

CALIF. ABOVEGROUND PETROLEUM STORAGE ACT

Spill Prevention, Control & Countermeasures (SPCC) PLAN

*San Bernardino County Fire Department
Business Assistance Workshop*

Presented by

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APSA & SPCC PLAN

Business Assistance Workshop

Sponsored and Coordinated by

**San Bernardino County
Fire Department
Hazardous Materials Division**



Welcome and Introductions

San Bernardino County Fire Department

- ❖ Hazardous Materials Division

ESCI EnviroServices, Inc.

- ❖ Steve Lichten



Oil Spill Prevention
Staff Ready to Serve

YOU?

- ❖ SPCC Plans... have one? ...need one? ...unsure?

Handouts

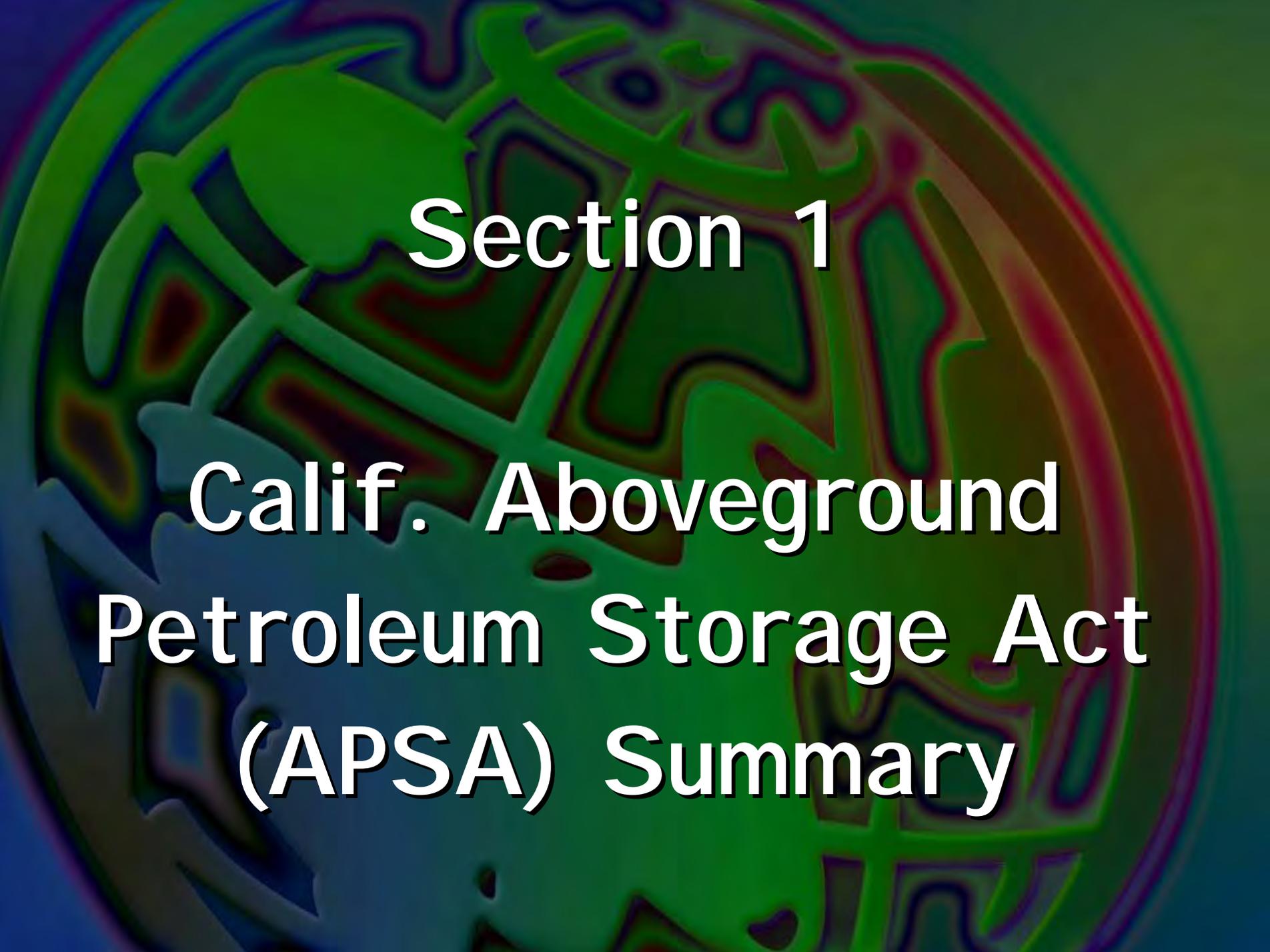
-  Presentation
-  Sample SPCC Table of Contents
-  Final SPCC Plan Template for Tier 1 Qualified Facilities
-  Uncle Steve's Spinning Disk o' Knowledge

Workshop Goals

- 🗄️ Provide you with information and guidance to assist you to:
 - ❖ Prepare or update an SPCC Plan or Plan Template:
 - Compliant with relevant regulations
 - Designed to be readily maintainable
 - Cost effective to prepare.
 - ❖ Implement an effective oil spill prevention program
 - ❖ Be in compliance with APSA and SPCC regulations

Topical Outline

1. Calif. Aboveground Petroleum Storage Act (APSA) Summary
2. Federal SPCC Rule Background
3. Applicability and Critical Definitions
4. SPCC Plan Basics (applicable to APSA tank facilities)
5. Secondary Containment and 'Impracticability'
6. Inspection, Evaluation and Testing
7. Training and Procedures
8. Spill Planning, Notification & Response
9. Tools and References



Section 1

Calif. Aboveground Petroleum Storage Act (APSA) Summary

Calif. Aboveground Petroleum Storage Act (APSA) - *HSC Chpt. 6.67*

- AB1130 (Laird, 2007)
 - Updated the 1990 APSA
- Transfers APSA administration and enforcement from SWRCB to CUPAs
- Applies to 'tank facilities' with $\geq 1,320$ gal. petroleum storage capacity
 - Several tank, content and/or facility-type exemptions
- Write and implement SPCC Plan consistent with 40 CFR 112:
 - If a federal SPCC Plan is required
 - If $\geq 1,320$ gal. of aboveground petroleum storage capacity

Calif. APSA - HSC Chpt. 6.67

- 🗄 'Tank facilities' to submit an annual 'Tank Facility Statement'
 - ❖ Essentially a list of 'tanks' and some other info
- 🗄 Tank facilities subject to APSA program fees beginning Jan. 1, 2010
- 🗄 SBCFD HMD must inspect tank facilities with over 10,000 gal. petroleum capacity at least every three years
 - ❖ NO impact on US EPA inspections/enforcement
 - ❖ Inspectors must be trained & certified first (~ mid 2009)
 - ❖ <10,000 gallon capacity facilities may be inspected as part of routine CUPA program surveillance inspections

APSA Fact Sheets, Guidance and FAQs

APSA Fact Sheets



Several guidance documents (Fact Sheets and Bulletins) posted

- ❖ From December 2007
- ❖ Covers both APSA and SPCC
- ❖ Will be updated over the Spring and Summer 2009



Links to US EPA Oil Spill Prevention Program website

- ❖ Your # 1 source for federal SPCC guidance and latest information



FAQ posted

<http://www.calepa.ca.gov/CUPA/Aboveground/>



Aboveground Petroleum Storage Act

Assembly Bill (AB) 113971 and 113972 was signed by Governor Arnold Schwarzenegger and chaptered on October 13, 2007, and went into effect January 1, 2008. On January 1, 2008, the Certified Unified Program Agencies (CUPA's) were vested with the responsibility and authority to implement the Aboveground Petroleum Storage Act (APSA).

- [APSA Training Schedule Spring 2008 \(PDF\)](#)
- [APSA Fact Sheet \(PDF\)](#)
- [APSA Scope of CUPA Implementation \(PDF\)](#)
- [Spill Prevention Control and Contingency \(SPCC\) Plan Requirements \(PDF\)](#)
- [Aboveground Petroleum Storage Act Bulletin](#)

Environmental Protection Trust Fund Allocation

Allocation of the moneys from the Environmental Protection Trust Fund (EPTF) to the CUPA's will be processed through grants, which include the completion of a grant application, a local resolution to accept the funds, a signed grant agreement, and invoice's documenting the CUPA's expenditures for the APSA Program.

Each CUPA is responsible for obtaining their allocated funds by submitting the grant application, local resolution, and signed grant agreement in a timely manner. In addition, no APSA fees may be assessed upon or collected from a regulated aboveground petroleum storage tank facility until January 1, 2010.

- [Agency for Fund Allocation and Process \(PDF\)](#)
- [Fund Distribution Formula \(PDF\)](#)
- [Fund Allocation for Each CUPA \(PDF\)](#)

Grant Application

Please submit a completed grant application no later than March 1, 2008, to the Secretary of the California Environmental Protection Agency (CalEPA). An extension to the deadline will be considered if needed. Once the grant application is received and processed, CalEPA will send the CUPA a grant agreement for signature. The signed grant agreement must be received by CalEPA no later than June 2, 2008. No grant agreement will be accepted after June 2, 2008. The initial disbursement of 80% of the CUPA's total allocation will be processed after the signed grant agreement is finalized and the local resolution is received.

- [Grant Application \(PDF | Word\)](#) and [Instructions \(PDF\)](#)
- [Sample Grant Application \(PDF | Word\)](#)
- [Sample Resolution \(PDF | Word\)](#)
- [Frequently Asked Questions about the APSA Grant \(PDF\)](#)
- [Grant Agreement Template \(PDF\)](#)

Additional Information

On January 15, 2008, the regulated business community was notified about the change in the law through [Assembly Bill \(AB\) 113971](#). Businesses with aboveground petroleum storage tanks are now regulated by their CUPA instead of the Regional Water Quality Control Board.

To refer sites for cleanup and abatement activities, CUPA's should contact their respective [Regional Water Quality Control Board coordinator's \(PDF\)](#).

For additional information on the federal SPCC rule requirements, visit [U.S. Environmental Protection Agency's Web Site](#).

Contact

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Jennifer Lorenzo at (916) 327-9560 or jlorenzo@calnet.ca.gov

Mailing address

California Environmental Protection Agency
Unified Program Section

APSA Fact Sheets, Guidance and FAQs

Frequently Asked Questions (FAQ) Document

CALIFORNIA ABOVEGROUND PETROLEUM STORAGE ACT (APSA)

FREQUENTLY ASKED QUESTIONS

PROGRAM IMPLEMENTATION & COMPLIANCE

 May be periodically updated

CALIFORNIA ABOVEGROUND PETROLEUM STORAGE ACT (APSA) FREQUENTLY ASKED QUESTIONS PROGRAM IMPLEMENTATION & COMPLIANCE

Not all tanks at oil production facilities are excluded. APSA specifically excludes an aboveground oil production tank subject to Section 3106 of the California Public Resources Code. Therefore, only those tanks or that portion of a tank facility directly associated with the production of oil are exempt if those tanks are under the supervision of the California Division of Oil, Gas and Geothermal Resources (DOGGR) within the Department of Conservation. These include the tanks holding or transferring the crude oil or crude products or used in the treatment or separation of the crude oil are not subject to the APSA requirements.

However, aboveground tanks used for refined petroleum product storage and supporting use at an oil production facility (such as fuel tanks, generator tanks, solvent tanks and containers) are defined as aboveground storage tanks under APSA and are not exempt.

13. ***Does the phrase "construction site" as used in section 25270.4.5 (b) of the Health and Safety code include quarries and construction "yards?"***

Yes, quarries are considered to be included in the meaning of "construction site."

However, a construction yard is not considered to be a construction site. Although not specifically defined in APSA, with the aid of reference to the Code of Federal Regulations, the phrase "construction site" should be construed as "any site involving the erection of buildings, roads, and other discrete structures and the installation of support facilities necessary for construction and utilization of such structures. The term "construction site" also includes any other land areas that involve land-disturbing excavation activities, including quarrying or other mining activities, where an increase in the runoff of sediment is controlled through the use of temporary sedimentation basins. A yard is a place where construction equipment is stored and maintained and subject to the requirements of APSA.

14. ***Construction activities are being performed on a portion of a manufacturing, commercial or maintenance facility with aboveground tanks. Is the entire facility considered a "construction site"?***

No, only the portion of the facility actually undergoing construction would be considered a "construction site."

15. ***Are federal facilities regulated under APSA?***

Yes. Per APSA, all (petroleum) tank facilities subject to 40 CFR Part 112 are subject to the requirements of APSA. 40 CFR Part 112.1 (c) states "as provided in section 313 of the Clean Water Act (CWA), departments, agencies, and instrumentalities of the Federal government are subject to this part to the same extent as any person.

US EPA Oil Spill / SPCC Website

The screenshot shows the US Environmental Protection Agency's website for Emergency Management. The main heading is "Emergency Management" with a search bar and navigation links. The primary content area is titled "Spill Prevention, Control, and Countermeasure (SPCC) Rule".

Final Rule to Amend Compliance Dates for SPCC Rule - January 2009
 EPA is extending the compliance dates for all facilities and establishing new compliance dates for those subject to the Spill Prevention, Control, and Countermeasure (SPCC) rule. This amendment extends the dates by which the owner or operator of an SPCC regulated facility must prepare or amend and implement its SPCC Plan, and also establishes the dates by which the owner or operator of a farm must prepare or amend and implement its SPCC Plan.
 Regulation: [Oil Pollution Prevention, Spill Prevention, Control, and Countermeasure \(SPCC\) Rule: Non-Transportation Related Petroleum Facilities Final Rule - Compliance Date Amendments \(RFR\)](#) (77 FR 41114 April 2012)
 Please note that we are providing this unofficial pre-publication copy of the Federal Register Notice (signed January 14, 2009) for public reference. This document has not been published in the Federal Register and is not an official version of the final rule. The official rule will be available here once it is published by the Federal Register Office.
 The final rule is effective on the date of publication in the Federal Register.

Proposed Rule to Exempt Certain Milk Containers and Associated Piping and Apparatuses from the SPCC Rule - January 2009
 EPA is proposing to exempt milk containers and associated piping and apparatuses that are constructed according to current applicable 3-4 Sanitary Standards, and are subject to the current applicable Grade "A" Pasteurized Milk Ordinance or an equivalent state dairy regulatory requirement.
 Regulation: [Oil Pollution Prevention, Spill Prevention, Control, and Countermeasure Rule Requirements - Proposal to Exempt Milk Containers and Associated Piping and Apparatuses from the SPCC Rule](#)
 Written comments must be received by February 17, 2009.

Finalized Amendments to the SPCC Rule - November 2008
 On December 3, 2008, the Federal Register published EPA's final rule to amend the SPCC rule in order to provide increased clarity, to tailor requirements to particular industry sectors, and to streamline certain requirements for those facility owners or operators subject to the rule, which should result in greater protection to human health and the environment.
 Regulation: [Oil Pollution Prevention, Spill Prevention, Control, and Countermeasure Rule Requirements - Amendments](#)
 The rule is effective February 3, 2009.

Revisions to the Regulatory Definition of "Navigable Waters" - November 2008
 On November 26, 2008, the Federal Register published EPA's direct final rule to revise the definition of "navigable waters" in the Spill Prevention, Control, and Countermeasure (SPCC) rule to comply with a court decision.
 Regulation: [Oil Pollution Prevention, Spill Prevention, Control, and Countermeasure Rule: Revisions to the Regulatory Definition of "Navigable Waters"](#)
 This rule is effective November 26, 2008.

The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for all oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelands. The rule requires specific facilities to prepare, amend, and implement SPCC Plans.

- [November 2009 Amendments to the SPCC Rule](#)
- [December 2006 Amendments to the SPCC Rule](#)
- [Compliance Dates](#)
- [SPCC Guidance for Regional Inspectors](#)
- [For More Information](#)

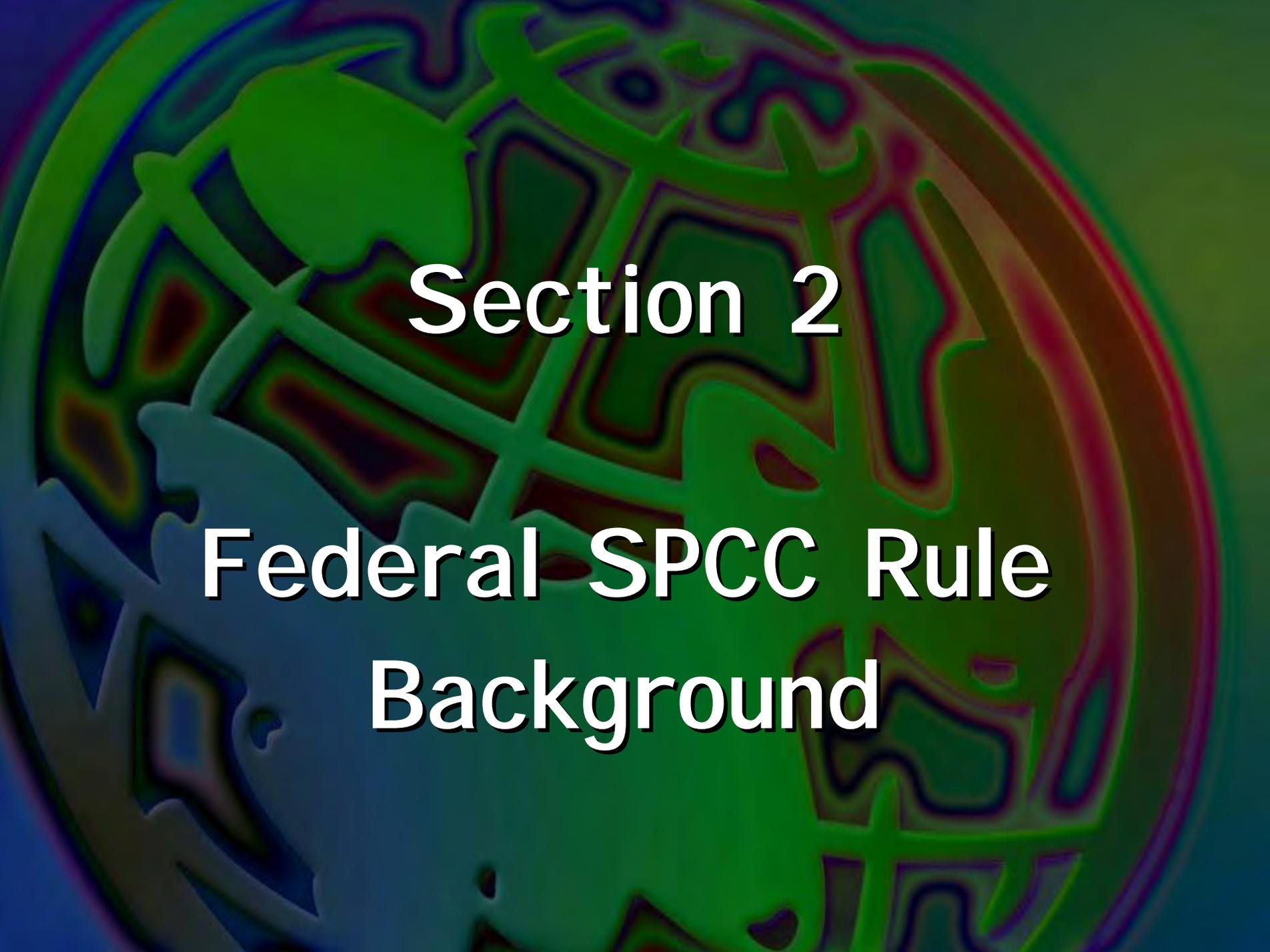
The SPCC rule is part of the [Oil Pollution Prevention](#) regulation, which also includes the [Facility Response Plan \(FRP\)](#) rule.

December 2006 Amendments to the SPCC Rule
 In December 2006, EPA Administrator Stephen L. Johnson signed a final rule to amend the Spill Prevention, Control, and Countermeasure (SPCC) rule at 40 CFR part 112. EPA amended the SPCC rule to address a number of issues raised by its 2002 final rule, including those pertaining to facilities with smaller oil storage capacities, qualified oil-fired operational equipment, motive power containers, and mobile refuelers. EPA also revised sections of the rule that are not appropriate for facilities with animal fats and vegetable oils, and extended the compliance dates for farms.

Compliance Dates
 Following the 2002 revisions to the SPCC rule, EPA extended the compliance dates for facilities to update (or for new facilities to prepare) and implement an SPCC Plan that complies with the revised requirements:

- In November 2008, EPA proposed to amend the SPCC rule compliance dates for 2009 facilities.

SPCC Guidance for Regional Inspectors
 EPA has developed an SPCC Guidance Document to assist regional inspectors in implementing the SPCC program and in understanding its applicability. The document is also available as a guide to owners and operators of facilities that may be subject to the requirements of the SPCC rule and the general public on how to create the SPCC rule for its implementation.



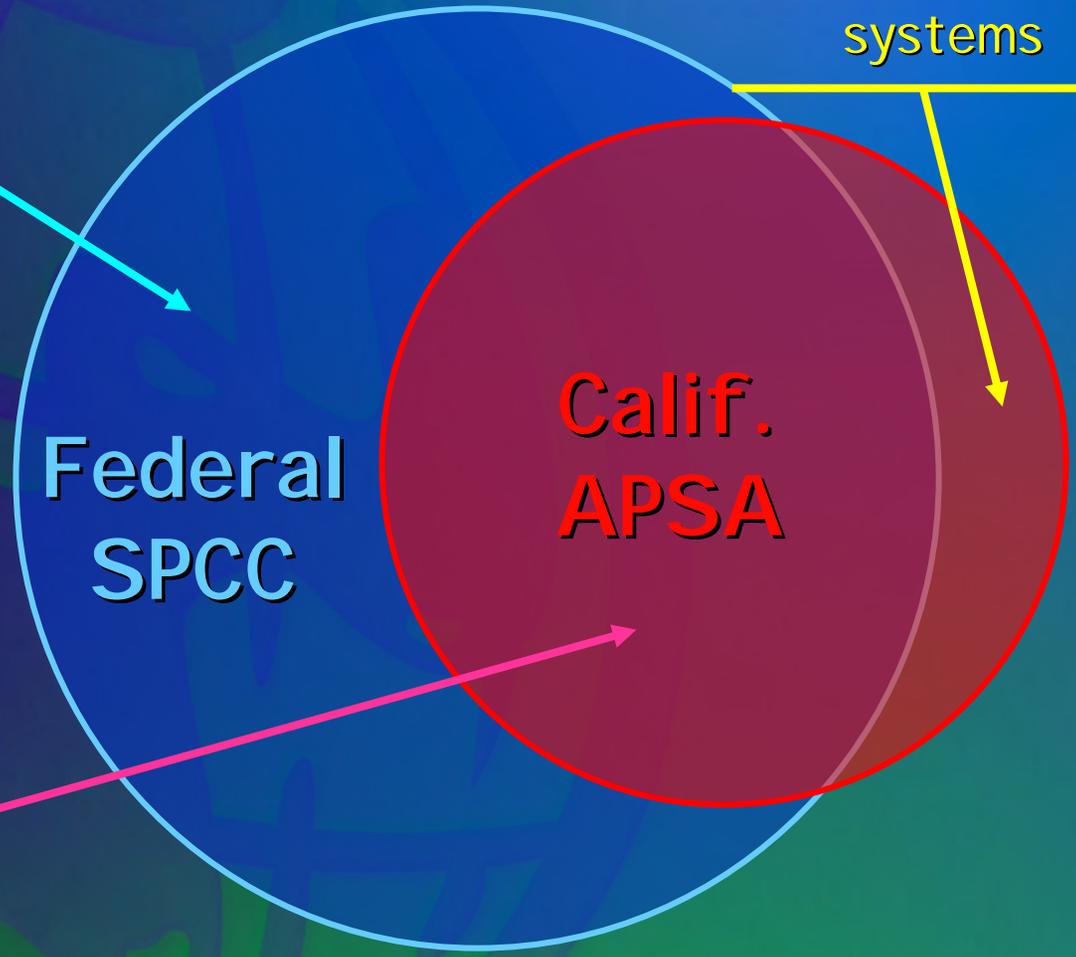
Section 2

Federal SPCC Rule Background

SPCC? I Thought It Was Only APSA!

- Non-petroleum oils
- Oil-filled electrical equipment
- Oil production tanks
- Farms/logging sites
- Construction sites
- Haz. waste facilities

- No navigable water risk
- Wastewater systems



Joint applicability

Basic Goals of SPCC Plans & Regulations

Purpose & Authority of 40 CFR 112

1. Prevent (but prepare for) oil spills into navigable waters and adjoining shorelines
 - ❖ NOTE: In Calif. – Navigable waters includes the storm drain system
2. Control oil spills getting into navigable waters
3. Clean-up oil spills that got into navigable waters (the countermeasures)



Regulations & Plans

Purpose & Authority of 40 CFR 112



Ensures **proactive** measures are used to prevent and control an oil discharge to navigable waters...

❖ Less emphasis on **after-the-fact or reactive** measures

SPCC rules require facilities to **prepare** and **implement** a site-specific SPCC Plan to address three areas:

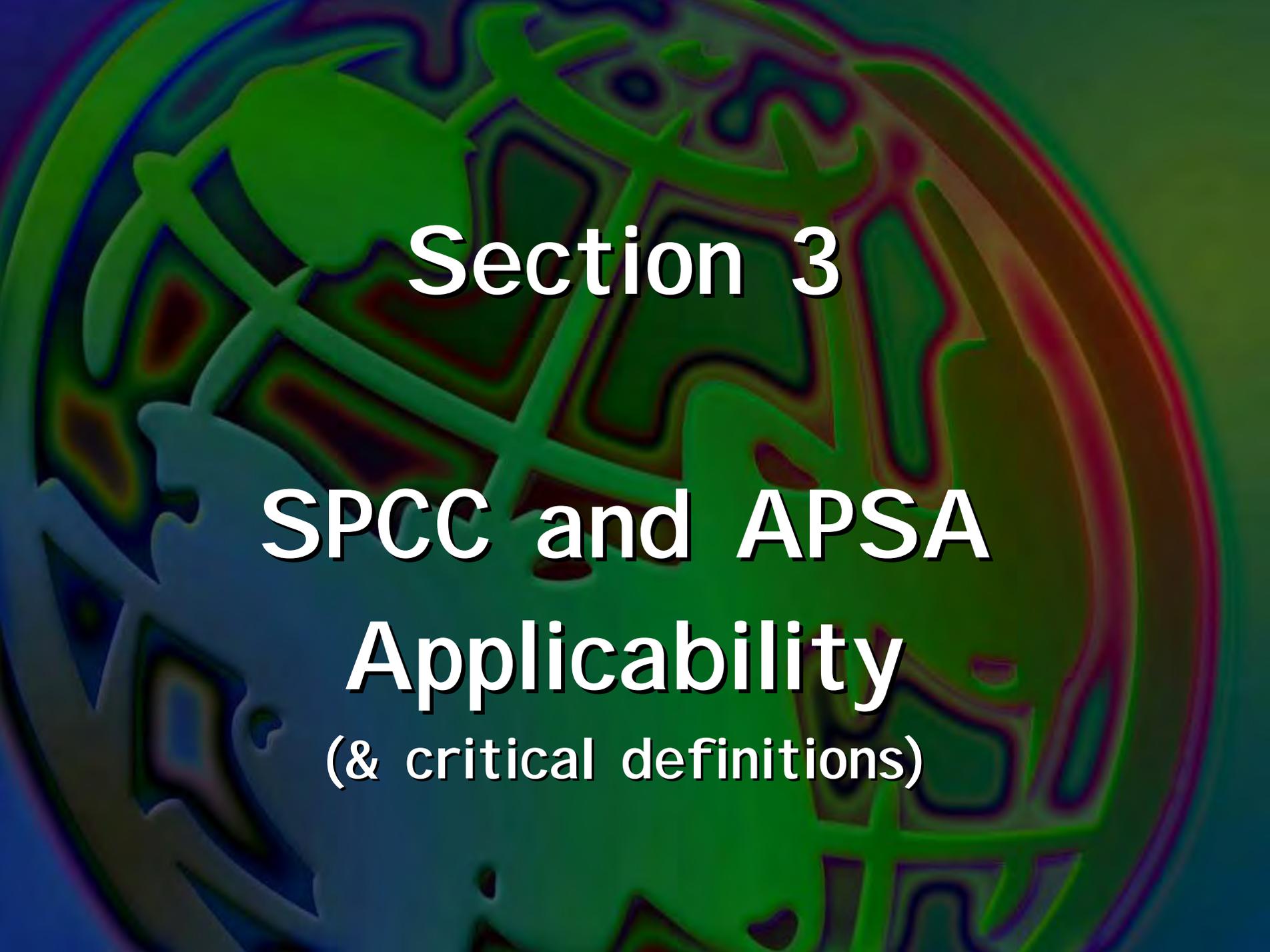
- ❖ *Operating procedures and other administrative measures*
- ❖ *Containment and other control measures*
- ❖ *Countermeasures and clean up measures*

Current Federal SPCC Compliance Dates

<u>A facility starting operation...</u>	<u>Must...</u>
On or before 8/16/02	Maintain existing SPCC Plan. Amend and implement updated Plan no later than 7/1/09
After 8/16/02 through 7/1/09	Prepare and implement SPCC Plan no later than 7/1/09
After 7/1/09	Prepare and implement Plan <u>before</u> beginning operations

SPCC Rule History

- Dec. 1973 SPCC Rule
- Amendments in 1994 & 2000
- Major amendment in July 2002
 - ❖ Various lawsuits... settled in March 2004
 - ❖ May 2004 Federal Register Notice re settlements
- Dec. 2006 Rule Amendment
- May 2007 Rule Extension
- Dec. 2008 Rule Amendment
 - ❖ Effective April 4, 2009



Section 3

SPCC and APSA

Applicability

(& critical definitions)

Applicability (*APSA Exemptions*)

Facility types excluded from APSA:

- ❖ Construction sites, nurseries, farms and logging sites
 - \leq 20K gal. per tank / \leq 100K gal. aggregate
 - Tank Facility Statement and fees still applicable
 - Conditionally APSA-excluded from SPCC Plan requirement
 - **STILL** federally (US EPA) regulated!
 - Must conduct daily inspections
 - Must allow CUPA to inspect
 - Secondary containment may be required by CUPA

Applicability (*APSA Exemptions*)

Tank types excluded from APSA:

- These tanks are not CUPA regulated under APSA
 - Do not count for 1,320 gal. facility capacity threshold
 - CUPA does not inspect under APSA (except to verify)
 - but ARE still US EPA regulated
- ❖ CUPA-regulated USTs
- ❖ Most oil-filled electrical equipment
- ❖ Crude oil production tanks
- ❖ Boilers & pressure vessels
- ❖ Waste oil tanks covered under PBR Tiered Permit and at DTSC permitted hazardous waste facilities

Underground Storage Tanks

SBCCFD-regulated USTs

- ❖ Exempt from APSA
- ❖ US EPA SPCC exempt *only* if 'completely buried'



Oil-Filled Electrical Equipment

- ❏ APSA exempt (conditionally)
 - ❖ Still US EPA SPCC regulated
- ❏ Includes:
 - ❖ Transformers, circuit breakers, or capacitors
- ❏ APSA exempt if the oil-filled electrical equipment meets either of the following conditions:
 - ❖ Contains $< 10,000$ gallons of dielectric fluid
 - ❖ Contains $\geq 10,000$ gallons of dielectric fluid, and
 - PCB concentration is < 50 PPM PCB
 - Appropriate containment or diversionary structures or equipment are employed, and
 - The electrical equipment is visually inspected in accordance with the owner/operator's usual routine maintenance procedures

Oil-Filled Electrical Equipment



Same contents

Applicability (APSA)

1. Federally regulated SPCC facilities... unless:
 - ❖ APSA exempt or excluded
 - ❖ $\leq 1,320$ gallons of petroleum storage capacity
2. 'Non-transportation' facilities storing, transferring, refining, distributing, processing, consuming or using petroleum... **and** combined storage capacity of $\geq 1,320$ gallons above ground
 - **Even temporarily**
 - ❖ In tanks ≥ 55 gal
 - "Tanks" includes tanks, totes, containers, oil-filled operational and manufacturing equipment, and non-transportation tank trucks

APSA Oil: Petroleum

 Crude oil, or any fraction thereof, which is liquid at 60°F & normal atmospheric pressure

- ❖ Aviation gasoline and additives
- ❖ Jet fuel and additives
- ❖ Motor gasoline and additives (NOT pure biofuels)
- ❖ Diesel fuel and additives,
- ❖ Gas turbine fuel oils;
- ❖ Lubricating oils (including waste oils);
- ❖ Mineral oils
- ❖ Heating and illuminating oils (fuel oils, kerosene);
- ❖ Petroleum solvents
- ❖ Petroleum and mineral spirits
- ❖ High-flash aromatic naphthas
- ❖ VM&P and high flash naphthas
- ❖ Petroleum extender oils
- ❖ Greases
- ❖ Petroleum containing soluble cutting & metalworking fluids
- ❖ **LPG & natural gas is NOT included**

Applicability (*Federal*)...

1. 'Non-transportation' facilities producing, storing, transferring, refining, distributing, processing, consuming or using oil or oil products... and
2. Combined storage capacity of > 1,320 gallons above ground... and
 - ❖ In systems/equipment/tanks/containers \geq 55 gal
 - ❖ Completely buried, state compliant USTs exempted (but must be identified on site map)
3. Might reasonably be expected to discharge oil in 'harmful quantities' into navigable waters
 - Storm drain = Nav Water

A Few Quick Important Definitions

- 🗄️ Petroleum vs. oil
- 🗄️ Facility
- 🗄️ Transportation vs. non-transportation
- 🗄️ Capacity
- 🗄️ Permanently closed
- 🗄️ Tanks, containers, & equipment

US EPA Oil Broader than APSA Petroleum

- 🗑️ APSA: Petroleum only
- 🗑️ US EPA (federal) SPCC Oil: Oil of any kind... including petroleum, mineral, synthetic, animal, vegetable, fats

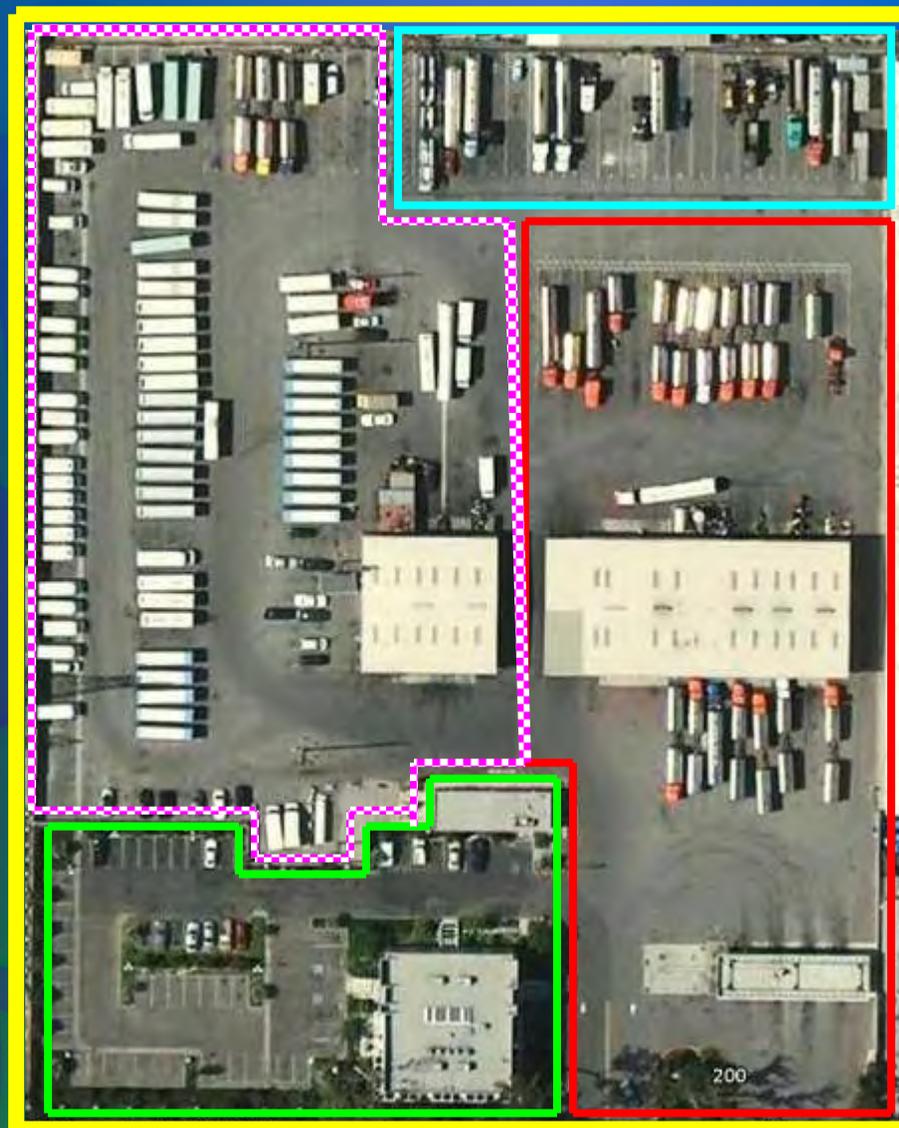


APSA 'Facility'

Facility

❖ APSA definition of Tank Facility:

- more specific than US EPA's
- **Own OR operate \geq 1,320 gal. petroleum storage capacity at a single site**
 - In tanks/containers \geq 55 gal. capacity
- **Different owners or operators could result in multiple regulated 'tank facilities' on one site**



Transportation vs. Non-Transportation?



Facilities are divided into three categories:

- Established through series of Executive Orders (EOs) and Memoranda of Understanding (MOUs) among EPA & DOT

1. Transportation-related facilities

2. Non-transportation-related facilities

3. Complexes (both elements at one facility)

❖ Look at it (mostly) by equipment and activity performed by that equipment... not whole 'facility'

- Impact: A) what counts toward the 1,320 gal. facility capacity threshold, B) what equipment is regulated by APSA, and C) what equipment must be included in the SPCC Plan

Transportation Related

(DOT regulated... not APSA or US EPA)

Transportation Related (DOT)

- ❖ Highway vehicles and railroad cars that *are being used for the transport* of petroleum
- ❖ Interstate and intrastate onshore and offshore pipeline systems (regulated by DOT)
- ❖ Operations and equipment *actively engaged in transportation related activities*



Transportation vs. Non-Transportation

❖ Non-Transportation

- APSA/SPCC regulated
- Loading racks, transfer hoses, loading arms, and other equipment used to transfer petroleum in bulk to or from highway vehicles or railroad cars

❖ Transportation

- Not APSA/SPCC regulated
- The vehicles or cars themselves (unless parked & not loading/unloading)



Bulk Loading Racks



Transportation and Non-Transportation



Bulk Loading Areas



❖ Non-transportation

- Loading areas, transfer hoses, associated tanks and equipment used to transfer petroleum in bulk **to or from** highway vehicles or railroad cars

❖ Transportation

- The vehicles or cars themselves (**unless** parked & not loading or unloading)

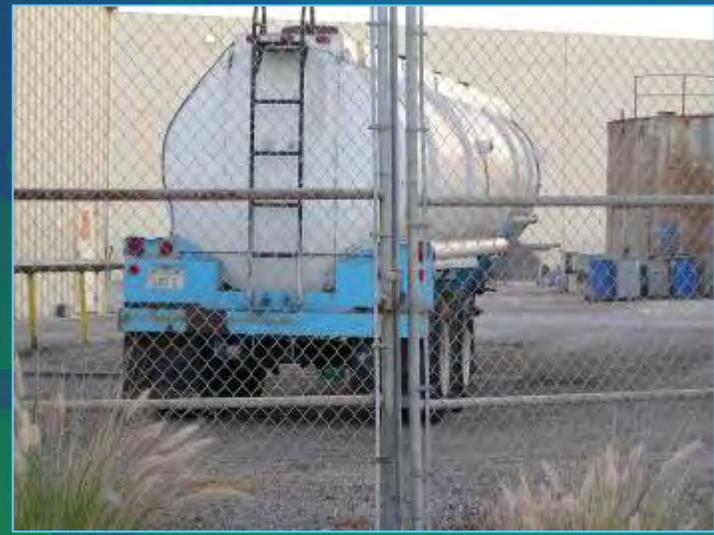
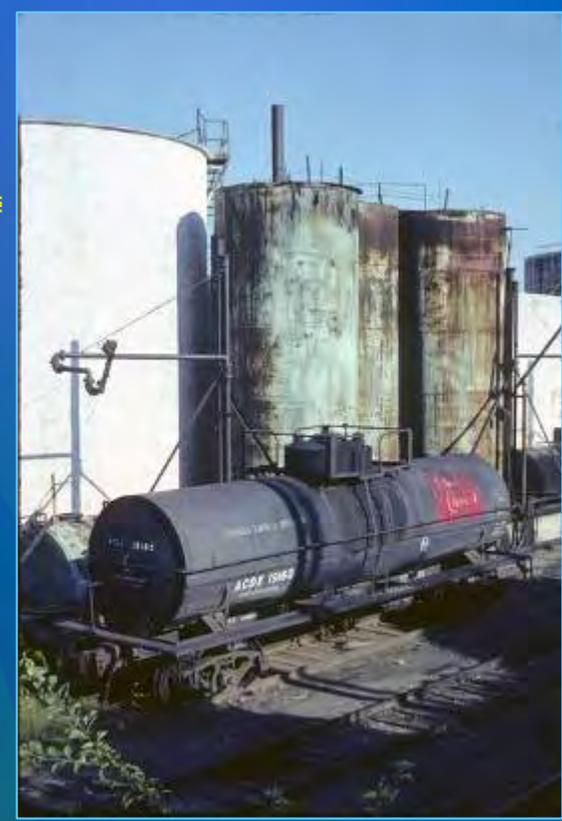
❖ Loading areas and loading racks **ARE** regulated under APSA

- But loading 'racks' and loading 'areas' have different secondary containment criteria (*more on this later*)

Non-Transportation Related (APSA and US EPA regulated)

Non-Transportation Related

- ❖ Vehicles, railroad cars, and pipelines used to transport or handle petroleum primarily within the facility



- ❖ Non-transportation: e.g. petroleum tanker trucks or tank cars staged or parked overnight at the site or when used primarily for on-site storage or transfer activities

1,320 Gal. Aggregate Facility Capacity

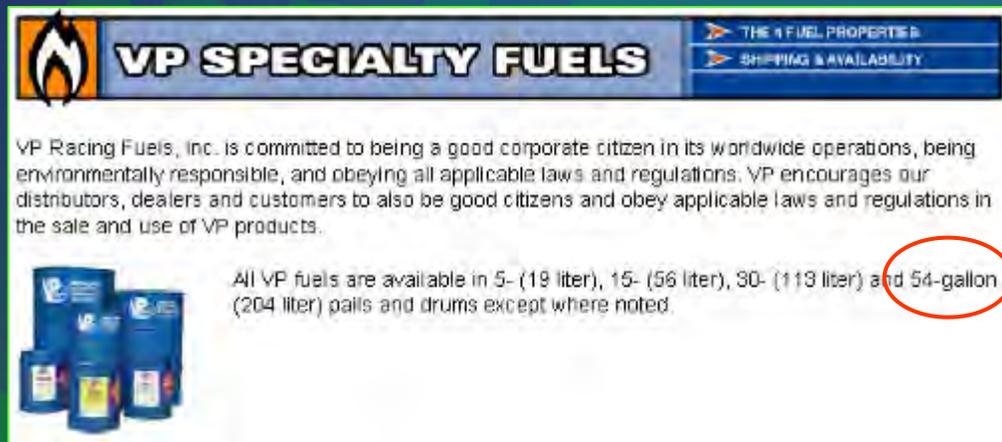
55 Gal. per Container Storage Capacity

Petroleum Storage Capacity

- Remember $\geq 1,320$ gallons aggregate facility capacity counting 55 gal & larger containers?
- ❖ Count the shell capacity of a tank or container
 - Does not matter the actual volume being stored
- ❖ Shell capacity is rated design capacity rather than the working/operational capacity
 - e.g. '54 gal.' drum will hold up to 60 gal.

 < 55 gal.?

- ❖ Not included in SPCC Plan



VP SPECIALTY FUELS

VP Racing Fuels, Inc. is committed to being a good corporate citizen in its worldwide operations, being environmentally responsible, and obeying all applicable laws and regulations. VP encourages our distributors, dealers and customers to also be good citizens and obey applicable laws and regulations in the sale and use of VP products.

All VP fuels are available in 5- (19 liter), 15- (56 liter), 30- (113 liter) and 54-gallon (204 liter) pails and drums except where noted.

Permanently Closed vs. Empty

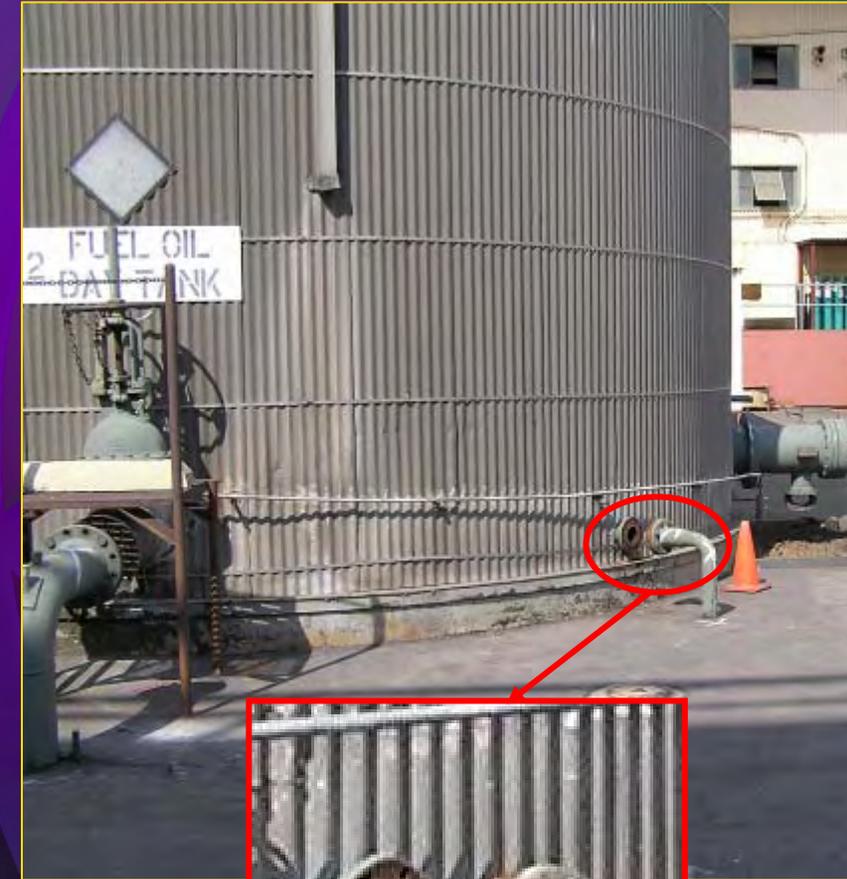
? Do you count it (and include it in the SPCC Plan) if it is empty?
Yes.. Unless 'permanently closed'

Permanently Closed

- ❖ Remove all liquid and sludge from each container and connecting line
- ❖ Disconnect and blank off all connecting lines and piping
- ❖ Close and lock all valves (except ventilation valves)
- ❖ Post a conspicuous sign on each container stating it is permanently closed with the date of closing

 Tanks can remain on site, but they are not included in the total storage capacity or the SPCC Plan

Permanently Closed Containers?



Tanks & Containers & Equipment, Oh My!

- ❏ Important to understand types of 'tanks':
 - ❖ Specific SPCC requirements for secondary containment or discharge prevention, and integrity testing vary by 'tank' type
 - ❖ US EPA's SPCC rules uses the term 'container' very broadly – can mean tanks or containers (drums)
 - Separate terms for oil-filled equipment
 - ❖ APSA uses the term 'tank' very broadly – can mean tanks, containers and oil-filled equipment



Tanks & Containers & Equipment Regulated by APSA & US EPA SPCC Rule

Bulk tanks & containers – fixed (non-portable)

- ❖ Field constructed
- ❖ Shop fabricated

Bulk tanks and containers – portable/mobile

Oil filled equipment

- ❖ Oil filled operational equipment
- ❖ Oil filled manufacturing equipment
- ❖ Oil filled electrical equipment
 - Oil filled electrical equipment conditionally APSA excluded

Mobile refuelers and other non-transportation related tank trucks

Oil handling areas

- ❖ Loading areas, handing areas, piping, etc.

Bulk Tanks & Containers (fixed)



Bulk Tanks & Containers (fixed)



Bulk Tanks & Containers (fixed)



Bulk Tanks & Containers (fixed)



Bulk Tanks & Containers (fixed)



Bulk Tanks & Containers (mobile/portable)



Bulk Tanks & Containers (mobile/portable)



Bulk Tanks & Containers (mobile/portable)



Oil-Filled Operational & Manufacturing Equipment... are APSA 'tanks'

Examples of oil filled operational equipment

- ❖ Hydraulic systems, lubricating systems, gear boxes, machining coolant systems, heat transfer systems, flow-through process vessels

Examples of oil filled manufacturing equipment

- ❖ Reaction vessels, fermentors, high pressure vessels, mixing tanks, dryers, heat exchangers, and distillation columns

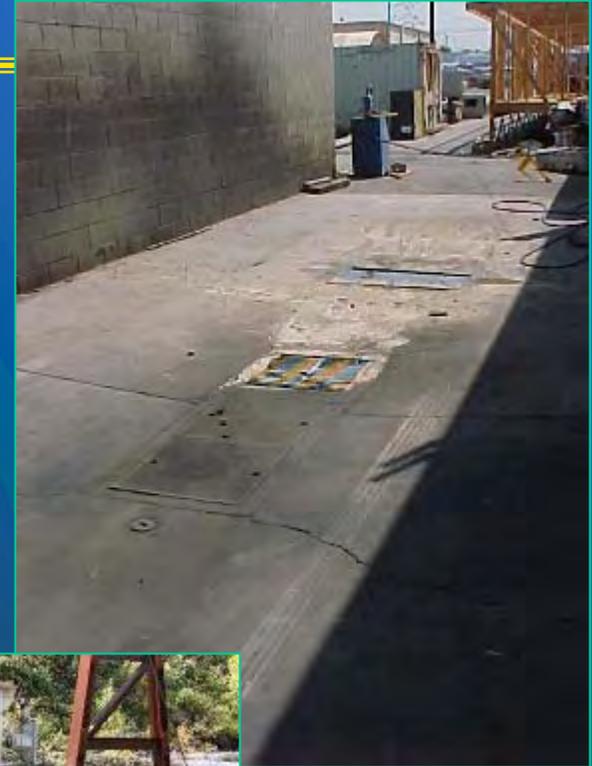
Oil-Filled Operational & Manufacturing Equipment



Oil-Filled Operational & Manufacturing Equipment



Wastewater Systems: Fed. SPCC excluded but IN APSA!



Mobile Refuelers & Other Non-Transportation Related Tank Trucks

