How to Prepare Your Own SPCC Plan:

A Step-by-Step Guide for Tier 1 Qualified Facilities

Using the US EPA Tier I SPCC Template

MODULE V

Inspections, Testing, Recordkeeping, Personnel Training

(28 slides + quiz)

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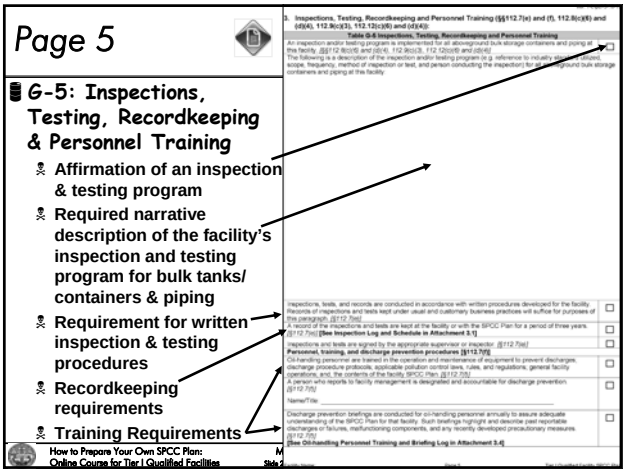
Page 5



- **G-5: Inspections, Testing, Recordkeeping & Personnel Training**
  - **Affirmation of an inspection & testing program**
  - **Required narrative description of the facility's inspection and testing program for bulk tanks/ containers & piping**
  - **Requirement for written inspection & testing procedures**
  - **Recordkeeping requirements**
  - **Training Requirements**

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Page 5 Inspections & Testing Detail

3. Inspections, Testing, Recordkeeping and Personnel Training (§§112.7(e) and (f), 112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)):

Table G-5 Inspections, Testing, Recordkeeping and Personnel Training	
An inspection and/or testing program is implemented for all aboveground bulk storage containers and piping at this facility. *[§§112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)]*	☐
The following is a description of the inspection and/or testing program (e.g. reference to industry standard utilized, scope, frequency, method of inspection or test, and person conducting the inspection) for all aboveground bulk storage containers and piping at this facility:	
Inspections, tests, and records are conducted in accordance with written procedures developed for the facility. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph. *[§112.7(e)]*	☐
A record of the inspections and tests are kept at the facility or with the SPCC Plan for a period of three years. *[§112.7(e)]* **[See Inspection Log and Schedule in Attachment 3.1]**	☐
Inspections and tests are signed by the appropriate supervisor or inspector. *[§112.7(e)]*	☐

- **Must have a written inspection/testing program in place**
  - **Narratively describe the program (see next slide)**
  - **Must have written procedures for inspections, testing and records (see slide following for an example)**

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Inspection & Testing Requirements

- **In addition to the Page 5, Table G-5 inspection/testing requirements…**
  - **Section A, Page 9, Table G-10 contains several additional requirements for bulk tank/container inspections & testing**
  - **Section A, Page 10, Table G-10 contains additional requirements for:**
    - ✦Testing liquid level sensing (overfill prevention) devices
    - ✦Inspections of piping, valves and appurtenances
    - ✦Inspection/testing of buried piping (if it is exposed)
  - **Attachment 3.2, Page 17, Table G-17 contains US EPA's minimum required inspection schedule for bulk storage containers & tanks for Tier I qualified facilities**

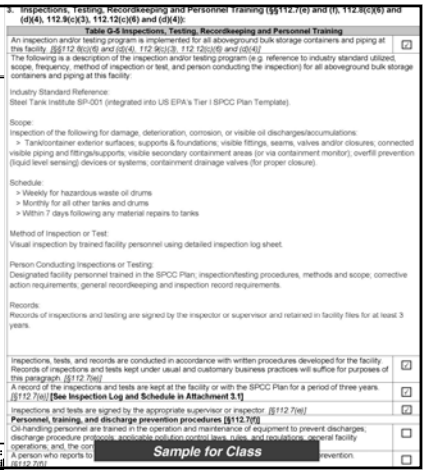
Written Inspection/Testing Program and Procedures

- **Example next… but in summary:**

- **Applies only to tanks & containers**
  - **Not oil filled equipment**
- **Make sure the inspection program description includes all tanks & containers**
  - ✦ If the inspections are different for different tanks or containers (e.g. waste vs product) – then state so in the description
  - **Description must include:**
    1. Reference to the industry inspection standard(s) used
    2. Scope of the inspection program (i.e. what conditions or items are being inspected and what tanks, containers & equipment, etc.)
    3. Schedule of inspections (how frequently are they being done)
    4. Methods of inspection or test (how are the inspections conducted)
    5. Person conducting inspections or testing (who will perform the inspections and what are their qualifications)
    6. Records (describe the inspection recordkeeping)

Sample

- ***YOUR* program may be different!**
  - **The narrative description must be specific to your facility**
- **… And obviously:**
  - **Implement as described!**



3. Inspections, Testing, Recordkeeping and Personnel Training (§§112.7(e) and (f), 112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)):

Table G-5 Inspections, Testing, Recordkeeping and Personnel Training

An inspection and/or testing program is implemented for all aboveground bulk storage containers and piping at this facility. *[§§112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)]*
The following is a description of the inspection and/or testing program (e.g. reference to industry standard utilized, scope, frequency, method of inspection or test, and person conducting the inspection) for all aboveground bulk storage containers and piping at this facility:

Industry Standard Reference:
Steel Tank Institute SP-001 (integrated into US EPA's Tier I SPCC Plan Template).

Scope:
Inspection of the following for damage, deterioration, corrosion, or visible oil discharges/accumulations:
> Tank/container exterior surfaces; supports & foundations; visible fittings, seams, valves and/or closures; connected visible piping and fittings/supports; visible secondary containment areas (or via containment monitor); overfill prevention (liquid level sensing) devices or systems; containment drainage valves (for proper closure).

Schedule:
> Weekly for hazardous waste oil drums
> Monthly for all other tanks and drums
> Within 7 days following any material repairs to tanks

Method of Inspection or Test:
Visual inspection by trained facility personnel using detailed inspection log sheet.

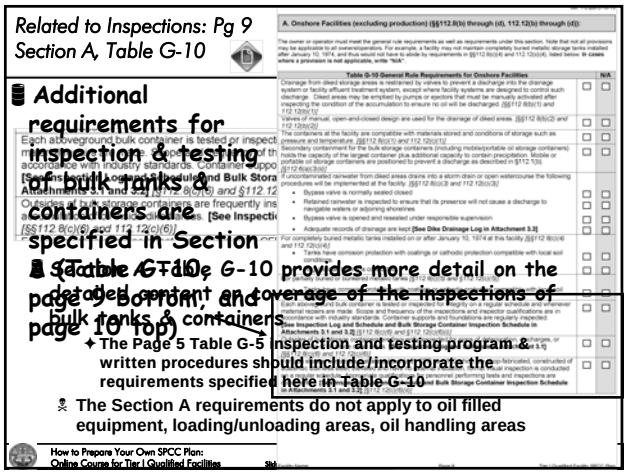
Person Conducting Inspections or Testing:
Designated facility personnel trained in the SPCC Plan; inspection/testing procedures, methods and scope; corrective action requirements, general recordkeeping and inspection record requirements.

Records:
Records of inspections and testing are signed by the inspector or supervisor and retained in facility files for at least 3 years.

Inspections, tests, and records are conducted in accordance with written procedures developed for the facility. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph. *[§112.7(e)]*
A record of the inspections and tests are kept at the facility or with the SPCC Plan for a period of three years. *[§112.7(e)]* **[See Inspection Log and Schedule in Attachment 3.1]**
Inspections and tests are signed by the appropriate supervisor or inspector. *[§112.7(e)]*
Personnel, training, and discharge prevention procedures [§112.7(f)]
Oil-handling personnel are trained in the operation and maintenance of equipment to prevent discharges, discharge procedure protocols, applicable pollution control laws, rules, and regulations, general facility operations, and, the con
A person who reports to prevention. *[§112.7(f)]*

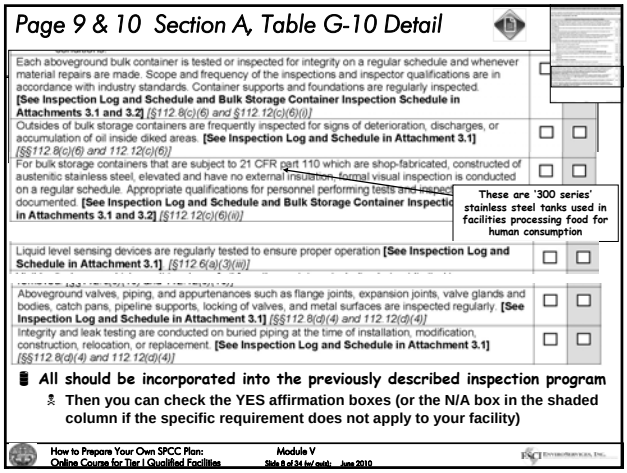
Sample for Class

Related to Inspections: Pg 9 Section A, Table G-10



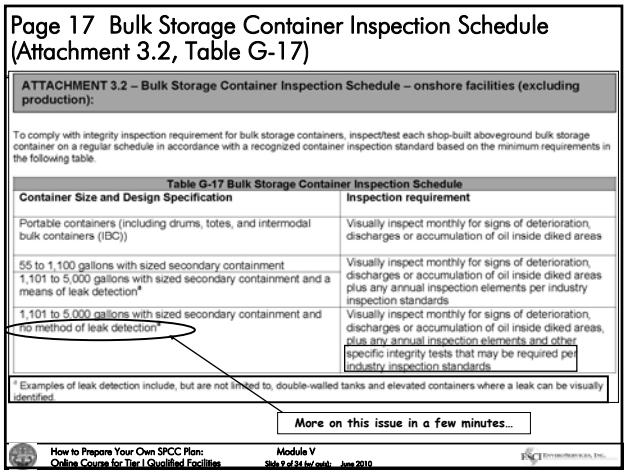
- **Additional requirements for inspection & testing of bulk tanks & containers are specified in Section A, Table G-10 (page 9 bottom, and page 10 top)**
  - **Table G-10 provides more detail on the detailed content an coverage of the inspections of bulk tanks & containers**
    - **The Page 5 Table G-5 inspection and testing program & written procedures should include/incorporate the requirements specified here in Table G-10**
  - **The Section A requirements do not apply to oil filled equipment, loading/unloading areas, oil handling areas**

Page 9 & 10 Section A, Table G-10 Detail



- **All should be incorporated into the previously described inspection program**
  - **Then you can check the YES affirmation boxes (or the N/A box in the shaded column if the specific requirement does not apply to your facility)**

Page 17 Bulk Storage Container Inspection Schedule (Attachment 3.2, Table G-17)



ATTACHMENT 3.2 – Bulk Storage Container Inspection Schedule – onshore facilities (excluding production):

To comply with integrity inspection requirement for bulk storage containers, inspect/test each shop-built aboveground bulk storage container on a regular schedule in accordance with a recognized container inspection standard based on the minimum requirements in the following table.

Table G-17 Bulk Storage Container Inspection Schedule

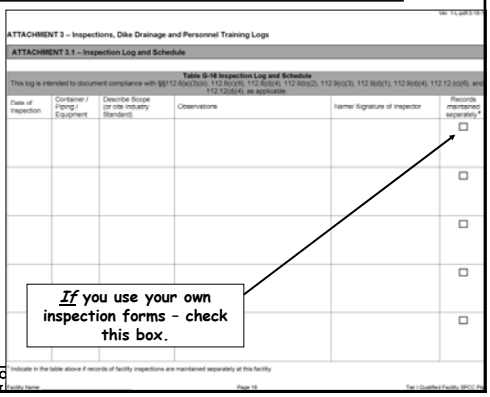
Container Size and Design Specification	Inspection requirement
Portable containers (including drums, totes, and intermodal bulk containers (IBC))	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas
55 to 1,100 gallons with sized secondary containment	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas plus any annual inspection elements per industry inspection standards
1,101 to 5,000 gallons with sized secondary containment and a means of leak detection*	
1,101 to 5,000 gallons with sized secondary containment and no method of leak detection*	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas, plus any annual inspection elements and other specific integrity tests that may be required per industry inspection standards

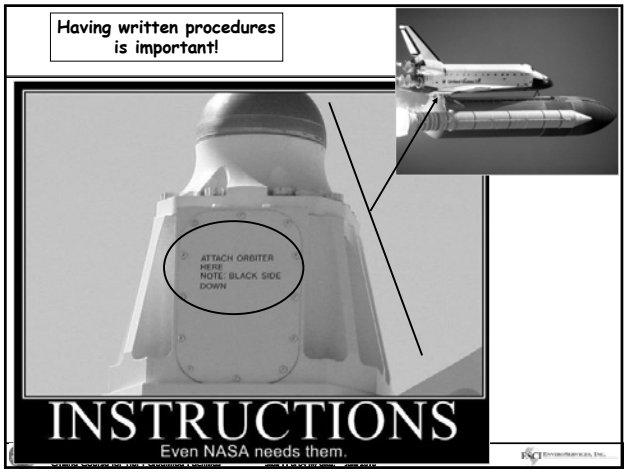
* Examples of leak detection include, but are not limited to, double-walled tanks and elevated containers where a leak can be visually identified.

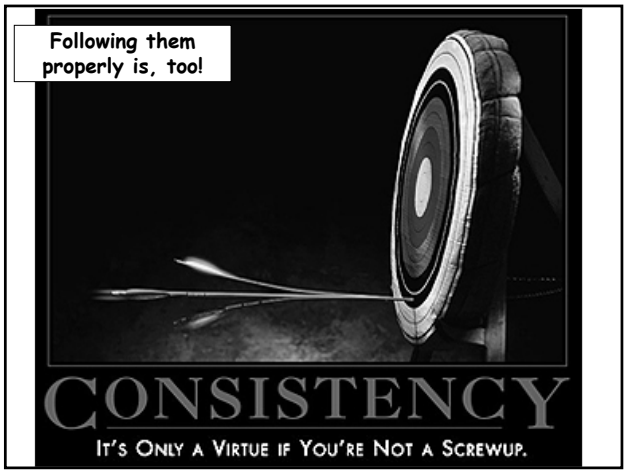
More on this issue in a few minutes…

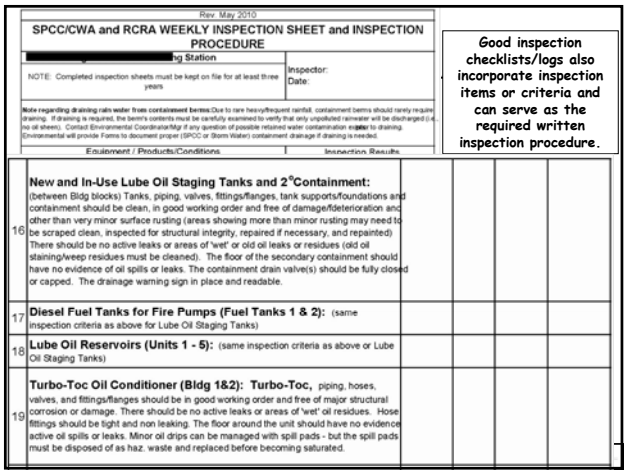
Page 16 Inspection Log and Schedule (Attachment 3.1, Table G-16)

- **Inspections must be documented**
  - This log is provided for your use
  - But you can use your own more detailed facility / tank specific inspection log
  - Examples follow









Rev. May 2010

SPCC/CWA and RCRA WEEKLY INSPECTION SHEET and INSPECTION PROCEDURE

[redacted]ng Station

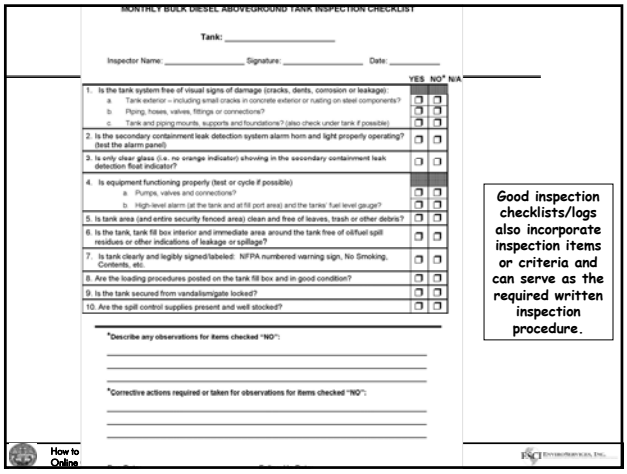
NOTE: Completed inspection sheets must be kept on file for at least three years

Inspector:
Date:

Note regarding draining rain water from containment berms: Due to rare heavy/frequent rainfall, containment berms should rarely require draining. If draining is required, the berm's contents must be carefully examined to verify that only unpolluted rainwater will be discharged (i.e., no oil sheen). Contact Environmental Coordinator/Mgr if any question of possible retained water contamination exists prior to draining. Environmental will provide Forms to document proper (SPCC or Storm Water) containment drainage if draining is needed.

	Equipment / Products/Conditions	Inspection Results			
16	**New and In-Use Lube Oil Staging Tanks and 2°Containment:** (between Bldg blocks) Tanks, piping, valves, fittings/flanges, tank supports/foundations and containment should be clean, in good working order and free of damage/deterioration and other than very minor surface rusting (areas showing more than minor rusting may need to be scraped clean, inspected for structural integrity, repaired if necessary, and repainted) There should be no active leaks or areas of 'wet' or old oil leaks or residues (old oil staining/weep residues must be cleaned). The floor of the secondary containment should have no evidence of oil spills or leaks. The containment drain valve(s) should be fully closed or capped. The drainage warning sign in place and readable.				
17	**Diesel Fuel Tanks for Fire Pumps (Fuel Tanks 1 & 2):** (same inspection criteria as above for Lube Oil Staging Tanks)				
18	**Lube Oil Reservoirs (Units 1 - 5):** (same inspection criteria as above or Lube Oil Staging Tanks)				
19	**Turbo-Toc Oil Conditioner (Bldg 1&2): Turbo-Toc,** piping, hoses, valves, and fittings/flanges should be in good working order and free of major structural corrosion or damage. There should be no active leaks or areas of 'wet' oil residues. Hose fittings should be tight and non leaking. The floor around the unit should have no evidence active oil spills or leaks. Minor oil drips can be managed with spill pads - but the spill pads must be disposed of as haz. waste and replaced before becoming saturated.				

Good inspection checklists/logs also incorporate inspection items or criteria and can serve as the required written inspection procedure.



MONTHLY BULK DIESEL ABOVEGROUND TANK INSPECTION CHECKLIST

Tank: _____

Inspector Name: _____ Signature: _____ Date: _____

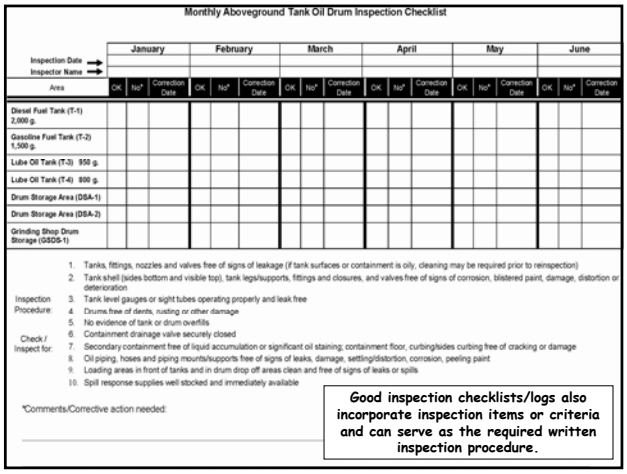
	YES	NO*	N/A
1. Is the tank system free of visual signs of damage (cracks, dents, corrosion or leakage):			
a. Tank exterior – including small cracks in concrete exterior or rusting on steel components?	☐	☐	
b. Piping, hoses, valves, fittings or connections?	☐	☐	
c. Tank and piping mounts, supports and foundations? (also check under tank if possible)	☐	☐	
2. Is the secondary containment leak detection system alarm horn and light properly operating? (test the alarm panel)	☐	☐	
3. Is only clear glass (i.e., no orange indicator) showing in the secondary containment leak detection float indicator?	☐	☐	
4. Is equipment functioning properly (test or cycle if possible)			
a. Pumps, valves and connections?	☐	☐	
b. High-level alarm (at the tank and at fill port area) and the tanks' fuel level gauge?	☐	☐	
5. Is tank area (and entire security fenced area) clean and free of leaves, trash or other debris?	☐	☐	
6. Is the tank, tank fill box interior and immediate area around the tank free of oil/fuel spill residues or other indications of leakage or spillage?	☐	☐	
7. Is tank clearly and legibly signed/labeled: NFPA numbered warning sign, No Smoking, Contents, etc.	☐	☐	
8. Are the loading procedures posted on the tank fill box and in good condition?	☐	☐	
9. Is the tank secured from vandalism/gate locked?	☐	☐	
10. Are the spill control supplies present and well stocked?	☐	☐	

*Describe any observations for items checked "NO":

*Corrective actions required or taken for observations for items checked "NO":

How to Online

Good inspection checklists/logs also incorporate inspection items or criteria and can serve as the required written inspection procedure.



Monthly Aboveground Tank Oil Drum Inspection Checklist

Inspection Date → / Inspector Name →	January			February			March			April			May			June		
Area	OK	No*	Correction Date	OK	No*	Correction Date	OK	No*	Correction Date	OK	No*	Correction Date	OK	No*	Correction Date	OK	No*	Correction Date
Diesel Fuel Tank (T-1) 2,000 g.																		
Gasoline Fuel Tank (T-2) 1,500 g.																		
Lube Oil Tank (T-3) 950 g.																		
Lube Oil Tank (T-4) 800 g.																		
Drum Storage Area (DSA-1)																		
Drum Storage Area (DSA-2)																		
Grinding Shop Drum Storage (GSDS-1)																		

Inspection Procedure: / Check / Inspect for:

1. Tanks, fittings, nozzles and valves free of signs of leakage (if tank surfaces or containment is oily, cleaning may be required prior to reinspection)
2. Tank shell (sides bottom and visible top), tank legs/supports, fittings and closures, and valves free of signs of corrosion, blistered paint, damage, distortion or deterioration
3. Tank level gauges or sight tubes operating properly and leak free
4. Drums free of dents, rusting or other damage
5. No evidence of tank or drum overfills
6. Containment drainage valve securely closed
7. Secondary containment free of liquid accumulation or significant oil staining; containment floor, curbing/sides curbing free of cracking or damage
8. Oil piping, hoses and piping mounts/supports free of signs of leaks, damage, settling/distortion, corrosion, peeling paint
9. Loading areas in front of tanks and in drum drop off areas clean and free of signs of leaks or spills
10. Spill response supplies well stocked and immediately available

*Comments/Corrective action needed:

Good inspection checklists/logs also incorporate inspection items or criteria and can serve as the required written inspection procedure.

Visual Inspection of Double Walled Tanks for Leaks?

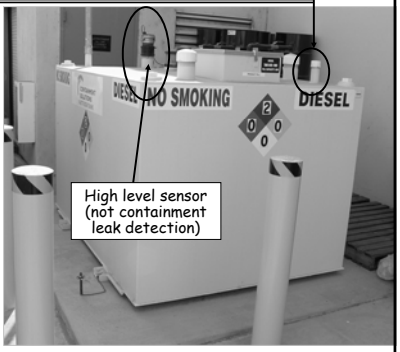
- How would a facility inspect a double wall tank to see if the primary tank is leaking?
  - Or inspect the containment for accumulation of oil?
- The outside you see here is the *outside* of the secondary containment
  - Not the outside of the primary tank

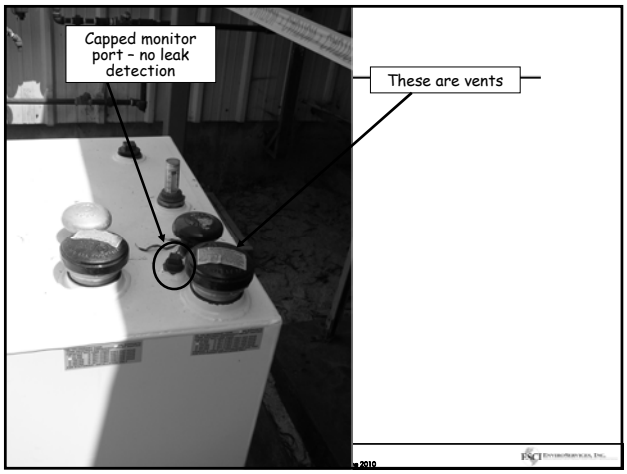
Visual Inspection of Integral Double Walled Tanks for Leaks?

- **Most double wall tanks have provisions for the use of interstitial space leak detection or monitoring**
  - **Some tanks *are* already equipped with leak detectors**
    - **Manufacturer or supplier optional equipment**
    - ✦Mechanical or electronic systems
      - **The indicator can be at/on the tank or may send a signal to a remote alarm panel**
  - **Most tanks are not so equipped**
    - ✦Facilities usually assume that visually inspecting the outside of the tank (the outside surface) is sufficient... but it's not
      - **A likely potential compliance issue (2002 US EPA memo raised the issue)**

IS Your Double Wall Tank Monitored?

- **In SPCC Plan**
  - **Plan should describe if interstitial space is monitored**
- **Is it??**
  - **Look at tank top for 'monitor port' or other sensor/ detector port**
    - ✦Is it just capped... or is there a sensor or monitor?





Manual Leak Detection?

- **Can you just unscrew the monitor port and "stick" the tank during your inspection?**
  - **e.g. using a stick with an absorbent end lowered to the bottom of the tank through the port to test for presence of oil at the bottom of the interstitial space**
  - **Yes… but if the port cap is not securely and properly replaced: significant risk of moisture intrusion and corrosion of primary tank**

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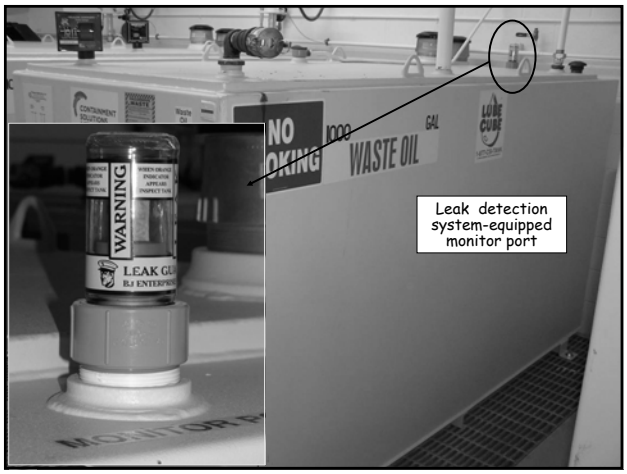

Page 5 Personnel, Training & Procedures Detail

Personnel, training, and discharge prevention procedures [§112.7(f)]	
Oil-handling personnel are trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan. *[§112.7(f)]*	☐
A person who reports to facility management is designated and accountable for discharge prevention. *[§112.7(f)]* Name/Title: _____	☐
Discharge prevention briefings are conducted for oil-handling personnel annually to assure adequate understanding of the SPCC Plan for that facility. Such briefings highlight and describe past reportable discharges or failures, malfunctioning components, and any recently developed precautionary measures. *[§112.7(f)]* **[See Oil-handling Personnel Training and Briefing Log in Attachment 3.4]**	☐

- **Training must be provided to oil-handling personnel at least once**
  - **With specific required subject coverage**
- **Spill prevention briefings must be conducted annually**
  - **Specific topics, as well**
- **This person could be you**

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Required Training & Annual Briefings

- **Two types of training is required by 40 CFR 112.7(f)**
  1. **Relatively detailed training of oil handling personnel: SPCC Plan and its implementation**
     - ✦ **No specified frequency**
     - ✦ **Specific subject content requirements**
  2. **Spill prevention briefings**
     - ✦ **Annual frequency**
     - ✦ **Specific subject content requirements**

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Required Training

1. **Must train oil-handling personnel**
   (40 CFR 112.7(f)(1))
   - **Training for oil-handling employees (and those with oil spill prevention responsibilities)**
   - **At a minimum, this training must include:**
     1. **Applicable pollution control laws and regulations**
     2. **Operation & maintenance of oil discharge prevention systems/equipment**
     3. **Discharge procedures protocols**
     4. **General facility operations**
     5. **Contents of the SPCC Plan**
   - **No training frequency specified in 40 CFR 112.7(f)(1)**

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Required Annual Briefings

2. **Must schedule and conduct annual discharge prevention briefings for oil-handling personnel**
   (40 CFR 112.7(f)(3))
   - **...to assure adequate understanding of the SPCC Plan for the facility**
   - **Briefings must highlight and describe:**
     - ✦ Known (harmful) discharges to navigable waters
     - ✦ Failures, malfunctioning components, and
     - ✦ Any recently developed precautionary measures

- **As long as training or briefings meet the topical coverage...Training and annual briefings can be integrated with other trainings**

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Page 19 (Attachment 3.4, Table G-19) Oil-Handling Personnel Training & Briefing Log

- **Make sure:**
  - **Description / Scope contains the required content (see the Page 5 detail)**
    - ✦Write it in the space each time
- **Or use your own training sign in sheet**
  - **Make sure it details the training session description or scope**
    - ✦And it meets the subject requirements (for training or annual briefings)

ATTACHMENT 3.4 – Oil-handling Personnel Training and Briefing Log

Table G-19 Oil-Handling Personnel Training and Briefing Log

Date	Description / Scope	Attendees

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