MD/DC Utilities Association 2021 Environmental Conference SPCC Inspections

Webinar Speakers

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September 30, 2021

Agenda
SPCC Inspections
- National Perspectives
- Region 3 Perspectives

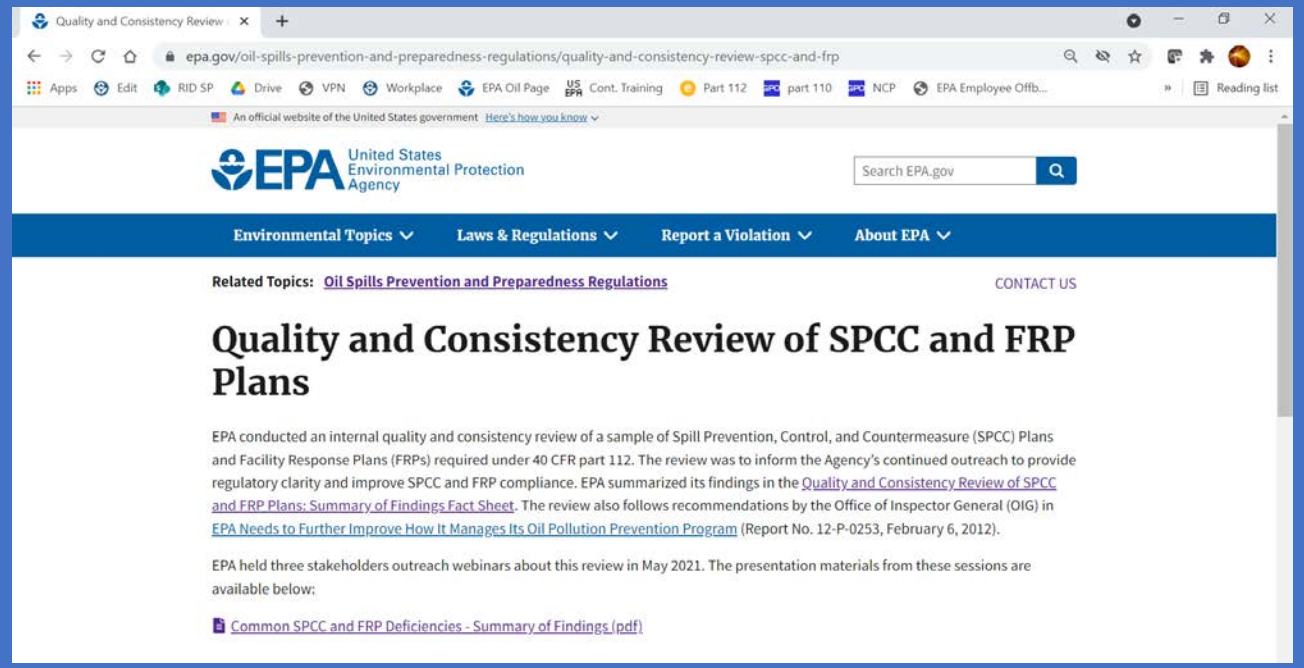
September 30, 2021

National Perspectives

- Common SPCC Summary of Findings
- Inspection Process

September 30, 2021

Overview of the EPA Oil Program Inspection Process



https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/quality-and-consistency-review-spcc-and-frp

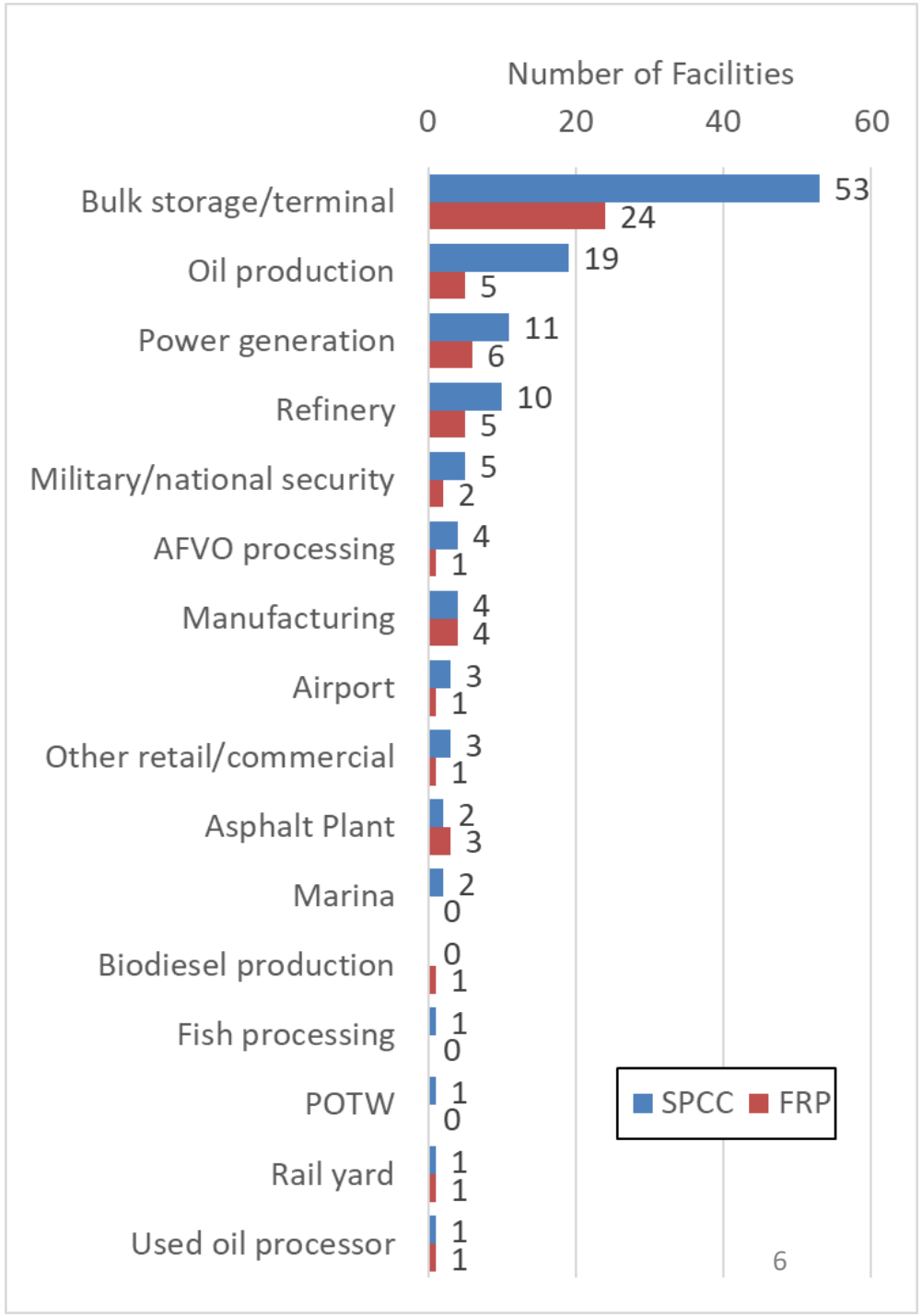
Data Collection Approach

- Surveyed EPA regional staff in all 10 regions
- Selected facilities for review:
  1. HQ staff selected facilities for which the Oil Program Database documented non-compliance
  2. HQ staff then targeted a subset of facilities that were both SPCC and FRP regulated, where possible.
  3. Regional staff reviewed inspection reports for selected facilities and used a standardized survey form to identify deficiencies and provide input on their broader inspection experience.
- HQ staff analyzed survey responses across regions to assess the quality and consistency of SPCC and FRP Plans and field implementation.
- Survey elements:
  - Facility sample:
    - Plan deficiencies
    - Field implementation deficiencies
  - Broader inspector experience relative to additional inspections not included in the specific sample analyzed:
    - Common deficiencies
    - Best practices

Survey Data

- Facility-specific reviews from sample of facilities across industry sectors:
  - 120 SPCC-regulated facilities
  - 55 FRP-facilities
- Focused on relatively large facilities that are also FRP-subject
  - Aggregate aboveground storage capacity: approximately 4,000 to 231 million gallons
  - Mostly bulk storage/terminal, followed by oil production, and power generation facilities
- Compared to SPCC-regulated facilities overall*
  - Similar sectors: Oil production (44%), followed by power generation (12%). Few bulk storage/terminal (1%)
  - SPCC facilities are generally smaller: Estimated 85% have 1,320-42,000 gallons aggregate aboveground storage capacity

* The survey sample is more similar to the FRP-regulated universe, which is characterized by larger aggregate storage capacities and a greater share of bulk storage/terminals



Survey Data Analysis Methodology

1

Code and standardize rule citations and categorize rule provisions

2

Group Plan and field implementation deficiencies by SPCC or FRP provision category

Categorize best practices based on rule provision

3

Summarize number of sampled facilities for each SPCC or FRP provision category

Extract inspector experience highlights or best practices by SPCC or FRP provision category

Outline of Findings

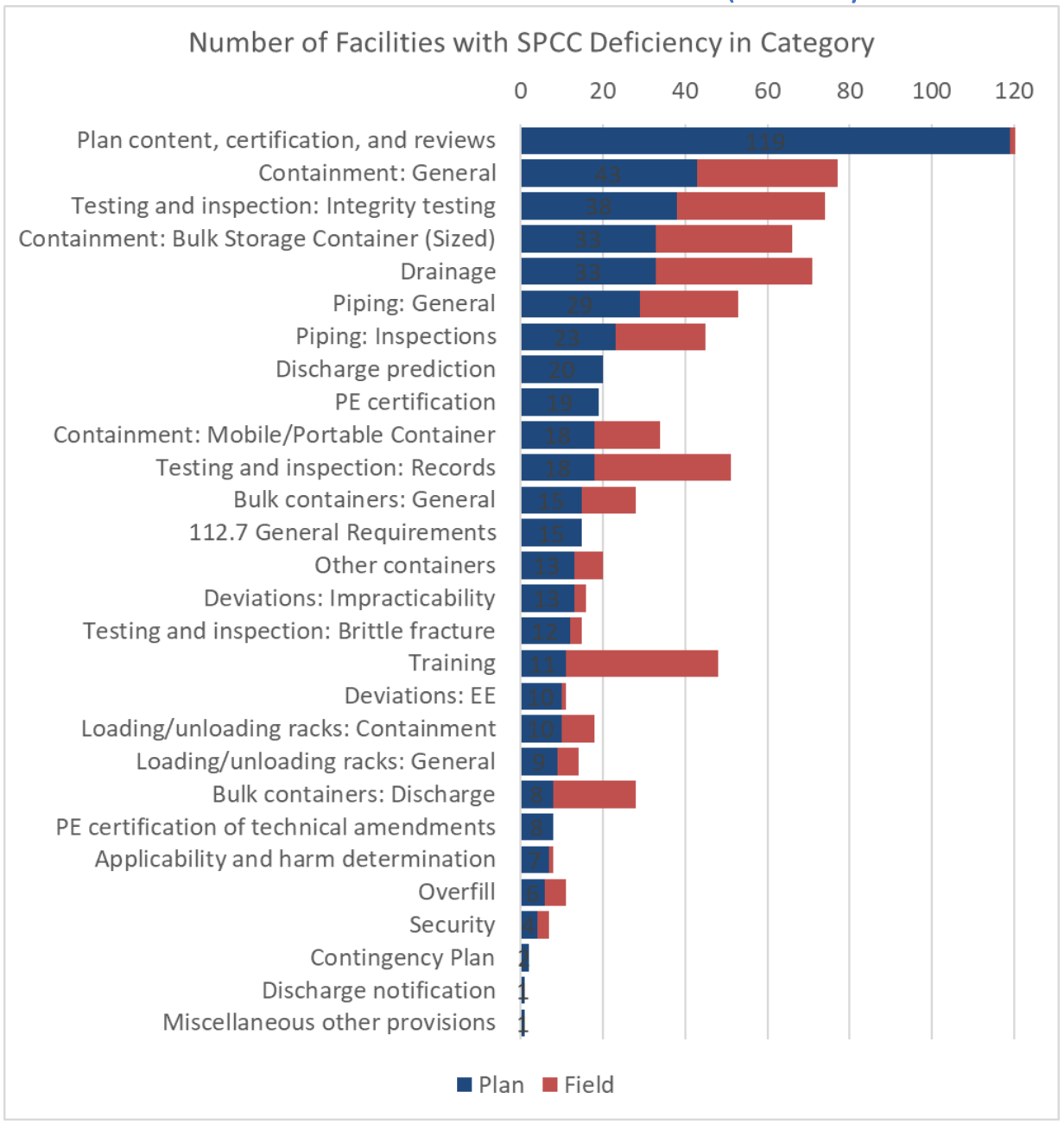
- Deficiency area rankings
- Details of top deficiency areas
  1. Summary of rule requirements
  2. Observed Plan and field implementation deficiencies
  3. Examples of best practices (where available)

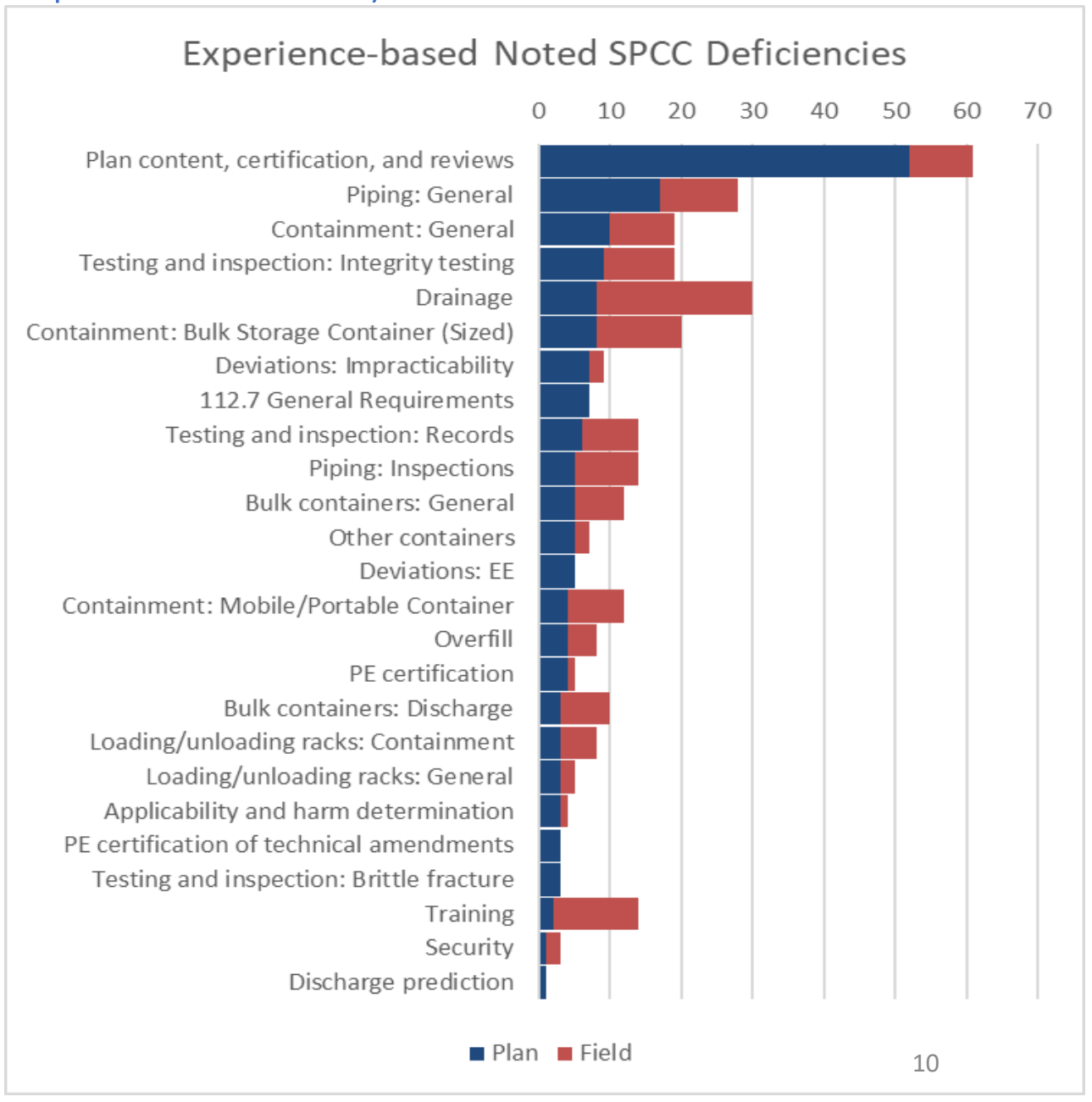
Top SPCC Deficiency Areas

Common Problems and Best practices

Most Common SPCC Deficiency Areas based on Sample of Facilities (Left) and Inspector Experience (Right)

(Listed by most-to-least frequent Plan deficiencies)





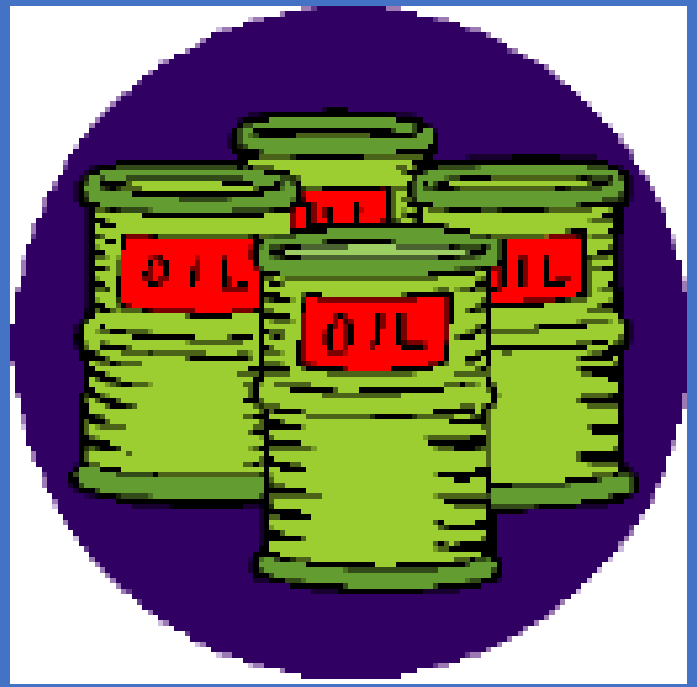
Top SPCC Deficiency Areas

- Plan Content, Certification and Reviews
- Containment: General
- Testing and Inspection: Integrity Testing
- Drainage
- Training
- Containment: Bulk Storage Container (Sized)
- Testing and Inspection: Records
- Piping

Summary and Next Steps

- Study identified several common SPCC and FRP deficiency areas across the subset of facilities reviewed.
- The common deficiencies were consistent with inspector experience at other regulated facilities.
- The findings highlight areas for additional outreach and communication to improve understanding of, and consistency with, regulatory requirements.
- See fact sheet summarizing findings on EPA's website:
  - https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/quality-and-consistency-review-spcc-and-frp-2

Overview of the EPA Oil Program Inspection Process



Why would you get inspected?

Triggering Events Initiating Inspections

Referrals (State or Local)

Spills

Multi-Media Inspections

Facility Incident

Targeted Outreach with Compliance Monitoring

Routine Compliance Monitoring

- Yep…you have won the inspection lottery

And your friendly EPA inspector shows up at your door…

Inspection Process

Roles of the Inspector

- Official Agency representative
- Fact finder
- Technical authority
- Enforcement case developer (in some cases)
- Enforcement presence
- Technical educator

General Categories of Inspections

- Routine compliance (part of planned inspection program)
- “For cause” in response to suspected spill or violation
- Case development support or follow-up
- Multi-media and technical assistance

Inspection Notice Types

- **Unannounced Inspections**
  - Knock Knock! Who's there? EPA. EPA Who?
  - EPA Inspectors are authorized to enter any facility during normal business hours
  - Legal basis for entry under 40 CFR part 112 is Clean Water Act (Sections 308 and 311[m])
  - May be longer due to onsite Plan review
- **Announced Inspections**
  - May request of SPCC Plan in advance
  - Facilitates coordination and cooperation
  - Allows for applicable records to be available for review at time of inspection

What to expect during a SPCC Inspection Overview

- Opening conference
- Discussion of facility operations and site specific SPCC elements
- Use of detailed SPCC checklist
- Review of Plan onsite
- Records review
- Facility walk-through
- Closing conference
- Follow-up
- In certain cases, enforcement

Opening Conference

- Establish inspection authority – (inspector will show credentials)
- EPA does not allow credentials to be photocopied
- Obtain a general overview of the facility and its organizational structure
- Discuss scope of inspection
- Make logistical arrangements (photo policies)
  - EPA does not sign waivers as a term of entry
  - EPA does sign login sheets for attendance purposes
- Obtain any missing information
- Discussion of facility and operations
- Provide clarifications on the SPCC Rule
- Review, acknowledge and comply with all facility health and safety requirements such as PPE, emergency evacuation routes, and meeting locations

Sample Inspection Checklist

U.S. ENVIRONMENTAL PROTECTION AGENCY
SPCC FIELD INSPECTION AND PLAN REVIEW CHECKLIST

ONSHORE FACILITIES (EXCLUDING OIL DRILLING, PRODUCTION AND WORKOVER)

Overview of the Checklist

This checklist is designed to assist EPA inspectors in conducting a thorough and nationally consistent inspection of a facility's compliance with the Spill Prevention, Control, and Countermeasure (SPCC) rule at 40 CFR part 112. It is a required tool to help federal inspectors (or their contractors) record observations for the site inspection and review of the SPCC Plan. While the checklist is meant to be comprehensive, the inspector should always refer to the SPCC rule in its entirety, the SPCC Regional Inspector Guidance Document, and other relevant guidance for evaluating compliance. This checklist must be completed in order for an inspection to count toward an agency measure (i.e., OEM inspection measures or GPRA). The completed checklist and supporting documentation (i.e. photo logs or additional notes) serve as the inspection report.

This checklist addresses requirements for onshore facilities including Tier II Qualified Facilities (excluding facilities involved in oil drilling, production and workover activities) that meet the eligibility criteria set forth in §112.3(g)(2).

Separate standalone checklists address requirements for:
Onshore oil drilling, production, and workover facilities including Tier II Qualified Facilities as defined in §112.3(g)(2);
Offshore drilling, production and workover facilities; and
Tier I Qualified Facilities (for facilities that meet the eligibility criteria defined in §112.3(g)(1))

Qualified facilities must meet the rule requirements in §112.6 and other applicable sections specified in §112.6, except for deviations that provide environmental equivalence and secondary containment impracticability determinations as allowed under §112.6.

The checklist is organized according to the SPCC rule. Each item in the checklist identifies the relevant section and paragraph in 40 CFR part 112 where that requirement is stated.

- Sections 112.1 through 112.5 specify the applicability of the rule and requirements for the preparation, implementation, and amendment of SPCC Plans. For these sections, the checklist includes data fields to be completed, as well as several questions with "yes," "no" or "NA" answers.
- Section 112.6 includes requirements for qualified facilities. These provisions are addressed in Attachment D.
- Section 112.7 includes general requirements that apply to all facilities (unless otherwise excluded).
- Sections 112.8 and 112.12 specify requirements for spill prevention, control, and countermeasures for onshore facilities (excluding production facilities).

The inspector needs to evaluate whether the requirement is addressed adequately or inadequately in the SPCC Plan and whether it is implemented adequately in the field (either by field observation or record review). For the SPCC Plan and implementation in the field, if a requirement is addressed adequately, mark the "Yes" box in the appropriate column. If a requirement is not addressed adequately, mark the "No" box. If a requirement does not apply to the particular facility or the question asked is not appropriate for the facility, mark as "NA". Discrepancies or descriptions of inspector interpretation of "No" vs. "NA" may be documented in the comments box subsequent to each section. If a provision of the rule applies only to the SPCC Plan, the "Field" column is shaded.

Space is provided throughout the checklist to record comments. Additional space is available as Attachment E at the end of the checklist. Comments should remain factual and support the evaluation of compliance.

Attachments

- Attachment A is for recording information about containers and other locations at the facility that require secondary containment.
- Attachment B is a checklist for documentation of the tests and inspections the facility operator is required to keep with the SPCC Plan.
- Attachment C is a checklist for oil spill contingency plans following 40 CFR 109. Unless a facility has submitted a Facility Response Plan (FRP) under 40 CFR 112.20, a contingency plan following 40 CFR 109 is required if a facility determines that secondary containment is impracticable as provided in 40 CFR 112.7(d). The same requirement for an oil spill contingency plan applies to the owner or operator of a facility with qualified oil-filled operational equipment that chooses to implement alternative requirements instead of general secondary containment requirements as provided in 40 CFR 112.7(k).
- Attachment D is a checklist for Tier II Qualified Facilities.
- Attachment E is for recording additional comments or notes.
- Attachment F is for recording information about photos.

Sample Inspection Checklist

FACILITY INFORMATION			
FACILITY NAME:			
LATITUDE:	LONGITUDE:	GPS DATUM:	
Section/Township/Range:	FRS#/OIL DATABASE ID:	ICIS#:	
ADDRESS:			
CITY:	STATE:	ZIP:	COUNTY:
MAILING ADDRESS (IF DIFFERENT FROM FACILITY ADDRESS – IF NOT, PRINT "SAME"):			
CITY:	STATE:	ZIP:	COUNTY:
TELEPHONE:	FACILITY CONTACT NAME/TITLE:		
OWNER NAME:			
OWNER ADDRESS:			
CITY:	STATE:	ZIP:	COUNTY:
TELEPHONE:	FAX:	EMAIL:	
FACILITY OPERATOR NAME (IF DIFFERENT FROM OWNER – IF NOT, PRINT "SAME"):			
OPERATOR ADDRESS:			
CITY:	STATE:	ZIP:	COUNTY:
TELEPHONE:	OPERATOR CONTACT NAME/TITLE:		
FACILITY TYPE:		NAICS CODE:	
HOURS PER DAY FACILITY ATTENDED:	TOTAL FACILITY CAPACITY:		
TYPE(S) OF OIL STORED:			
LOCATED IN INDIAN COUNTRY? ☐ YES ☐ NO RESERVATION NAME:			
INSPECTION/PLAN REVIEW INFORMATION			
PLAN REVIEW DATE:	REVIEWER NAME:		
INSPECTION DATE:	TIME:	ACTIVITY ID NO:	
LEAD INSPECTOR:			
OTHER INSPECTOR(S):			
INSPECTION ACKNOWLEDGMENT			
I performed an SPCC inspection at the facility specified above.			
INSPECTOR SIGNATURE:		DATE:	
SUPERVISOR REVIEW/SIGNATURE:		DATE:	

Sample Inspection Checklist

SPCC GENERAL APPLICABILITY—40 CFR 112.1		
IS THE FACILITY REGULATED UNDER 40 CFR part 112?		
The completely buried oil storage capacity is over 42,000 U.S. gallons, **OR** the aggregate aboveground oil storage capacity is over 1,320 U.S. gallons **AND**	x Yes	☐ No
The facility is a non-transportation-related facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, which due to its location could reasonably be expected to discharge oil into or upon the navigable waters of the United States	x Yes	☐ No

Sample Inspection Checklist

GENERAL SPCC REQUIREMENTS—40 CFR 112.7		PLAN	FIELD
Management approval at a level of authority to commit the necessary resources to fully implement the Plan[7]		x Yes □ No	
Plan follows sequence of the rule or is an equivalent Plan meeting all applicable rule requirements and includes a cross-reference of provisions		x Yes □ No □ NA	
If Plan calls for facilities, procedures, methods, or equipment not yet fully operational, details of their installation and start-up are discussed *(Note: Relevant for inspection evaluation and testing baselines.)*		x Yes □ No □ NA	
112.7(a)(2)	The Plan includes deviations from the requirements of §§112.7(g), (h)(2) and (3), and (i) and applicable subparts B and C of the rule, except the secondary containment requirements in §§112.7(c) and (h)(1), 112.8(c)(2),112.8(c)(11), 112.12(c)(2), and 112.12(c)(11)	□ Yes x No □ NA	
If **YES**	• The Plan states reasons for nonconformance	□ Yes □ No x NA	
	• Alternative measures described in detail and provide equivalent environmental protection (Note: Inspector should document if the environmental equivalence is implemented in the field, in accordance with the Plan's description)	□ Yes □ No x NA	□ Yes □ No x NA

Sample Offsite Compliance Monitoring (OfCM) SPCC Plan Review Worksheet

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFSITE COMPLIANCE MONITORING (OfCM) SPCC PLAN REVIEW WORKSHEET (REGION 5 PILOT)

ONSHORE FACILITIES (EXCLUDING OIL DRILLING, PRODUCTION AND WORKOVER)

Overview of the OfCM Worksheet

This OfCM Worksheet is designed to assist appropriately trained EPA staff[1] in conducting a thorough and nationally consistent OfCM review of a facility's Spill Prevention, Control, and Countermeasure (SPCC) Plan and the Plan requirements under the SPCC regulation at 40 CFR part 112. Consistent with the OECA April 24, 2020, memo entitled "Guidance on Key Off-Site Compliance Monitoring (OfCM) Activities and National Reporting" completion of this worksheet is considered an OfCM activity and not an inspection. Therefore, the Plan review and documentation on the OfCM Worksheet does not provide a complete review of a facility's compliance with the SPCC rule. As this is an *OfCM activity* and not an inspection, a completed OfCM worksheet and its associated plan review/facility discussions does not evaluate compliance with the facility's field implementation of the SPCC requirements, which is described in the facility SPCC Plan. Unlike this OfCM activity, an SPCC inspection must be documented using the national SPCC Field Inspection and Plan Review checklist, which EPA inspectors use to evaluate compliance of both the SPCC Plan's contents and the facility's implementation of the Plan in the field.

The OfCM Worksheet is a required tool to help appropriately trained staff record deficiencies revealed during the OfCM review of the SPCC Plan and during discussions with the facility staff. While the OfCM Worksheet is meant to be comprehensive, the reviewer should always refer to the SPCC rule in its entirety, the SPCC Regional Inspector Guidance Document, and other relevant guidance when evaluating compliance. This OfCM Worksheet must be completed by appropriately trained EPA staff for the OfCM activity (plan review) to count toward an agency measure (i.e., OEM/OECA measures or GPRA measures). A completed OfCM Worksheet and its supporting documentation (i.e. records, or additional notes) is intended to address the necessary content for an OfCM Worksheet (for measurement purposes). This OfCM Worksheet allows for the review of certain requirements for onshore facilities including Tier II Qualified Facilities (excluding facilities involved in oil drilling, production and workover activities) that meet the eligibility criteria set forth in §112.3(g)(2).

Separate, standalone OfCM Worksheets address requirements for:
Onshore oil drilling, production, and workover facilities including Tier II Qualified Facilities as defined in §112.3(g)(2);
Offshore drilling, production and workover facilities; and
Tier I Qualified Facilities (for facilities that meet the eligibility criteria defined in §112.3(g)(1))

Under the SPCC regulations, qualified facilities must meet the rule requirements in §112.6 and other applicable sections specified in §112.6, except for deviations that provide environmental equivalence and secondary containment impracticability determinations as allowed under §112.6.

The OfCM Worksheet is organized according to the SPCC rule. Each item in the OfCM Worksheet identifies the relevant section and paragraph in 40 CFR part 112 where that requirement is stated.

- Sections 112.1 through 112.5 specify the applicability of the rule and requirements for the preparation, implementation, and amendment of SPCC Plans. For these sections, the OfCM Worksheet includes data fields to be completed, as well as several questions with "yes," "no" or "NA" answers.
- Section 112.6 includes requirements for qualified facilities. These provisions are addressed in Attachment D.
- Section 112.7 includes general requirements that apply to all facilities (unless otherwise excluded).
- Sections 112.8 and 112.12 specify requirements for spill prevention, control, and countermeasures for onshore facilities (excluding production facilities).

The reviewer needs to evaluate whether the requirement is addressed adequately or inadequately in the SPCC Plan, including any communications with the facility personnel during the open and closing conference call(s) regarding any supporting records or documentation not specifically included with the Plan. For the SPCC Plan, discussions with facility staff or any related review of records, if a requirement is addressed adequately, mark the "Yes" box in the appropriate column. If a requirement is not addressed adequately, mark the "No" box. If a requirement does not apply to the particular facility or the question asked is not appropriate for the facility, mark as "NA". Discrepancies or descriptions of the reviewer's interpretation of "No" vs. "NA" may be documented in the comments box subsequent to each section.

[1] For the purposes of the OfCM Worksheet, appropriately trained staff means EPA staff, grant or contractor employees that have met all the 3500.1 training requirements for Oil Program Facility Inspectors and are credentialed as an inspector.

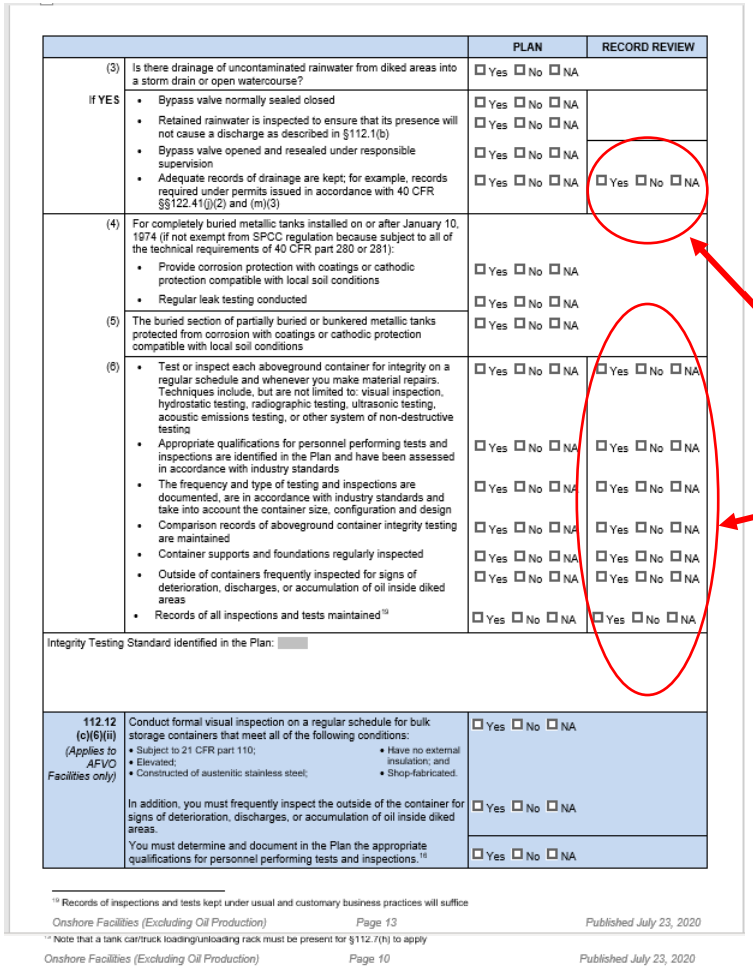
A tool to identify and record deficiencies revealed during an offsite SPCC Plan review and discussions with facility staff. An OfCM SPCC Plan Review is NOT an inspection.

- Utilized to help regions prioritize the need for onsite inspections when resources (i.e. travel funds, staff) are limited and during periods of constricted field work (i.e. severe weather, pandemics).

Inspector reviews the SPCC Plan, completes the OfCM Worksheet and conducts an on-line virtual video (i.e. MS Teams) meeting with facility staff.

- After the opening conference discussion, facility staff is asked questions regarding the rule requirements relative to facility operations with specific attention to any areas of the Plan that had raised questions during the plan review; and the facility staff displays rule required records digitally through the video and/or screen sharing process. The virtual meeting ends with a closing conference.

Sample OfCM SPCC Plan Review Worksheet



		PLAN	RECORD REVIEW
(3)	Is there drainage of uncontaminated rainwater from diked areas into a storm drain or open watercourse?	☐ Yes ☐ No ☐ NA	
If YES	• Bypass valve normally sealed closed	☐ Yes ☐ No ☐ NA	
	• Retained rainwater is inspected to ensure that its presence will not cause a discharge as described in §112.1(b)	☐ Yes ☐ No ☐ NA	
	• Bypass valve opened and resealed under responsible supervision	☐ Yes ☐ No ☐ NA	
	• Adequate records of drainage are kept; for example, records required under permits issued in accordance with 40 CFR §§122.41(j)(2) and (m)(3)	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
(4)	For completely buried metallic tanks installed on or after January 10, 1974 (if not exempt from SPCC regulation because subject to all of the technical requirements of 40 CFR part 280 or 281):		
	• Provide corrosion protection with coatings or cathodic protection compatible with local soil conditions	☐ Yes ☐ No ☐ NA	
	• Regular leak testing conducted	☐ Yes ☐ No ☐ NA	
(5)	The buried section of partially buried or bunkered metallic tanks protected from corrosion with coatings or cathodic protection compatible with local soil conditions	☐ Yes ☐ No ☐ NA	
(6)	• Test or inspect each aboveground container for integrity on a regular schedule and whenever you make material repairs. Techniques include, but are not limited to: visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other system of non-destructive testing	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
	• Appropriate qualifications for personnel performing tests and inspections are identified in the Plan and have been assessed in accordance with industry standards	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
	• The frequency and type of testing and inspections are documented, are in accordance with industry standards and take into account the container size, configuration and design	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
	• Comparison records of aboveground container integrity testing are maintained	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
	• Container supports and foundations regularly inspected	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
	• Outside of containers frequently inspected for signs of deterioration, discharges, or accumulation of oil inside diked areas	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
	• Records of all inspections and tests maintained[19]	☐ Yes ☐ No ☐ NA	☐ Yes ☐ No ☐ NA
Integrity Testing Standard identified in the Plan:			
112.12 (c)(6)(ii) *(Applies to AFVO Facilities only)*	Conduct formal visual inspection on a regular schedule for bulk storage containers that meet all of the following conditions: • Subject to 21 CFR part 110; • Elevated; • Constructed of austenitic stainless steel; • Have no external insulation; and • Shop-fabricated.	☐ Yes ☐ No ☐ NA	
	In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas.	☐ Yes ☐ No ☐ NA	
	You must determine and document in the Plan the appropriate qualifications for personnel performing tests and inspections.[18]	☐ Yes ☐ No ☐ NA	

[19] Records of inspections and tests kept under usual and customary business practices will suffice

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[18] Note that a tank car/truck loading/unloading rack must be present for §112.7(h) to apply

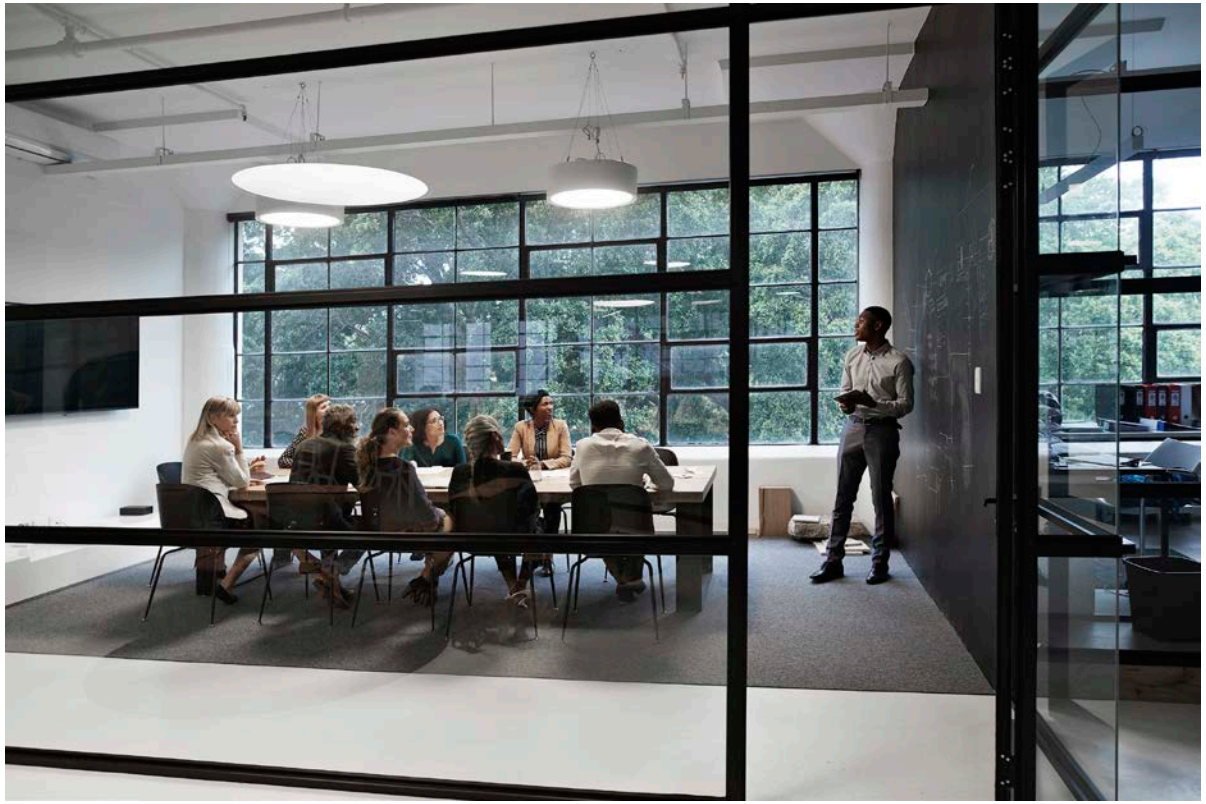
Onshore Facilities (Excluding Oil Production) *Page 10* *Published July 23, 2020*

The OfCM worksheet is based off the national inspection checklist with 1 major modification.

- There is no “Field” column on the OfCM worksheet because the inspector is <u>not</u> on site and cannot review onsite implementation of the plan in the field.
- The OfCM worksheet has a “Record Review” column for use when the inspector reviews SPCC rule required records using the screen sharing or video capabilities of the virtual meeting platform.

Closing Conference

- Fill in information gaps
- Answer questions
- Prepare documentation
  - Checklists and/or inspection report
  - EPA is not required to leave the checklist
- The EPA inspector does not typically provide Agency compliance determinations in the field
- EPA inspector may identify potential deficiencies in the field
- EPA inspector may provide compliance assistance as allowed by EPA policy
- EPA Return to Compliance Protocols which may be used in the Closing Conference



Post Inspection

- SPCC reporting on compliance monitoring observations
- Facility found in compliance
  - Follow up and case closure
- Facility found to out of compliance
  - Facility provided notice
    - Issuance of post inspection letter
    - Notice of Deficiencies
    - Notice of Violations
  - Expedited Settlement Agreements
  - EPA Orders under FWPCA 311c and 311 e
  - Enforcement Actions (covered later in detail)
    - Class I and Class II penalty actions
    - DOJ referrals
  - Compliance Action Enforcement/follow up
  - Case Closure

Region 3 Perspectives

- Overview of SPCC rule requirements (112.3-112.8)
- Deep Dive on 112.7(c)
- Deep Dive on 112.7(k)
- Examples of common deficiencies

September 30, 2021

Plan Content, Certification and Reviews – Requirements

112.3: Requirement to prepare and implement a Spill Prevention, Control, and Countermeasure Plan

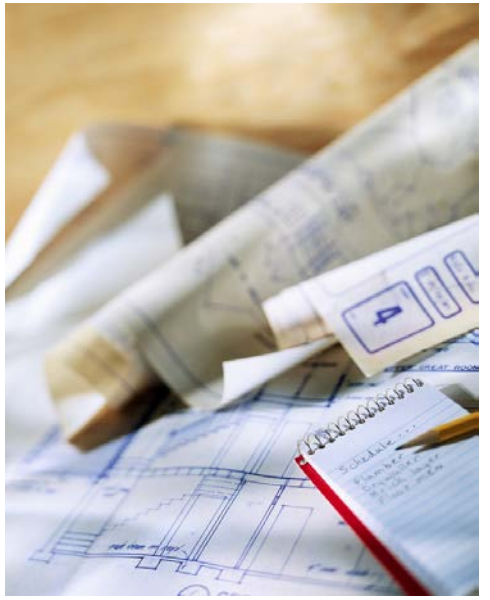
- Prepare and implement Plan **before** the start of operations
- Have a licensed Professional Engineer (PE) review and certify the Plan
- Maintain complete copy of the Plan at the facility and available for on-site review

112.5: Amendment of Spill Prevention, Control, and Countermeasure Plan by owners or operators

- Review and evaluate the Plan at least once every **five years**
- Amend the Plan when there is a change that materially affects discharge potential
- Have PE certify any technical amendments to the Plan

112.7: General requirements for Spill Prevention, Control, and Countermeasure Plans

- Discuss facility conformance with the requirements
- Describe the physical layout of the facility and include a facility diagram
- Address each container, discharge prevention measures, discharge or drainage controls, countermeasures, method of disposal, contact list and phone numbers
- Include prediction of the direction, rate of flow, and total quantity of oil which could be discharged.



Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Testing and inspection: Records – Requirements

112.7(e) Inspections, tests, and records.

- Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying professional engineer (PE) develop for the facility.
- Keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years.

Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Training – Requirements

- **112.7(f) Personnel, training, and discharge prevention procedures**.
  - (1) **Train your oil-handling personnel** in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.
  - (2) **Designate a person** at each applicable facility who is accountable for discharge prevention and who reports to facility management.
  - (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.

Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Drainage – Requirements (Non-Production)

112.8(b)/112.12(b) Facility drainage.

DIKED AREA DRAINAGE

(1) Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system

(2) Use valves of manual, open-and-closed design, for the drainage of diked areas.

UNDIKED AREA DRAINAGE

(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.

(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.

(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.

112.8(c)/112.12(c) Bulk storage containers.

(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) of this chapter.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets.

Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Containment: Bulk Storage Container (Sized) – Requirements

Bulk storage containers must meet general secondary containment requirements at 112.7(c)

- […] 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 […]

…and applicable sized secondary containment requirements

112.8(c)/112.12(c) Bulk storage containers.

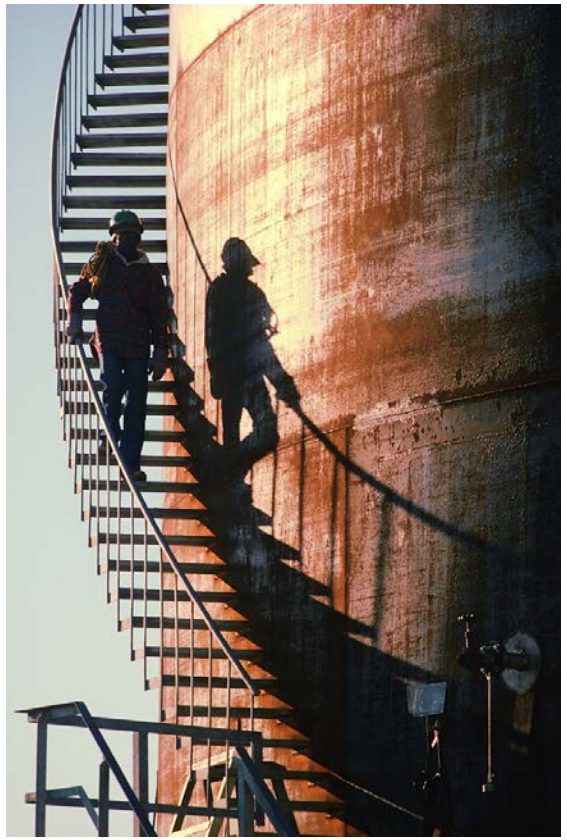
- (2) Construct all bulk storage container installations to provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation.
- Ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment 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.

Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Testing and Inspection: Integrity Testing – Requirements

112.8(c)/112.12(c) Bulk Storage Containers

- (6) Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs.
  - The frequency of and type of testing must take into account container size and design.
  - Combine visual inspection with another testing technique...
  - Keep comparison records.
  - Inspect the container's supports and foundations.
  - Frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas.



Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Containment: General – Requirements

- 112.7(c) Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in § 112.1(b).
- 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 or pipe, will not escape the containment system before cleanup occurs.
- At a minimum, you must use one of the following prevention systems or its equivalent:
  - (1) For onshore facilities: (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.
  - (2) For offshore facilities: (i) Curbing or drip pans; or (ii) Sumps and collection systems.

Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Containment: Passive vs. Active

- Active containment measures (e.g., absorbents, drain covers) are only as effective as their implementation

- Building structures do not always provide adequate secondary containment (drains, pipes, doors, etc.)

Containment: Passive vs. Active

Qualified Oil-filled Operational Equipment

- ...a facility with oil-filled operational equipment that meets the qualification criteria in paragraph (k)(1) of this sub-section may choose to implement...the alternate requirements as described in paragraph (k)(2)...in lieu of general secondary containment required in paragraph (c) of this section.

- 112.7(k)(1): ...a facility that has had no single discharge as described in § 112.1(b) from any oil-filled operational equipment exceeding 1,000 U.S. gallons or no two discharges as described in § 112.1(b) from any oil-filled operational equipment each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan certification date...; and

Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Qualified Oil-filled Operational Equipment

- 112.7(k)(2) If secondary containment is not provided for qualified oil-filled operational equipment pursuant to paragraph (c) of this section, the owner or operator of a facility with qualified oil-filled operational equipment must:
  - (i) Establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge; and
  - (ii) Unless you have submitted a response plan under § 112.20, provide in your Plan the following:
    - (A) An oil spill contingency plan following the provisions of part 109 of this chapter.
    - (B) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

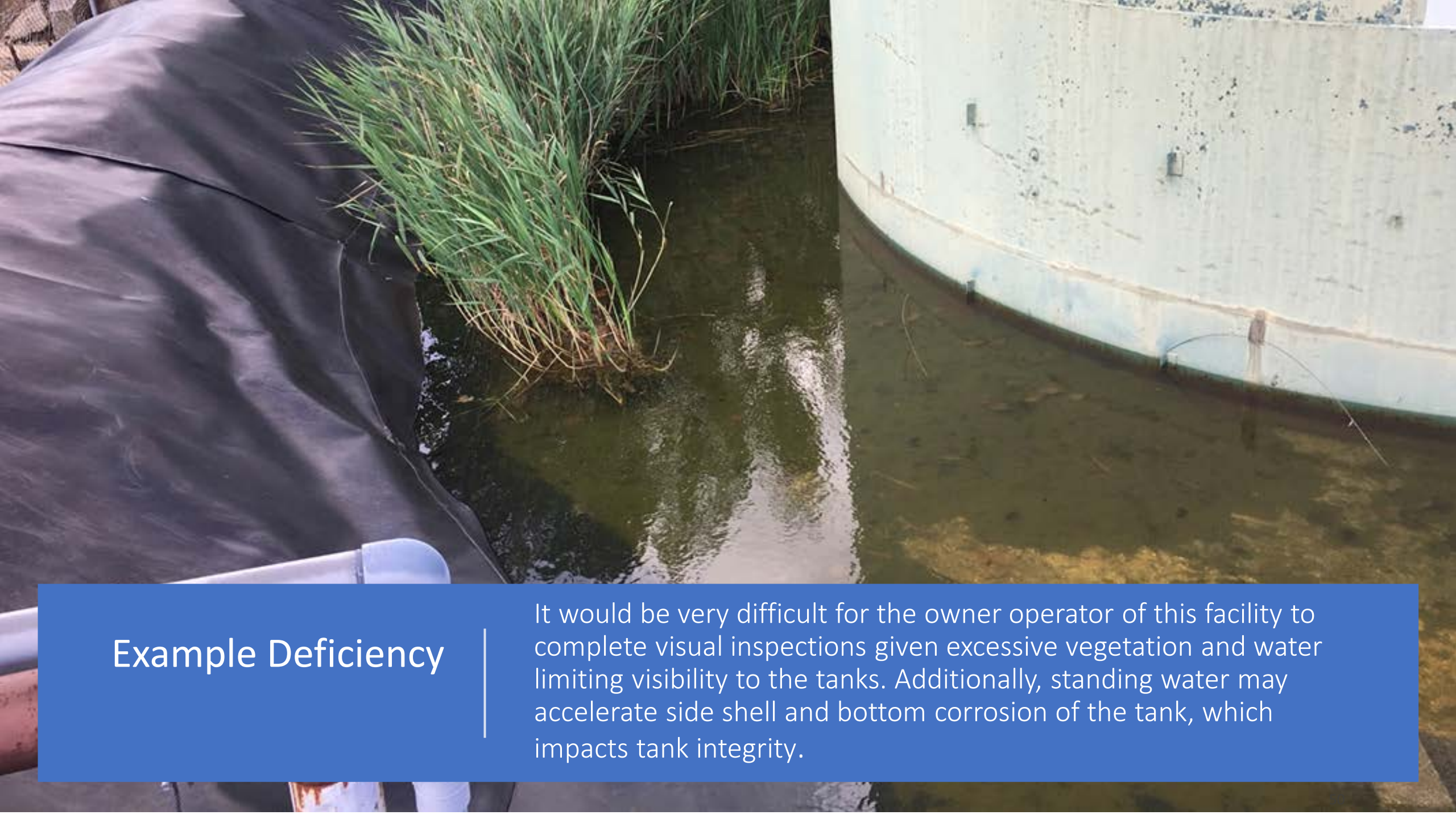
Note: This text was adapted from the rule. Refer to 40 CFR part 112 for the full text of the rule.

Example Deficiency

Transfer area lacks adequate general secondary containment.

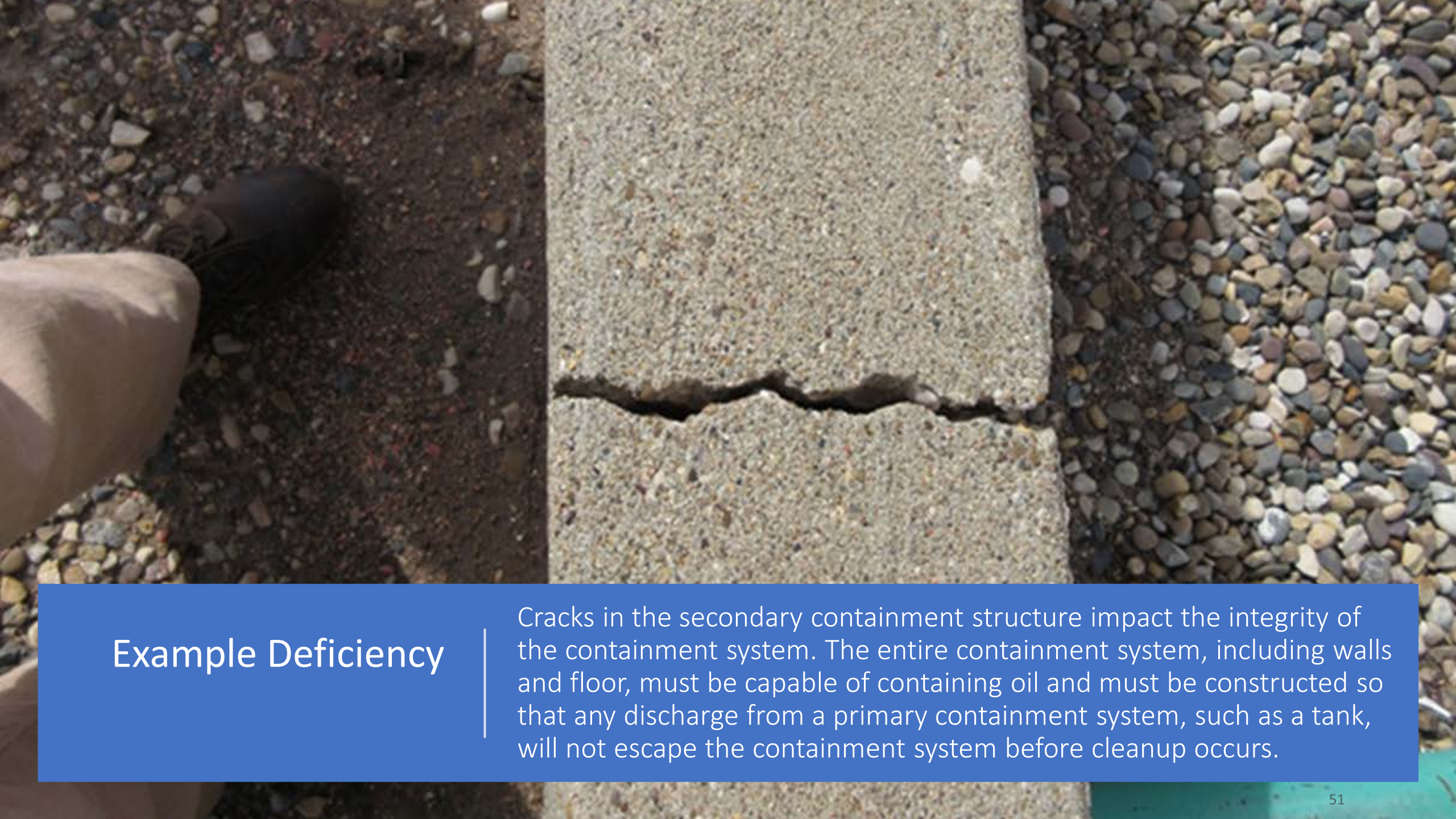
Example Deficiency

The Plan and its field implementation needs to include general containment for piping



Example Deficiency

It would be very difficult for the owner operator of this facility to complete visual inspections given excessive vegetation and water limiting visibility to the tanks. Additionally, standing water may accelerate side shell and bottom corrosion of the tank, which impacts tank integrity.



Example Deficiency

Cracks in the secondary containment structure impact the integrity of the containment system. 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.

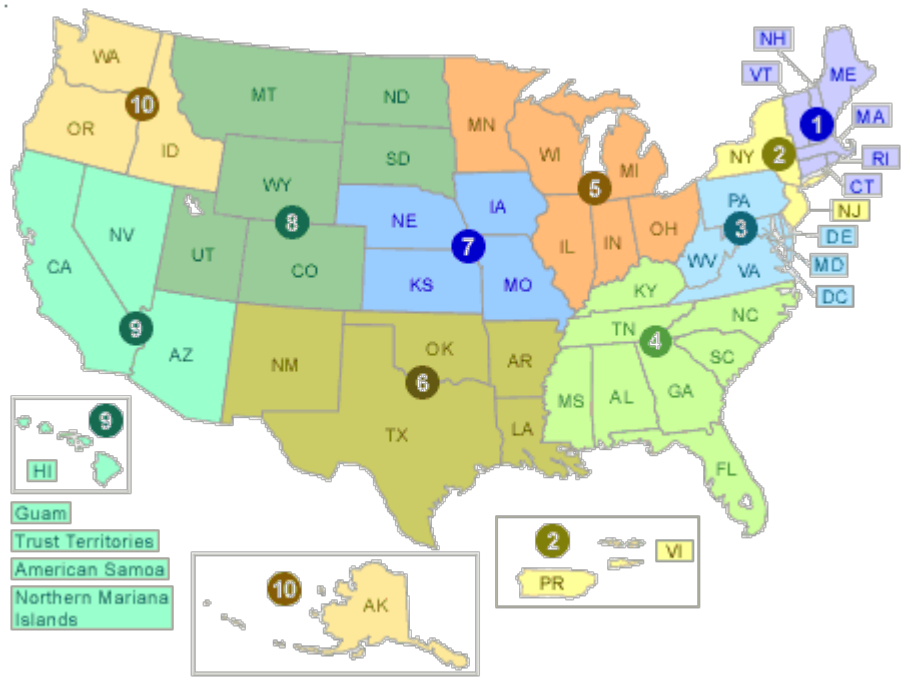
Example Deficiency

Dike wall penetrations must be engineered such that oil can't escape. Situations like those depicted above may lead to a significant reduction in the secondary containment dike capacity relative to the height of the pipe penetration where oil may escape.

Example Potential Deficiency	Leaking piping and valves. Inspection program is questionable.

For More Information

- EPA Reference Material, Guidance, and Hotline:
  - https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations
- EPA Regional Oil Program Contacts:
  - https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/contact-us-about-oil-spill-prevention-and
- EPA Oil Program National Subject Matter Experts:
  - Mark Howard (howard.markw@epa.gov) SPCC
  - Troy Swackhammer (swackhammer.j-troy@epa.gov) SPCC
  - Kristine Pordesimo (pordesimo.kristine@epa.gov) Oil General
- EPA Region 3 Oil Program Experts:
  - Mark Wejrowski (Wejrowski.Mark@epa.gov) Region Staff



Questions ?

September 30, 2021