) tested and recertified per following schedule (refer to Section 9.0):
 Plastic containers – every 7 years; steel portable container – every 12 years
 Stainless Steel container – every 17 years

Periodic Inspection Requirements

ConVault tanks of 5,000 gallons or less capacity are CATEGORY 1 TANKS. Owners of ConVault ASTs of this size are NOT required to employ Certified AST Inspectors to inspect their tanks to comply with the standard's requirements, but can be in compliance with the standard by inspecting the tanks themselves or having their employees inspect them. ConVault tanks larger than 5000 gallons, are also self-inspected and only require inspection by a Certified Inspector after 20 years of service.

What qualifications are required for the owner to self-inspect his tank, and how does the owner need to know what to inspect?

Section 4 of the SP001 standard defines the qualifications of the Owner's Inspector as follows: *"Periodic inspections are to be performed by an owner's inspector. The personnel performing these inspections shall be knowledgeable of storage facility operations, the type of AST and its associated components, and characteristics of the liquid stored."*

Section 6 of the standard STI SP001 explains what is meant by the PERIODIC AST INSPECTION – and what needs to be inspected and kept in the owner's AST records. These are simple and straight-forward tasks which can be performed by any competent owner or his employees. The standard makes it very easy to know what to do and what to check for by providing a check list in the standard's Appendix C. The first section requires filling in information about the owner and the ID of the tank. The second section is the SP001 Monthly Inspection Checklist which consists of 9 easy to check, Yes or No questions such as; is there water in primary or secondary containment, are there visible signs of leakage around the tank, concrete pad, or ground, are all tank openings properly sealed, etc. The third section is the SP001 Annual Inspection Checklist which contains 27 questions with Yes or No answers and a space for comments. It should be noted that the Periodic Inspection must be performed in addition to the Formal External Inspections.

Simply put, the periodic inspection requirements are visual, documented inspections conducted by an owner's inspector, to assess the general AST conditions, as best as possible, without suspending AST operations or removing the AST from service.

ConVault strongly encourages the use of the Monthly and Annual Inspection Checklists provided in SP001, and, in fact, requires some of these items be checked on a weekly basis as part of the ConVault warranty.

See Pages 10-12 for a ConVault specific Maintenance Checklist.

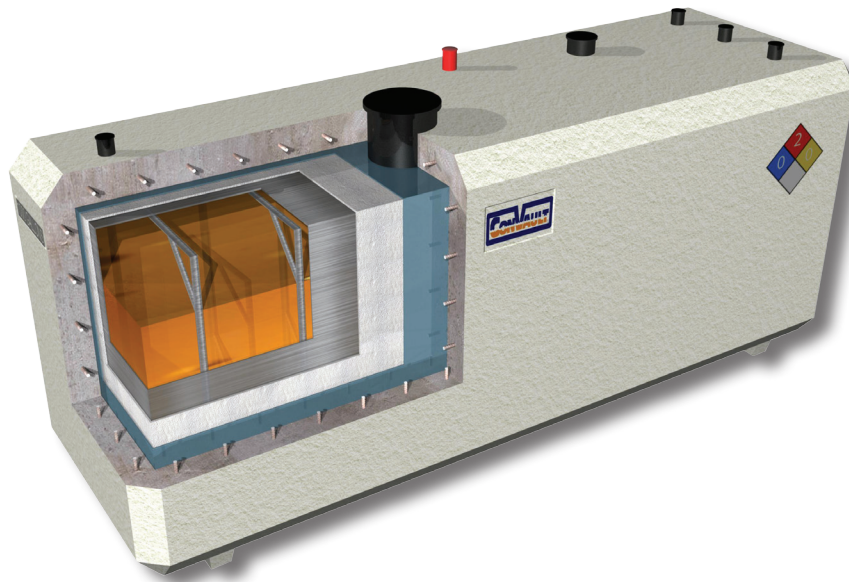
**A copy of ConVault's weekly/monthly/yearly checklist is available online at
<http://www.convault.com/pdfdoc/checklist.pdf>.**

Summary

- As an owner of a ConVault you are NOT required to employ Certified Inspectors or a registered Professional Engineer to perform inspections on ConVault ASTs up to 5,000 gallons for most installations .
- For ConVault ASTs from 5,001 to 12,000 gallons you will need an External Inspection by a Certified Inspector once every 20 years for most installations.
- Monthly and yearly inspections by the tank owner or a designated employee are required by SP001, and Inspection Checklists are provided in Appendix C of the document.
- ConVault requires that the interstice be checked on a weekly basis using the inspection port and rod method described on Page 4.
- A newly installed ConVault AST will meet all the requirements of the SP001 checklists.

Visit: www.epa.gov/emergencies/docs/oil/spcc/integrity-testing-factsheet.pdf

if you have any questions regarding the EPA Spill Prevention, Control and Countermeasure Plan (SPCC) Program



Maintenance Checklist

Inspection Date _____

Inspector _____

Note: This checklist is designed for general use. Some items may not apply. All equipment inspections and maintenance should be documented. You are **encouraged** to make copies of this checklist. See the corresponding maintenance procedures and your owner's manual for corrective actions and more details.

Weekly Maintenance:

- 1. Check leak detector for indication of fluid in interstice. (This is required by warranty.) If checked with a stick gauge, ensure the stick is clean and dry before insertion.
- 2. Check for leaks on the pumps, filters, hoses, nozzles, joints and fittings.
- 3. Check nipples, spill containment and manholes for paint or powder coating decay (required by warranty). Check piping and fitting for rust.
- 4. Check pump meter and reset button.
- 5. Check fuel gauge for proper operation. If you have a Kruger At-A-Glance Gauge, check the clear cap for weathering or cracks.
- 6. Check spill containment for debris.
- 7. Check for small cracks in concrete.
- 8. Check readability of signs and decals.

Monthly Maintenance:

- 9. Check for water in the primary tank bottom under the fuel (required by warranty).
- 10. Visually check the tank, including under the tank for any signs of leakage as required by the Environmental Protection Agency 40 CFR 112.
- 11. Check leak detector tube cap for corrosion and proper operation. If a Kruger manual leak indicator is installed, remove the red ring and clear cap and check to see that the red indicator moves up and down about 1 inch freely. Also, check for weathering or cracks in the clear cap. If electronic leak detection is installed, check it by using the test button.
- 12. Check all nozzles, hoses and fittings for wear and tear.
- 13. Check trigger mechanism on nozzle for metal fatigue or mechanical failure.
- 14. Check pump motor for signs of over-heating or excessive wear.
- 15. Check body of tank for cleanliness, need of paint, or rusting where applicable. Check signs and decals for need of replacement. Check slab and supports of unit for structural soundness.
- 16. Check grounding wires to see that they are properly attached to the tank terminals and grounding rod.

Other Periodic Maintenance:

- 17. Replace the dispenser filter at least every six (6) months or as needed (mark the date replaced on the filter).
- 18. Check fuel for bacterial infestation or microbial growth.
- 19. Have a qualified person periodically check all electrical wiring.
- 20. Check the emergency relief vent at least once a year by lifting the top cap and releasing it to ensure freedom of movement.
- 21. At least once a year, remove the leak detection device and check for proper operation.
- 22. At least once a year, check the calibration of the fuel gauge.
- 23. Follow the pump manufacturer's recommendation for frequency and procedures of maintenance.
- 24. Document significant storage events per 40 CFR 112 and your state regulations.

Maintenance Procedures

Please note that item numbers on this sheet corresponds with the item numbers on the Maintenance Checklist. Most of the maintenance requirements and procedures are also covered in the Convault owner's manual.

Weekly Checks:

1. If leak detector indicates fluid in the interstice, remove any devices and determine what the fluid is. Call your Convault representative.
2. If leaks are detected, contact the appropriate authorities as necessary. Tighten, repair as necessary, replace components, or contact your installer or service company.
3. If paint or powder coating deterioration occurs on nipples, spill containment or manholes, clean to bare metal, prime with a good quality zinc based primer, and repaint. If corrosion is severe, contact your Convault representative as soon as practical.
4. If dispenser meter is not working or will not reset, call your service company or installer.
5. If the fuel gauge fails to operate properly, repair/replace it, or call your service company before the next delivery. (It is the owner/operator's responsibility to prevent the overfilling of the tanks. The gauge is part of the required system to prevent overfilling.) If the Kruger cap has deteriorated, it could be allowing rainwater into the primary tank and should be replaced.
6. Keep spill containment clear of debris at all times. A contaminated spill containment will cause the fuel to be contaminated when any spill is released through the drain into the primary tank. Materials such as rags or paper products used to clean the spill containment must be disposed of properly, as they will usually contain fuel from the spill containment.
7. If there are small cracks in the concrete, fill and repair them. If you have questions, call your local Convault representative.
8. If signs or decals lose visibility, order replacements from your local Convault representative before the next time the tank is filled.

Monthly:

9. If there is water in the tank it will collect at the bottom, under the fuel. Water in the tank will cause increased corrosion. If you discover water in the primary tank it must be removed. One method is to pump it out with a "Thief Pump", a small pump that pulls the water from the bottom 1/8" of the tank. Check tank openings for possible water entry points. If you find that you are pumping out more than one half gallon of water for every 1000 gallons of product stored, see your fuel dealer, or call your Convault representative. Also consult item (I) in the maintenance section of the owner's manual.
10. If you detect leakage, determine what the liquid is, if possible, and call your Convault representative and appropriate authorities as necessary.
11. If there are problems with the leak detector tube or lock, clean and lubricate them as necessary. See item (G) in the maintenance section of the owner's manual. If the Kruger leak indicator does not function properly, remove it and repair or replace it. Due to ultraviolet radiation, the clear cap on the Kruger leak indicator will deteriorate over time. If it has deteriorated, it could be allowing rainwater into the interstitial area and should be replaced. New caps and rings or entire units can be purchased from Kruger, your service company, or your Convault representative. Kruger now offers a guard, which will prolong the life of the cap. If electronic leak detection test fails, call your service company.

12. If nozzles, hoses or fittings exhibit signs of wear and tear, repair/replace as necessary or call your service company.
13. If trigger mechanism on nozzle exhibits signs of metal fatigue or mechanical failure, replace nozzle or call your service company.
14. If pump motor shows signs of overheating or excessive wear, repair as necessary or contact your service company.
15. Clean, paint, and repair problem areas as necessary. Order replacements signs or decals from your local Convault representative. If the slab is cracking or settling, contact your local Convault representative and your slab installer. If you have questions, call your local Convault representative.
16. If grounding wires are not attached properly, make appropriate changes or call your installer or your service company.

Other Periodic Maintenance:

17. Filters can be purchased from your Convault representative or local service company. The date can be scratched on with a sharp object, or written with a permanent marker.
18. If bacterial infestation is detected, consult item (H) in the maintenance section of the owner's manual.
19. Repair as necessary. Wiring (other than intrinsically safe items) in a class 1 area requires special sealing to prevent explosions.
20. If the emergency relief vent exhibits signs of motion restriction, promptly call your installer, your service company, or your Convault representative. Proper operation of this device is critical as most injuries and fatalities that happen in conjunction with fuel fires are due to improper, non-functional emergency relief vents or emergency relief vents replaced with normal pipe caps.
21. Most leak detection devices use a float. By removing the device from the leak detector tube and turning it upside down (simulating a floating situation) you can easily check for movement of the float and proper mechanical or electronic indication. If the leak detection device fails to operate properly, call your installer or your service company.
22. The fuel gauge can be checked by "sticking" the tank and comparing it to the gauge reading. Some gauges are more accurate than the stick. If the gauge reading varies substantially from the stick reading, contact the gauge manufacturer or service company. If your stick reads in inches only and you need a calibration chart, contact your Convault representative.
23. Pump maintenance requirements vary by manufacturer. If you have questions, contact your installer, local service company, or the manufacturer of the equipment.
24. If you have a warranty or environmental problem down the road, documentation will be very helpful. We recommend that you keep a copy of the "Maintenance Checklist" with items marked for every maintenance inspection. Notes about problems and corrections can be written on the back of the sheet and used for future reference. Many sites are now required to have a SPCC plan for emergencies on file. If you need a recommendation for companies that do this, please call your Convault representative. **The name, phone number and location of your local representative can be obtained from the Convault web site by clicking on "Local Distributor" and your state or country at <http://www.convault.com>.**



convault.com

888-965-3227



February 12, 2018

Mr. Mark Austin, P.E.
Town of Hamden
2750 Dixwell Avenue
Hamden, CT 06518

RE: JANUARY-MARCH 2018 QUARTERLY AND SEMI-ANNUAL STORMWATER MONITORING REPORTING, DEPARTMENT OF PUBLIC WORKS GARAGE, VOED BUILDING, AND TRANSFER STATION, HAMDEN, CT (HRP #HAM4063.WM)

Dear Mr. Austin:

Attached please find the Stormwater Monitoring Reports (SMRs) and visual inspection forms for quarterly and semi-annual monitoring conducted by HRP Associates, Inc. (HRP) at the above mentioned facilities for the period covering January through March 2018.

HRP collected samples and performed visual monitoring on January 12, 2018 at three Town facilities referenced above. This sampling event also satisfies the October 1, 2017 through March 31, 2018 semi-annual monitoring requirement. Semi-annual sampling performed in November 2017 will fulfill the "catch up" sampling required by the CT DEEP for the previously missed period (April 1 through September 30, 2017).

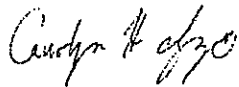
Semi-annual chemical analysis is no longer required for the remainder of the permit term from any of the outfalls located at the VOED facility. Therefore, there are no corresponding SMRs for this facility. The SMRs for sample collection at the Transfer Station and the Public Works Garage are included in Attachment 1. Please sign the "Statement of Certification" on page 3 of the SMRs, make a copy for your records, and submit the signed SMRs to CT DEEP to the address below by April 5, 2018:

Water Toxic Program Coordinator
Bureau of Water Protection and Land Reuse
CT Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

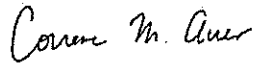
Supplemental data for this sample event (sample collection information and the laboratory report), required to be maintained by the Town of Hamden, is included in Attachments 2 and 3. A copy of the signed SMRs should be filed along with the data provided in Attachment 2 of this report. The quarterly visual sampling reports are included as Attachment 3.

If you have any questions or require additional information, please feel free to contact HRP at (860) 674-9570.

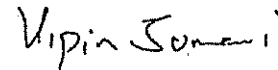
Sincerely,



Carolyn H. Izzo
Project Geologist



Correne M. Auer, P.E.
Senior Project Engineer



Vipin Sumani, P.E.
Project Manager

Attachments

cc: Joe Colello, Public Works Dept., 1125 Shepard Avenue, Hamden, CT 06514

ATTACHMENT 1

Stormwater Monitoring Report (for submission to CT DEEP)



**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Stormwater Monitoring Report Form
Sector G - Municipal or Federal Facilities**

Facility Information

Permittee Name: Town of Hamden Site Name: Hamden PWG
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06518
 Contact Person: Mark Austin Title: Town Engineer
 Business Phone: 203-287-7040 ext.: _____ Email: MAustin@Hamden.com
 Site Address: 1125 Shepard Ave., Hamden, CT
 Receiving Water (name/basin): Mill River (Basin No. 5302)
 Permit #: GSI 001682 Primary SIC: 9199
 Discharges into an Impaired Waterbody: Yes No (If yes, complete the table on page 3 of this form)

Sample Information

Sample Location: Outfall 001 Person Collecting Sample: C. Izzo, HRP Assoc.
 Date/Time Collected: 1/12/18 / 13:55 Date of Previous Storm Event: 12/25/2017
 This report is for samples required: Semi-annually Annually Other
 Check here if the sample contains snow or ice melt:
 Check here if a benchmark exceedance is solely due to background or off site sources see note below

Monitoring Results

Parameter	Required Frequency	Results (Units)	Benchmark	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	NA	5.0 mg/L	<input type="checkbox"/>		
Rainfall pH	Semi-annual	NA	n/a			
Sample pH	Semi-annual	N/A	5-9 SU	<input type="checkbox"/>		
COD	Semi-annual	280 mg/L	75 mg/L	<input checked="" type="checkbox"/>	EPA 410.4	CTL PH0547
TSS	Semi-annual	250 mg/L	90 mg/L	<input checked="" type="checkbox"/>	SM 26540D	CTL PH0547
TP	Semi-annual	1.1 mg/L	0.40 mg/L	<input checked="" type="checkbox"/>	EPA 365.1	CTL PH0547
TKN	Semi-annual	1.5 mg/L	2.30 mg/L	<input type="checkbox"/>	EPA 351.2	CTL PH0547
NO ₃ -N	Semi-annual	Exempt	1.10 mg/L	<input type="checkbox"/>		
Total Copper	Semi-annual	NA	0.059 mg/L	<input type="checkbox"/>		
Total Zinc	Semi-annual	NA	0.160 mg/L	<input type="checkbox"/>		
Total Lead	Semi-annual	NA	0.076 mg/L	<input type="checkbox"/>		
24 Hr. LC ₅₀	Annual-Year 1&2	NA	n/a			
48 Hr. LC ₅₀	Annual-Year 1&2	NA	n/a			

* See Additional Sector G Monitoring Section on page 3 of this form for Federal or Municipal facilities with incidental solid deicing material storage only.

Exemptions

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below
O&G, pH, NO3-N, Total Cu, Total Zn, Total Pb

NOTE: Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

STORMWATER ACUTE TOXICITY TEST DATA SHEET
 (required annually only during Year 1 and Year 2 of the permit)

Site Name: Hamden PWG	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
25% A													
25% B													
25% C													
25% D													
50% A													
50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

REFERENCE TOXICANT RESULTS

Test Species	Date	Reference Toxicant	Source	LC ₅₀
<i>Daphnia pulex</i>				

Additional Monitoring: Sector G

For Federal or Municipal facilities with incidental solid deicing material storage only:

Parameter	Required Frequency	Results (units)	Benchmark	Test Method	Laboratory Name
Chloride	Semi-annual Years 1&2 only		n/a		
Cyanide	Semi-annual Years 1&2 only		n/a		

Additional Monitoring for Discharges to Impaired Waters (if applicable):

Parameter	Frequency	Results (units)	Test Method	Laboratory Name

Statement of Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."



Signature of Permittee

2-28-2017

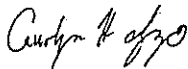
Date

Mark Austin, P.E.

Name of Permittee (print or type)

Town Engineer

Title (if applicable)



Signature of Preparer (if different than above)

2/8/2017

Date

Carrolyn Izzo, HRP Associates, Inc.

Name of Preparer (print or type)

Project Geologist

Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR
 BUREAU OF WATER PROTECTION AND LAND REUSE
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Data Tracking Sheet
Sector G-Municipal or Federal Facilities**

Permittee Name: <u>Town of Hamden</u>	Permit #: GSI <u>001682</u>
Site Name: <u>Hamden PWG</u>	
Site Address: <u>1125 Shepard Avenue, Hamden, CT</u>	
Sample Location: <u>Outfall 001</u>	

Enter the sample dates and the data reported for the 4 most recent semi-annual sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark*	Quality for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	N/A	N/A				5.0 mg/L	
Sample pH	N/A	N/A				5-9 S.U.	
COD	120	280			150	75 mg/L	No
TSS	92	250			171	90 mg/L	No
TP	0.23	1.1			0.67	0.40 mg/L	No
TKN	1.6	1.5			1.55	2.30 mg/L	No
NO ₃ -N	N/A	N/A				1.10 mg/L	
Total Copper	N/A	N/A				0.059 mg/L	
Total Zinc	N/A	N/A				0.160 mg/L	
Total Lead	N/A	N/A				0.076 mg/L	

*If the average of the 4 most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually for that parameter for the rest of the permit (current permit expires 9/30/2016). If your facility qualifies for an exemption from monitoring for sample pH, your facility is also exempt from monitoring rainfall pH for the remainder of the permit.

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample results reported by the testing laboratory were below detection limit, for the purpose of averaging, use a value that is 1/2 the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to section 5 e(1)B(iii) for a more detailed explanation.



**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Stormwater Monitoring Report Form
Sector G - Municipal or Federal Facilities**

Facility Information

Permittee Name: Town of Hamden Site Name: Hamden PWG
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06518
 Contact Person: Mark Austin Title: Town Engineer
 Business Phone: 203-287-7040 ext.: _____ Email: MAustin@Hamden.com
 Site Address: 1125 Shepard Ave., Hamden, CT
 Receiving Water (name/basin): Mill River (Basin No. 5302)
 Permit #: GSI 001682 Primary SIC: 9199
 Discharges into an Impaired Waterbody: Yes No (If yes, complete the table on page 3 of this form)

Sample Information

Sample Location: Outfall 003 Person Collecting Sample: C. Izzo, HRP Associates
 Date/Time Collected: 1/12/18 / 14:10 Date of Previous Storm Event: 12/25/2017
 This report is for samples required: Semi-annually Annually Other
 Check here if the sample contains snow or ice melt:
 Check here if a benchmark exceedance is solely due to background or off site sources see note below

Monitoring Results

Parameter	Required Frequency	Results (units)	Benchmark	Benchmark Exceedance (see pg.4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	ND<2.0	5.0 mg/L	<input type="checkbox"/>		
Rainfall pH	Semi-annual	6.59	n/a			
Sample pH	Semi-annual	8.15	5-9 SU	<input type="checkbox"/>		
COD	Semi-annual	490 mg/L	75 mg/L	<input checked="" type="checkbox"/>		
TSS	Semi-annual	880 mg/L	90 mg/L	<input checked="" type="checkbox"/>		
TP	Semi-annual	0.72 mg/L	0.40 mg/L	<input checked="" type="checkbox"/>		
TKN	Semi-annual	1.2 mg/L	2.30 mg/L	<input type="checkbox"/>		
NO ₃ -N	Semi-annual	ND<0.55	1.10 mg/L	<input type="checkbox"/>	SM 4500-NO3 F	CTL PH0547
Total Copper	Semi-annual	0.070 mg/L	0.059 mg/L	<input checked="" type="checkbox"/>		
Total Zinc	Semi-annual	0.36 mg/L	0.160 mg/L	<input checked="" type="checkbox"/>		
Total Lead	Semi-annual	0.041 mg/L	0.076 mg/L	<input type="checkbox"/>		
24 Hr. LC ₅₀	Annual-Year 1&2	N/A	n/a			
48 Hr. LC ₅₀	Annual-Year 1&2	N/A	n/a			

* See Additional Sector G Monitoring Section on page 3 of this form for Federal or Municipal facilities with incidental solid deicing material storage only.

Exemptions

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below

NOTE: Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

STORMWATER ACUTE TOXICITY TEST DATA SHEET
 (required annually only during Year 1 and Year 2 of the permit)

Site Name: NA (CTL No. 12204)	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
25% A													
25% B													
25% C													
25% D													
50% A													
50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

REFERENCE TOXICANT RESULTS

Test Species	Date	Reference Toxicant	Source	LC ₅₀
<i>Daphnia pulex</i>				

Additional Monitoring: Sector G

For Federal or Municipal facilities with **incidental solid deicing material storage only:**

Parameter	Required Frequency	Results (units)	Benchmark	Test Method	Laboratory Name
Chloride	Semi-annual Years 1&2 only		n/a		
Cyanide	Semi-annual Years 1&2 only		n/a		

Additional Monitoring for Discharges to Impaired Waters (if applicable):

Parameter	Frequency	Results (units)	Test Method	Laboratory Name

Statement of Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."



Signature of Permittee

2-28-2018

Date

Mark Austin, P.E.

Name of Permittee (print or type)

Town Engineer

Title (if applicable)



Signature of Preparer (if different than above)

2/8/2018

Date

Carrolyn Izzo, HRP Associates, Inc.

Name of Preparer (print or type)

Project Geologist

Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR
 BUREAU OF WATER PROTECTION AND LAND REUSE
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Data Tracking Sheet
Sector G-Municipal or Federal Facilities**

Permittee Name: <u>Town of Hamden</u>	Permit #: GSI <u>001682</u>
Site Name: <u>Hamden PWG</u>	
Site Address: <u>1125 Shepard Ave., Hamden, CT</u>	
Sample Location: <u>Outfall 003</u>	

Enter the sample dates and the data reported for the 4 most recent semi-annual sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark	Quality for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	22	ND<2.0			12	5.0 mg/L	No
Sample pH	7.4	8.15			7.78	5-9 S.U.	No
COD	150	490			320	75 mg/L	No
TSS	76	880			438	90 mg/L	No
TP	0.29	0.72			0.51	0.40 mg/L	No
TKN	1.6	1.2			1.4	2.30 mg/L	No
NO ₃ -N	0.42	ND<0.05			0.24	1.10 mg/L	No
Total Copper	ND<0.03	0.070			0.10	0.059 mg/L	No
Total Zinc	0.16	0.36			0.26	0.160 mg/L	No
Total Lead	0.014	0.041			0.028	0.076 mg/L	No

*If the average of the 4 most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually for that parameter for the rest of the permit (current permit expires 9/30/2016). If your facility qualifies for an exemption from monitoring for sample pH, your facility is also exempt from monitoring rainfall pH for the remainder of the permit.

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample results reported by the testing laboratory were below detection limit, for the purpose of averaging, use a value that is 1/2 the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to section 5 e(1)B(iii) for a more detailed explanation.



**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Stormwater Monitoring Report Form
Sector G - Municipal or Federal Facilities**

Facility Information

Permittee Name: Town of Hamden Site Name: Hamden PWG
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06518
 Contact Person: Mark Austin Title: Town Engineer
 Business Phone: 203-287-7040 ext.: _____ Email: MAustin@Hamden.com
 Site Address: 1125 Shepard Ave., Hamden, CT
 Receiving Water (name/basin): Mill River (Basin No. 5302)
 Permit #: GSI 001682 Primary SIC: 9199
 Discharges into an Impaired Waterbody: Yes No (If yes, complete the table on page 3 of this form)

Sample Information

Sample Location: Outfall 006 Person Collecting Sample: C. Izzo, HRP Associates
 Date/Time Collected: 1/12/18 / 13:42 Date of Previous Storm Event: 12/25/2017
 This report is for samples required: Semi-annually Annually Other
 Check here if the sample contains snow or ice melt:
 Check here if a benchmark exceedance is solely due to background or off site sources see note below

Monitoring Results

Parameter	Required Frequency	Results (Units)	Benchmark	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	ND<2.0	5.0 mg/L	<input type="checkbox"/>		
Rainfall pH	Semi-annual	Exempt	n/a			
Sample pH	Semi-annual	Exempt	5-9 SU	<input type="checkbox"/>		
COD	Semi-annual	500 mg/L	75 mg/L	<input checked="" type="checkbox"/>		
TSS	Semi-annual	110 mg/L	90 mg/L	<input checked="" type="checkbox"/>		
TP	Semi-annual	1.9 mg/L	0.40 mg/L	<input checked="" type="checkbox"/>		
TKN	Semi-annual	ND<0.5	2.30 mg/L	<input type="checkbox"/>		
NO ₃ -N	Semi-annual	Exempt	1.10 mg/L	<input type="checkbox"/>	SM 4500-NO3 F	CTL PH0547
Total Copper	Semi-annual	ND<0.020	0.059 mg/L	<input type="checkbox"/>		
Total Zinc	Semi-annual	0.097 mg/L	0.160 mg/L	<input type="checkbox"/>		
Total Lead	Semi-annual	0.023 mg/L	0.076 mg/L	<input type="checkbox"/>		
24 Hr. LC ₅₀	Annual-Year 1&2	N/A	n/a			
48 Hr. LC ₅₀	Annual-Year 1&2	N/A	n/a			

* See Additional Sector G Monitoring Section on page 3 of this form for Federal or Municipal facilities with incidental solid deicing material storage only.

Exemptions

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below
pH, NO3-N

NOTE: Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

STORMWATER ACUTE TOXICITY TEST DATA SHEET
 (required annually only during Year 1 and Year 2 of the permit)

Site Name: NA (CTL No. 12204)	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
25% A													
25% B													
25% C													
25% D													
50% A													
50% B													
50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

REFERENCE TOXICANT RESULTS

Test Species	Date	Reference Toxicant	Source	LC ₅₀
<i>Daphnia pulex</i>				

Additional Monitoring: Sector G

For Federal or Municipal facilities with incidental solid deicing material storage only:

Parameter	Required Frequency	Results (units)	Benchmark	Test Method	Laboratory Name
Chloride	Semi-annual Years 1&2 only		n/a		
Cyanide	Semi-annual Years 1&2 only		n/a		

Additional Monitoring for Discharges to Impaired Waters (if applicable):

Parameter	Frequency	Results (units)	Test Method	Laboratory Name

Statement of Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."



Signature of Permittee

2-20-2018

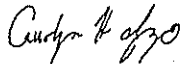
Date

Mark Austin, P.E.

Name of Permittee (print or type)

Town Engineer

Title (if applicable)



Signature of Preparer (if different than above)

2/8/2017

Date

Carolyn Izzo, HRP Associates, Inc.

Name of Preparer (print or type)

Project Geologist

Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR
 BUREAU OF WATER PROTECTION AND LAND REUSE
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Data Tracking Sheet
Sector G-Municipal or Federal Facilities**

Permittee Name: <u>Town of Hamden</u>	Permit #: GSI <u>001682</u>
Site Name: <u>Hamden PWG</u>	
Site Address: <u>1125 Shepard Ave., Hamden, CT</u>	
Sample Location: <u>Outfall 006</u>	

Enter the sample dates and the data reported for the 4 most recent semi-annual sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark	Quality for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	6.2	ND<2.0			4.1	5.0 mg/L	No
Sample pH	Exempt	Exempt			Exempt	5-9 S.U.	Yes, Previously
COD	1500	500			1000	75 mg/L	No
TSS	2400	110			1255	90 mg/L	No
TP	2.6	1.9			2.25	0.40 mg/L	No
TKN	7.9	ND<0.5			4.2	2.30 mg/L	No
NO ₃ -N	Exempt	Exempt			Exempt	1.10 mg/L	Yes, Previously
Total Copper	0.12	ND<0.020			0.07	0.059 mg/L	No
Total Zinc	0.50	0.097			0.3	0.160 mg/L	No
Total Lead	0.15	0.023			0.09	0.076 mg/L	No

*If the average of the 4 most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually for that parameter for the rest of the permit (current permit expires 9/30/2016). If your facility qualifies for an exemption from monitoring for sample pH, your facility is also exempt from monitoring rainfall pH for the remainder of the permit.

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample results reported by the testing laboratory were below detection limit, for the purpose of averaging, use a value that is 1/2 the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to section 5 e(1)B(iii) for a more detailed explanation.



General Permit for the Discharge of Stormwater Associated with Industrial Activity, effective 10/1/2011
Stormwater Monitoring Report Form
Sector C – Refuse Systems

Facility Information

Permittee Name: Town of Hamden Site Name: Hamden Landfill, Trans. Sta. & Recyc. Ctr
 Mailing Address: 2750 Dixwell Ave., Hamden, CT 06514
 Contact Person: Mark Austin Title: Town Engineer
 Business Phone: (203) 287-7040 ext.: _____ Email: MAustin@Hamden.com
 Site Address: 231 Wintergreen Ave., Hamden, CT 06514
 Receiving Water (name/basin): Wintergreen Brook (Basin No. 5304)
 Permit #: GSI 001681 Primary SIC: 4953
 Discharges into an Impaired Waterbody: Yes No (If yes, complete the table on page 3 of this form)

Sample Information

Sample Location: Outfall 001 Person Collecting Sample: C. Izzo (HRP Associates)
 Date/Time Collected: 1/12/18 / 12:55 Date of Previous Storm Event: December 25, 2017
 This report is for samples required: Semi-annually Annually Other
 Check here if the sample contains snow or ice melt:
 Check here if a benchmark exceedance is solely due to background or off site sources see note below

Monitoring Results

Parameter	Required Frequency	Results (units)	Benchmark	Effluent Limit	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Oil & Grease	Semi-annual	Exempt	5.0 mg/L	n/a	<input type="checkbox"/>		
Rainfall pH	Semi-annual	Exempt	n/a	n/a	<input type="checkbox"/>		
Sample pH	Semi-annual	Exempt	5-9 SU	*			
COD	Semi-annual	190 mg/L	75 mg/L	n/a	<input checked="" type="checkbox"/>	EPA 410.4	CTL PH0547
TSS	Semi-annual	260 mg/L	90 mg/L	*	<input checked="" type="checkbox"/>	SM 2540D	CTL PH0547
TP	Semi-annual	1.0 mg/L	0.40 mg/L	n/a	<input checked="" type="checkbox"/>	EPA 365.1	CTL PH0547
TKN	Semi-annual	2.2 mg/L	2.30 mg/L	n/a	<input type="checkbox"/>	EPA 351.2	CTL PH0547
NO ₃ -N	Semi-annual	Exempt	1.10 mg/L	n/a	<input type="checkbox"/>		
Total Copper	Semi-annual	ND<0.02	0.059 mg/L	n/a	<input type="checkbox"/>	EPA 200.8	CTL PH0547
Total Zinc	Semi-annual	0.080	0.160 mg/L	*	<input type="checkbox"/>	EPA 200.8	CTL PH0547
Total Lead	Semi-annual	0.035 mg/L	0.076 mg/L	n/a	<input type="checkbox"/>	EPA 200.8	CTL PH0547
24 Hr. LC ₅₀	Annual-Year 1&2	NA	n/a	n/a		NA	NA
48 Hr. LC ₅₀	Annual-Year 1&2	NA	n/a	n/a		NA	NA

* See Additional Sector C Monitoring Section on page 3 of this form.

Exemptions

List here any parameter(s) that will not be sampled for the remainder of the permit term: see note below
O&G, pH, NO3-N

NOTE: Complete the "Data Tracking Table" (page 4 on this form) to show the parameter is eligible for the monitoring exemption in Section 5(e)(1)(B)(iii) of the general permit. If you are discontinuing monitoring for impaired water parameters (per Section 5(e)(1)(D)), or parameters that are present due to natural or background levels or off site run-on (per Section 5(e)(1)(B)(V)), attach additional supporting information to this form.

STORMWATER ACUTE TOXICITY TEST DATA SHEET
(required annually only during Year 1 and Year 2 of the permit)

Site Name: Hamden Landfill, Transfer Station and Recycling Center	
Date/Time Begin:	Date/Time End:
Sample Hardness:	Sample Conductivity:
Test Species: <i>Daphnia pulex</i> < 24 hrs old	Dilution Water Hardness:

Effluent Dilution	Number of Organisms Surviving			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (su)			
	Hour	00	24	48	00	24	48	00	24	48	00	24	48
CONTROL 1													
CONTROL 2													
CONTROL 3													
CONTROL 4													
6.25% A													
6.25% B													
6.25% C													
6.25% D													
12.5% A													
12.5% B													
12.5% C													
12.5% D													
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50% C													
50% D													
100% A													
100% B													
100% C													
100% D													

REFERENCE TOXICANT RESULTS

Test Species	Date	Reference Toxicant	Source	LC ₅₀
<i>Daphnia pulex</i>				

Additional Monitoring: Sector C – Landfills and Solid Waste Disposal Areas Only

Parameter	Required Frequency	Results (Units)	Benchmark	Effluent Limit	Benchmark Exceedance (see pg 4)	Test Method	Laboratory Name
Total Iron	Quarterly	11 mg/L	1 mg/L	n/a	<input checked="" type="checkbox"/>	SM 3111B	CTL PH0547
Effluent Samples*							
BOD	Annually for the entire permit term		n/a	140 mg/L	<input type="checkbox"/>		
TSS	Annually for the entire permit term		n/a	88 mg/L	<input type="checkbox"/>		
Ammonia	Annually for the entire permit term		n/a	10 mg/L	<input type="checkbox"/>		
Alpha Terpineol	Annually for the entire permit term		n/a	0.033 mg/L	<input type="checkbox"/>		
Benzoic Acid	Annually for the entire permit term		n/a	0.12 mg/L	<input type="checkbox"/>		
p-Cresol	Annually for the entire permit term		n/a	0.025 mg/L	<input type="checkbox"/>		
Phenol	Annually for the entire permit term		n/a	0.026 mg/L	<input type="checkbox"/>		
Total Zinc	Annually for the entire permit term		n/a	0.200 mg/L	<input type="checkbox"/>		
Sample pH	Annually for the entire permit term		n/a	6-9 mg/L	<input type="checkbox"/>		

*Annual samples may be taken at the same time as one of the semi-annual samples for the general sampling parameters. An effluent limit applies to any single sample (not average of 4).

Additional Monitoring for Discharges to Impaired Waters (if applicable)

Parameter	Required Frequency	Results (units)	Test Method	Laboratory Name

Statement of Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

Mark Austin

Signature of Permittee

2-20-2018

Date

Mark Austin, P.E.

Name of Permittee (print or type)

Town Engineer

Title (if applicable)

Carolyn Izzo

Signature of Preparer (if different than above)

2/8/2017

Date

Carrolyn Izzo, HRP Associates, Inc.

Name of Preparer (print or type)

Project Geologist

Title (if applicable)

Please send all completed forms to:

WATER TOXICS PROGRAM COORDINATOR
 BUREAU OF WATER PROTECTION AND LAND REUSE
 CT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

**General Permit for the Discharge of Stormwater Associated with
Industrial Activity, effective 10/1/2011
Data Tracking Sheet
Sector C – Refuse Systems**

Permittee Name: <u>Town of Hamden</u>	Permit #: <u>GSI 001681</u>
Site Name: <u>Hamden Landfill, Transfer Station and Recycling Center</u>	
Site Address: <u>Wintergreen Brook (Basin No. 5304)</u>	
Sample Location: <u>Outfall 001</u>	

Enter the sample dates and the data reported for the four (4) most recent semi-annual or quarterly monitoring sample results at this discharge location in the chart below. To determine the average for the four samples add up each of the four results and then divide that number by 4. **Only monitoring collected under the current permit (effective 10/1/11,) can be used to earn the monitoring exemption.**

$$\text{Average} = \frac{(\text{Sample 1} + \text{Sample 2} + \text{Sample 3} + \text{Sample 4})}{4}$$

Parameter	Sample Result				Average	Benchmark**	Qualify for exemption?
	1	2	3	4			
Sample Date	11/16/17	1/12/18					
O&G	Exempt	Exempt			Exempt	5.0 mg/L	Yes, previously
Sample pH*	Exempt	Exempt			Exempt	5-9 S.U.	Yes, previously
COD	430 mg/L	190 mg/L			310	75 mg/L	No
TSS*	400 mg/L	260 mg/L			330	90 mg/L	No
TP	0.90 mg/L	1.0 mg/L			0.95	0.4 mg/L	No
TKN	3.5 mg/L	2.2 mg/L			2.85	2.30 mg/L	No
NO ₃ -N	Exempt	Exempt			Exempt	1.10 mg/L	Yes, previously
Total Copper	<0.030 mg/L	<0.020 mg/L			<0.030	0.059 mg/L	No
Total Zinc*	0.11 mg/L	0.080 mg/L			0.095	0.16 mg/L	No
Total Lead	0.039 mg/L	0.035 mg/L			0.037	0.076 mg/L	No
Total Iron	10 mg/L	11 mg/L			10.5	1.0 mg/L	No

**If the average of the four (4) most recent samples is less than the benchmark listed, your facility is no longer required to sample semi-annually or quarterly for that parameter for the rest of the permit (current permit expires 9/30/2016).

If the average of the four (4) most recent samples is equal to or greater than the benchmark listed, check the appropriate box on page 1. If so, you have exceeded the benchmark and must continue to sample this parameter semiannually until the average is below the benchmark. See Section 5(e)(1)(B) of the General permit for requirements when exceeding a benchmark.

If the sample result reported by the testing laboratory was below detection limit, for the purpose of averaging, use a value that is ½ the detection limit for that parameter in the formula above. For example, if the result for Oil & Grease was <2.0 mg/L, use a value of 1.0 mg/L for determining the average. Please refer to Section 5 e(1)B(iii) for a more detailed explanation.

*Due to effluent limits, landfills and solid waste disposal areas within Sector C are required to monitor annually for nine parameters including sample pH, TSS and Zinc for the entire permit term. The pH of uncontaminated rainfall is also recommended to provide background information. See additional

monitoring for landfills and solid waste disposal areas within Sector C on page 2 of this form for this list of parameters.