Environmental Standard Operating Procedures (ESOP)

TITLE: ESOP 9.7| BULK STORAGE AND MANAGEMENT OF HAZARDOUS MATERIALS (HM)

PURPOSE: This ESOP establishes the management and storage requirements for containers of hazardous material with a capacity equal to or greater than 55-gallons. Key revisions in the Spill Prevention and Control Countermeasures (SPCC) Plan and Facility Response Plan (FRP) requirements of the Clean Water Act have placed greater regulatory requirements on the management of these types of containers. Compliance with these requirements will reduce the likelihood and/or severity of HM surface water discharges and subsequent cleanup costs. **This ESOP must be placed into the unit's environmental SOP.**

APPLICABILITY: Containers of HMs with a capacity equal to or greater than 55 gallons including, but not limited to:

a. Both external and internal storage of HMs.

b. Operational/tactical non-mobile equipment, generators, six-cons, fuel bladders and etc which are stored outside/inside a building or utilized for field operations. Examples include aboveground storage tanks, underground storage tanks, oil-filled operational equipment, emergency generators with external and/or internal tanks, mobile tanks, and drum storage locations. Exempted facilities include storage sites where HM containers are located within the confines of a unit's building and are incapable of releasing fluids to the exterior of the building. Examples are HMs within a Motor Pool dispensing room that has no floor drains, floor drain or maintenance bay sumps that have no exterior drainage piping. Also, exempt are operational/tactical self- mobile equipment (i.e. AAVs, LAVs, Tanks, 7–ton trucks) that do not have an external fuel source.

RESPONSIBILITY: All personnel who manage and store containers of HM with a capacity equal to or greater than 55-gallons.

PROCEDURE:

1. Place All Applicable Containers in Secondary Containment. Secondary containment systems can be defined as permanent or temporary.

a. Permanent secondary containment systems. Systems that have been specifically designed, constructed and/or installed during and/or after the initial construction phase of the associated building(s). These containment systems typically have an associated room, building or structure number, are constructed of permanent building materials and in general, are covered in order to prevent exposure to the elements.

b. Temporary secondary containment systems. Systems that have been designed to temporarily stage HMs. These containment systems typically consist of collapsible berms, secondary containment pallets, or containment systems constructed from light materials (sand-bags, impervious tarpaulins, 2X4's, etc). In general these containment systems can be installed or constructed in a short period of time, provide limited secondary containment capacity and little or no overhead protection from the elements. Due to the limited capability that temporary secondary containment systems have, units in garrison shall utilize existing permanent secondary containment systems for the storage of HMs. These types of containment systems are typically used for field operations. Temporary containments in garrison can be utilized only until permanent facilities are available; however, documented daily inspections must be conducted.

c. SPCC regulations require that secondary containment located at the exterior of a building with no overhead coverage or with the potential to intercept rainwater to be able to contain 100% of the product in containers as well as 8 inches of freeboard/ullage. (24-hour, 25-year rainfall event for Onslow County)

2. Utilize Proper Secondary Containment for Field Operations. Field operations involving HMs in containers having capacity of 55 gallons or more, require adequate secondary containment. These temporary secondary containment devices must hold at least 110% of the volume of the largest container located in the containment. Documented daily inspections must be conducted.

3. Implement Best Management Practices. Units are responsible for ensuring that adequate measures are taken to prevent releases and should implement Best Management Practices (BMPs). An example of a BMP would be to consolidate all compatible HM containers (55 gallons capacity or more) and provide secondary containment for all rather than individual storage locations located throughout the unit's compound.

4. Conduct Weekly/Daily Inspections of Secondary Containment. Units will inspect permanent containment storage areas on a weekly basis. Temporary containment systems will be inspected daily. The required inspection checklists are provided in Attachment (1) for weekly inspections of tanks, Attachment (2) for weekly inspections of drums or Attachment (3) for daily inspections.

5. Drain Secondary Systems Regularly. Secondary containment systems located outside a building must have a means to remove and properly dispose of excess rainwater. These systems must be inspected & documented after each significant rain event or during weekly AST/55-Gallon Container Area weekly inspection.

a. If a sheen, due to POL residue is located on the surface of the contained rainwater, unit personnel must utilize oil-only absorbents to absorb and/or filter the water prior to release. When the sheen no longer exists, the collected rainwater can be released into the environment.

b. Antifreeze, coolant or any other HM residues located within a secondary containment berm cannot be released into the environment. Units must submit a work request to Lejeune_pas@usmc.mil for such a pump-out AND/OR contain the collected rainwater for disposal.

6. Prohibited Practices. Storage of any HM containers (i.e. jerry-cans, 55 gallon drums, six-cons, generators, etc) of any size on wash-pads, washracks or adjacent to floor drains that feed or intercept oil and water separators (OWSs) is PROHIBITED. OWSs are not considered adequate secondary containment as they still maintain the potential to release to the sanitary sewer system.

7. Corrective Actions. All deficiencies identified during the daily/weekly inspection should include corrective actions needed to correct the problem(s). If assistance with corrective actions is needed, contact EMD.

REFERENCES:

(a) 40 CFR 112.7

(b) MCO P5090.2A W/CH 1-3 – Environmental Compliance and Protection Manual

(c) EMD CETEP Training https://intranet.emportal.usmc.mil/sites/le/CETEP/default.aspx

(d) Attachement 1-3 http://www.lejeune.marines.mil/Offices-Staff/Environmental-Mgmt/EMD-Approved-Forms/

TRAINING: Unit personnel should be trained on all the provisions of this ESOP. A PowerPoint presentation is available on the EMD website (see REFERENCES). An electronic version of this training can be obtained by contacting EMD Training Coordinator, 451-9658 or going to the EMD Environmental Compliance & Protection Standard Operation Procedures (ECPSOP) website & clicking on Environmental Training_CETEP.

NOTES: Freeboard capacity – Due to the more stringent requirements for the exterior storage of HM products with capacity of 55 gallons, units shall utilize existing, permanent secondary containment systems. In some cases, utilization of these covered structures exempts unit personnel from the required 8-inch freeboard capacity. Contact EMD to determine if the storage structure meets this requirement.

DOCUMENT OWNER:

Record of Revision ESOP 9.7 Bulk Storage and Management of Hazardous Materials

Revision Number	Date	Summary of Change	Signature
Initial Distribution	8 August 2005	DISTRIBUTED UNDER POLICY LETTER TO DISTRIBUTION A	PH Raper, ECB/EMD
Update	24 November 2008	RE-DISTRIBUTED UNDER POLICY POLICY LETTER DISTRIBUTION A	PH Raper, ECB/EMD
Update	23 MARCH 2011	UPDATED	K. HUMES, ECB/EMD
Update	01 June 2014	UPDATED	S.J. AZOK, ECB/EMD

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WEEKLY/MONTHLY STORAGE TANK SYSTEM INSPECTION CHECKLIST

(This form is designed to accommodate multiple tanks for one inspection date, or multiple inspection dates for one tank.)

Date: _____ **Inspector:** _____

Tank ID:	**Location:**	**Tank Size:**	**Content:**
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Item	Task	Tank ID:	Tank ID:	Tank ID:	Tank ID:	Comments/Ticket #
1.0 Tank Containment	**Date:**					
1.1 Containment structure	Check for water, debris, cracks or fire hazard	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	
1.2 Primary tank	Check for water	N/A	N/A	N/A	N/A	**
1.3 Containment drain valves	Operable and in a closed position	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
1.4 Pathways and entry	Clear and gates/doors operable	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
2.0 Leak Detection						
2.1 Tank	Visible signs of leakage	☐ Yes* ☐ No	☐ Yes* ☐ No	☐ Yes* ☐ No	☐ Yes* ☐ No	
2.2 Secondary Containment	Rainwater present in containment	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	
	Visible signs of leakage	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	
	Sheen or Product?	☐Sheen ☐Product	☐Sheen ☐Product	☐Sheen ☐Product	☐Sheen ☐Product	
	Treatment Employed (describe in comments)	☐Yes ☐No ☐N/A	☐Yes ☐No ☐N/A	☐Yes ☐No ☐N/A	☐Yes ☐No ☐N/A	
	Containment Drained	Time Open:_____ Time Close:_____	Time Open:_____ Time Close:_____	Time Open:_____ Time Close:_____	Time Open:_____ Time Close:_____	
2.3 Surrounding soil	Visible signs of leakage	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	
2.4 Interstice	Visible signs of leakage	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	
3.0 Tank Equipment						
3.1 Valves	a. Check for leaks.	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	
	b. Tank drain valves must be kept locked.	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
3.2 Spill containment boxes on fill pipe	a. Inspect for debris, residue, and water in the box and remove.	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	☐Yes* ☐No ☐N/A	
	b. Drain valves must be operable and closed.	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
3.3 Liquid level equipment	a. Both visual and mechanical devices must be inspected for physical damage.	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
	b. Check that the device is easily readable	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
3.4 Overfill equipment	a. If equipped with a "test" button, activate the audible horn or light to confirm operation. This could be battery powered. Replace the battery if needed	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
	b. If overfill valve is equipped with a mechanical test mechanism, actuate the mechanism to confirm operation.	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
3.5 Piping connections	Check for leaks, corrosion and damage	☐ Yes* ☐ No	☐ Yes* ☐ No	☐ Yes* ☐ No	☐ Yes* ☐ No	
4.0 Tank Attachments and Appurtenances						
4.1 Ladder and platform structure	Secure with no sign of severe corrosion or damage?	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	☐Yes ☐No* ☐N/A	
5.0 Other Conditions						
5.1 Are there other conditions that should be addressed for continued safe operation or that may affect the site spill prevention plan?		☐ Yes* ☐ No	☐ Yes* ☐ No	☐ Yes* ☐ No	☐ Yes* ☐ No	

* Designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.

** In accordance with Section 3.2 of the SPCC Plan (Environmental Equivalence), inspection for water in the primary tank will be conducted annually and recorded on the STI SP001 Annual Inspection Checklist.

PREVIOUS EDITIONS ARE OBSOLETE

ATTACHMENT (1)

DRUM SITE INSPECTION CHECKLIST

Instructions: This form is designed to accommodate multiple drum sites for one inspection date, or multiple inspection dates for one drum site. (*) designates an item in non-conformance/unsatisfactory status; provide action in comment section to resolve problem and notify Environmental Protection Specialist if any significant deficiencies are identified.
Regulatory Driver: 40 CFR 112
Frequency: Weekly/Monthly

Drum Site Name:____ Date: ____________________

Location:__________________ Quantity of Drums: _________ Volume of Drums: ________ Content: _______________

STI SP001 Portable Container Weekly/Monthly Inspection Checklist

Inspection Guidance:

- For equipment not included in this Standard, follow the manufacturer recommended inspection/testing schedules and procedures.
- The periodic AST Inspection is intended for monitoring the external AST condition and its containment structure. This visual inspection does not require a Certified Inspector. It shall be performed by an owner's inspector who is familiar with the site and can identify changes and developing problems.
- (*) designates an item in a non-conformance status. This indicates that action is required to address a problem.
- Non-conforming items important to tank or containment integrity require evaluation by an engineer experienced in AST design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action in the comment section.
- Retain the completed checklists for 36 months.

Item	Area:	Area:	Area:	Area:
	Date:	Date:	Date:	Date:
1.0 AST Containment/Storage Area				
1.1 ASTs within designated storage area?	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*
1.2 Debris, spills, or other fire hazards in containment or storage area?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
1.3 Water in outdoor secondary containment?	☐Yes* ☐No (If yes, move to 1.3.1)	☐Yes* ☐No (If yes, move to 1.3.1)	☐Yes* ☐No (If yes, move to 1.3.1)	☐Yes* ☐No (If yes, move to 1.3.1)
1.3.1 Secondary Containment Drainage Log	Sheen Visible: ☐Yes ☐No Product Visible: ☐Yes ☐No Treatment Employed: ☐Yes ☐No Time Drain Valve Opened:__________ Time Drain Valve Closed:__________	Sheen Visible: ☐Yes ☐No Product Visible: ☐Yes ☐No Treatment Employed: ☐Yes ☐No Time Drain Valve Opened:__________ Time Drain Valve Closed:__________	Sheen Visible: ☐Yes ☐No Product Visible: ☐Yes ☐No Treatment Employed: ☐Yes ☐No Time Drain Valve Opened:__________ Time Drain Valve Closed:__________	Sheen Visible: ☐Yes ☐No Product Visible: ☐Yes ☐No Treatment Employed: ☐Yes ☐No Time Drain Valve Opened:__________ Time Drain Valve Closed:__________
1.4 Drain valves operable and in a closed position?	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*
1.5 Egress pathways clear and gates/doors operable?	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*
2.0 Leak Detection				
2.1 Visible signs of leakage around the container or storage area?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
3.0 Container				
3.0 Noticeable container distortions, buckling, denting or bulging?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No

(*) designates an item in non-conformance status. This indicates that action is required to address a problem.

Comments: ____

____

____

____

Inspector: ______________________________

Signature: ______________________________ Date: ______________

DAILY ABOVEGROUND STORAGE TANK (AST)/ CONTAINER STORAGE AREA INSPECTION LOG

UNIT: _____ MONTH/YEAR: _____

TANK ID/LOCATION($): _____ INSPECTED BY: _____

Date Inspected	TIME	Person conducting inspection	Has rainwater accumulated in the secondary containment? If YES, estimate the amount	Does the accumulated rainwater have a sheen? If NO, drain & record date/ time. If YES see next question.	rs the sheen recoverable? If YES, record date/ time/amt recovered then drain. If NO, contact EMD and record ticket number	Is condition of the secondary containment impermeable intact & in good condition?	Is the condition of the tank/ container sound (no rusting, corrosion, pitting, etc)?	Does the outside of the tank/ container or containment show any signs of leakage?	Are the bypass valves (PIV, drain plug, etc) closed and/or locked?	FOR ASTs: Is the piping, couprings, pumps, fitters, gaskets, etc, in good condition?	FOR ASTs: Is the foundation & supports of the AST in good condition?	TICKET NUMBER	PERSON CONTACTED

COMMENTS/NOTES: