



SPCC Plan Preparation Lessons Learned

EPAZ – Gatekeeper Conference

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**CDM
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Lessons Learned

1. Definition of Oil
2. Definition of Facility
3. Containers to be Included
4. Secondary Containment
5. Data Gathering
6. SPCC Plan Development
7. SPCC Plan Implementation



SPCC Background

- Oil Pollution Act – Amendment to the Clean Water Act
- Spill Prevention, Control, and Countermeasure Plan (SPCC)
- Oil Storage:
 - $\geq 1,320$ gal AST
 - $\geq 42,000$ gal UST
- Containers with Capacity ≥ 55 gal Count Toward Storage Capacity



Lesson Learned 1 - Definition of Oil

- § 112.2 - Oil means oil of any kind or in any form, including, but not limited to:
fats, oils, or greases of animal, fish, or marine mammal origin;
vegetable oils, include oils from seeds, nuts, fruits, or kernels;
and, other oils and greases including petroleum, fuel oil,
sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with
waste other than dredged soil

Lesson Learned 1 - Definition of Oils

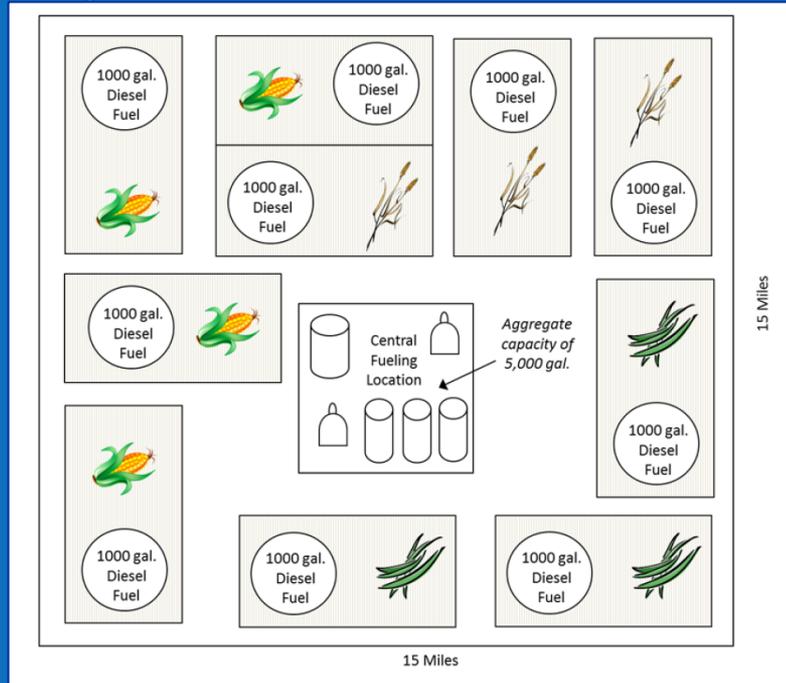
- Petroleum Oils
 - Unleaded gasoline, diesel fuel, engine oil, kerosene, asphalt (except hot mix)
- Synthetic Oils
 - Heat transfer fluids, hydraulic fluid, transmission fluids, metalworking fluids, compressor lubricants
- Vegetable Oils
 - Soybean oil, cottonseed oil, coconut oil, soapstock, peanut oil
- Animal Fats
 - Lard, fish oil, lanolin, whale oil
- Renewable Fuels
 - Bio diesel and Ethanol Flexfuel
- Others
 - Coal tar, creosote, silicon fluids, turpentine, oil mixed with waste

Lesson Learned 2 - Definition of a Facility?

- **§112.2** *Facility* means any mobile or fixed, onshore or offshore building, property, parcel, lease, structure, installation, equipment, pipe, or pipeline (other than a vessel or a public vessel) used in oil well drilling operations, oil production, oil refining, oil storage, oil gathering, oil processing, oil transfer, oil distribution, and oil waste treatment, or in which oil is used, as described in appendix A to this part. **The boundaries of a facility depend on several site-specific factors, including but not limited to, the ownership or operation of buildings, structures, and equipment on the same site and types of activity at the site. Contiguous or non-contiguous buildings, properties, parcels, leases, structures, installations, pipes, or pipelines under the ownership or operation of the same person may be considered separate facilities.** Only this definition governs whether a facility is subject to this part.

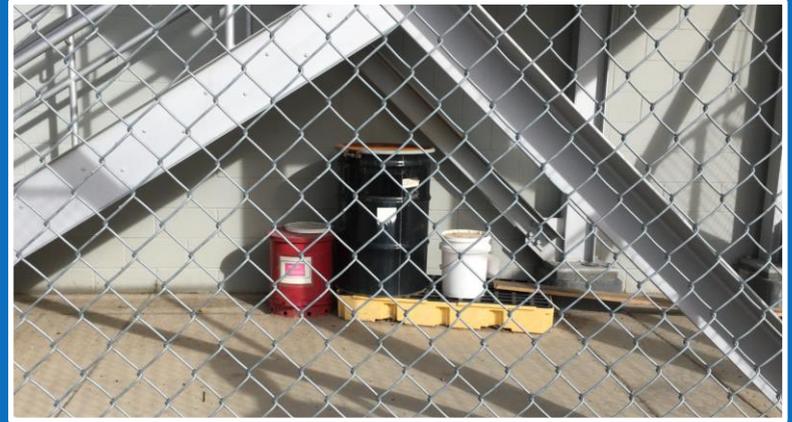
Lesson Learned 2 - Definition of a Facility?

- Each tract has a 1,000 gallon AST for diesel fuel used for fueling only the equipment operated on the tract. Each tract produces various types of crops and thus equipment is operated seasonally according to crop type and irrigation needs.



Lesson Learned 3 - What Needs to be Included?

- Tanks and Drums
- Oil Filled Equipment
- ≥ 55 Gal Capacity



- Drums Added Without Anyone's Knowledge
- Items Missed in Previous SPCC

Lesson Learned 3 - What Needs to be Included?

- Bulk Storage Tanks - ASTs and USTs
- Portable Containers - Drums and Totes



Lesson Learned 3 - What Needs to be Included?

- Oil-filled Operational Equipment
 - Hydraulic Systems
 - Lubricating Systems -
For Pumps, Compressors, and other Rotating Equipment
 - Gear Boxes
 - Machine Coolant Systems
 - Heat Transfer Systems
 - Transformers
 - Circuit Breakers



Lesson Learned 3 - What Needs to be Included?

- Transformers?



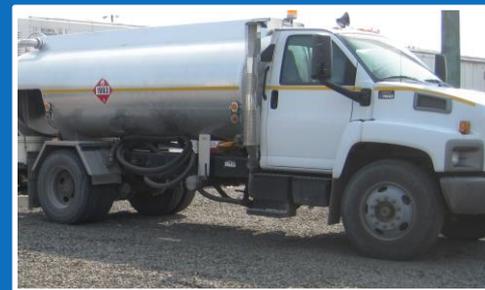
NO
If Owned by Utility

YES
If Owned by Facility

Lesson Learned 3 - What Needs to be Included?

Refueling Tanks – DOT or SPCC?

- Does the Vehicle have a License Plate?
 - No → Include in SPCC
 - Yes – Maybe Include in SPCC
- Does it Leave the Facility for any Reason other than Refilling Tank?
 - No – Vehicle/Trailer Always Stays at the Facility → Include in SPCC
- Does the Vehicle Store Fuel when Stored Onsite?
 - No, Always Empty when at the Facility (Except Reasonable Residue) – DOT
 - Yes, Remaining Fuel is Stored at Facility → Include in SPCC



Lesson Learned 3 - What Needs to be Included?

- Vehicles with Ancillary On-board Equipment - Tanks Containing Oil NOT Used for Motive Power (i.e. Hydraulic Tanks, Lubrication Tanks)
- Determine No. of Tanks and Size of Each Tank
- Examples:
 - Street Sweepers
 - Lifts



Lesson Learned 3 - What Needs to be Included?

Oil Water Separators (OWS)

- Wastewater Treatment
 - Exempt, Not Count Toward Facility Storage Capacity
- Secondary Containment (not intended for oil storage)
 - Does NOT Count toward Storage Capacity
 - OWSs are Subject to Secondary Containment Capacity Requirements
- Oil Production
 - Considered Bulk Storage Containers
 - Not Exempt and Count Toward Facility Storage Capacity
- Oil Recovery and/or Recycling
 - Considered Oil-filled Manufacturing Equipment
 - Not Exempt and Count Toward Facility Storage Capacity

Lesson Learned 3 - What Needs to be Included?

Exempt Containers

- Containers Used Exclusively for Wastewater Treatment
 - “Wastewater Treatment” Excludes Tanks for Production, Recovery, or Recycling of Oil



Lesson Learned 3 - What Needs to be Included? Exempt Containers

- Permanently Closed Containers



Lesson Learned 3 - What Needs to be Included?

Containers not Counted Toward Capacity – Discussed and Shown on Site Plan

- Pipelines that are not Contained Solely within the Facility
- USTs Covered under UST Rule



Lesson Learned 4 – Secondary Containment Requirements

Sized Secondary Containment

- Intended to Address a Major Container Failure
- For Bulk Storage Containers, Mobile/Portable Containers, etc.
- Contains the Entire Volume of the Largest Tank plus Freeboard (if tank is outside)

Lesson Learned 4 – Secondary Containment Requirements

Sized Secondary Containment

- Concrete Vaulted Tanks
- Double Walled Tanks
- Diked Containment Area
- Containment Pallet



Lesson Learned 4 – Secondary Containment Requirements

- What's Wrong with this Picture?



Insufficient
Capacity &
Overhanging
Containment

Pallet is Not Secondary
Containment

Lesson Learned 4 – Secondary Containment Requirements

General Secondary Containment Requirements

- “General Secondary Containment” Allowed Where Sized Secondary is Impractical
- Mobile Refuelers and other Non-Transportation-Related Trucks
- Transfer Areas or Piping
- Oil-filled Operational Equipment



Lesson Learned 4 – Secondary Containment Requirements

General Secondary Containment Requirements

- Establish and Document Inspection or Monitoring Program to Detect Equipment Failure and/or Discharge
- If Secondary Containment is Determined to be Impractical an Oil Contingency Plan may be Required (unless a Facility Response Plan has been submitted under Section 112.20)

Lesson Learned 5 - Data Gathering

- Request a List of Tanks, Equipment, Refuelers before Site Visit
- Bring Site Plan or Aerial to Note Locations of all Bulk Storage Containers, Oil Filled Equipment, Spill Response Supplies, Pipelines, etc.

Lesson Learned 5 - Data Gathering

- Photograph EVERY Oil Containing Tank & Equipment
 - If Unsure Equipment \geq 55 gal of Oil - Gather Information for Later Determination
- Verify Size of Containers through Nameplates or Measurements
 - Photograph EVERY Nameplate
- Photograph Surrounding Area
- Label Photos Promptly and in Order



Lesson Learned 5 - Data Gathering

- Locate Equipment Manuals for Equipment with Tanks (Fuel, Hydraulic, etc.)
- Understand Site Drainage
 - Determine Flow Directions for Oil Storage Areas
 - Identify Storm Drain Inlets, Outfalls, Retention/Detention Basins
- Note Location of Spill Response Materials



Lesson Learned 5 - Data Gathering

Discharge Prevention Measures

- Secondary Containment?
 - Secondary Containment Adequately Sized?
 - Record Dimensions to Check Size



Lesson Learned 5 - Data Gathering

Discharge Prevention Measures

- Overfill Protection Provided?
 - Tank has a Level Gauge?
 - What Methods are Used?
- Leak Detection Provided?



Detect Leaks in Double Wall Tanks



Electronic Monitoring Devices



Level Gauge

Lesson Learned 5 - Data Gathering

Discharge Prevention Measures

- Area Secure?
 - Lights? Fencing? Security Cameras? Security Personnel?
- Valves, Fill Ports, Locked?
- Check Structural Integrity – Tanks and Containment



Lesson Learned 5 - Data Gathering

- Listen
- Open Ended Questions



Lesson Learned 6 - Preparing an SPCC Plan

	Tier 1*	Tier 2*	Full Plan
Total Oil Storage	≤ 10,000 gal	≤ 10,000 gal	> 10,000 gal
Largest Single AST	< 5,000 gal	> 5,000 gal	
PE Certified	Not Required	Not Required	Yes



*Within 3 years prior to Plan certification facility **has not had**:

- A single discharge of oil to navigable water > 1,000 gal, or
- 2 discharges of oil to navigable water each > 42 gal within any 12-month period.

Lesson Learned 6 - Preparing an SPCC Plan

- Items that Change Frequently – Include as Attachment
 - Key Personnel
- Avoid Names in Text, Use Title
 - Maintenance Supervisor conducts inspections.
- List All Tanks for Your Reference
 - SPCC Plan Includes Only ≥ 55 gal
- Plan for Extra Drums
 - Number on-site may Vary
- Addressing Plan Redundancy
 - Table Stating Requirements and Sections

Lesson Learned 7 - Plan Implementation

Common Issues:

- No Training or Documentation of Training
- No Record of Inspections
- Secondary Equipment Not Maintained
- Oil-Filled Equipment Not Included
- Additional Drums Not Included

Questions?

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