



# Spill Containment and Commerce



# Executive Summary

-What is Spill Containment, Secondary Containment and a Spill Prevention Plan

-Marine Containment vs. Above-Ground Containment

-Dangers of Spills, Costs, and Enforcement Agencies

-Various types of Spill Containment Products and Spill Prevention Products

-The future of Spill Containment



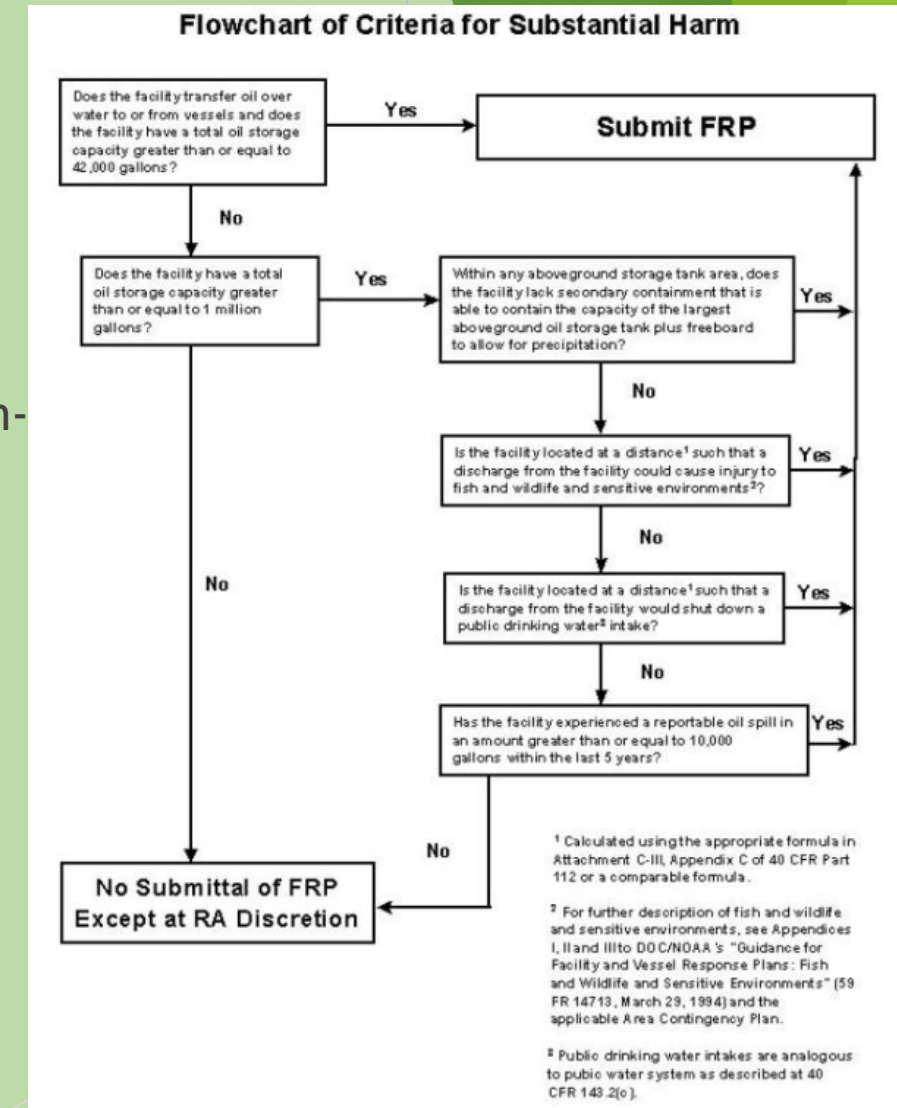
## Origin and Purpose

- ▶ EPA Founded 1970: Enforce environmental and human health regulations
- ▶ Clean Water Act of 1973: Governs water pollution
- ▶ Clean Water Act sets forth the Oil Pollution Regulations
  - ▶ Subparts A, B, and C of the Oil Pollution Prevention Regulations are established
- ▶ 1990 Oil Pollution Act: Requires Facility Response Plans for some oil facilities.
  - ▶ Adds Subpart D to Oil Pollution Prevention Regulations



# Oil Spill Prevention Regulation

- ▶ Subpart A: Sets forth requirements for all types of oil-related facilities
- ▶ Subpart B: Sets forth further requirements for petroleum and non-petroleum oils besides Animal and Vegetable related Greases and Oils
- ▶ Subpart C: Sets forth further requirements for Animal and Vegetable related Greases and Oils
- ▶ Subpart D: Requires a Facility Response Plan for designated oil storage facilities
  - ▶ Plan for a worst-case scenario discharge. Must be approved by certified Engineer.



# Background Information

- ▶ Spill Containment: Primary, Secondary, vs Spill Response
- ▶ Benefits of Secondary Containment
- ▶ Spill Prevention Plans: SPCC Plans and Facility Response Plans



## Containment in the US

- ▶ Congress passes laws to address human health and environmental issues.

### Enforcement Agencies:

- ▶ Marine Containment: US Coast Guard regulates and enforces
- ▶ Land and Non-Coastal Waters: EPA regulates and enforces





# EPA Enforcement Policy

- ▶ Fines for SPCC Violations
  - ▶ Enforced by States. Typically local Environmental Agencies or Fire Agencies

## If a Spill Should Occur:

- ▶ Clean-up or pay for clean up efforts
- ▶ Possible Fine - Based on severity and impact
- ▶ Civil Court - If not willing to comply
- ▶ Judicial Court - Only for serious violations. (Willfully or knowingly committed)



# Florefe, Pennsylvania Oil Spill of 1988

- ▶ A re-located 3.8-million-gallon storage tank collapsed
- ▶ 750,000 gallons of fuel flowed into the Monongahela River
- ▶ Impacting thousands of local birds and fish
- ▶ Monongahela River and Ohio River water supply stopped to parts of Pennsylvania, Ohio, and West Virginia





## Floreffa, PA 1988 Oil Spill Result

- ▶ Ashland Oil paid estimated \$37.1 million in damages, expenses, and civil penalties
- ▶ SPCC Task Force is formed and recommends changes
- ▶ Leads to the Oil Pollution Act of 1990 (Subpart D of Oil Pollution Prevention Regulation)
- ▶ Subpart D: Requires Facility Response Plans on top of SPCC Plans for certain Oil Facilities



## Yakima River Case Study



Unmonitored Above Ground Storage Tank fails.



1,500 gallons of Motor Oil enters drain. Flows through a series of irrigation canals and drainages emptying into the Yakima River.



## Historic Spills Costs

1989 EXXON Valdez: Estimated cost: \$3.5 billion



2010 Deepwater Horizon: Estimated cost \$42-\$54 billion

# Dangers of Above-Ground Spills

- ▶ Erosion
- ▶ Soil Quality
- ▶ Explosion/Fires
- ▶ Public Safety
- ▶ Reaching Waterways
- ▶ Wildlife Implications





# Above-Ground Storage Tank and Fuel Bladder Containment Products





# Vehicle Containment Products





# Containment Corporation

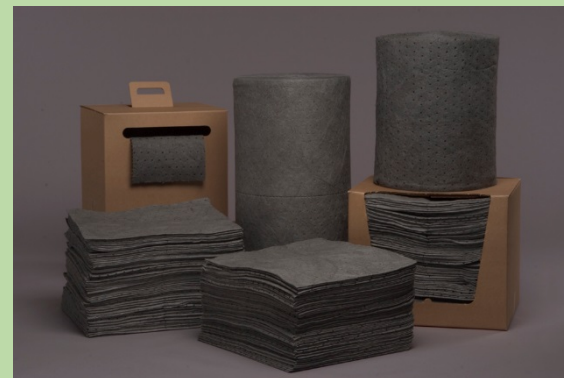
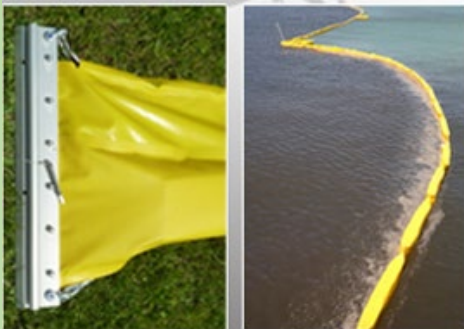
## Drum Containment





# Containment Corporation

## Spill Response Products





# Future of Spill Containment

- ▶ Continued growth in SPCC Enforcement
  - ▶ Growth in State's enforcement of regulations and their agencies
- ▶ Further amendments to the Oil Pollution Prevention

## Regulation

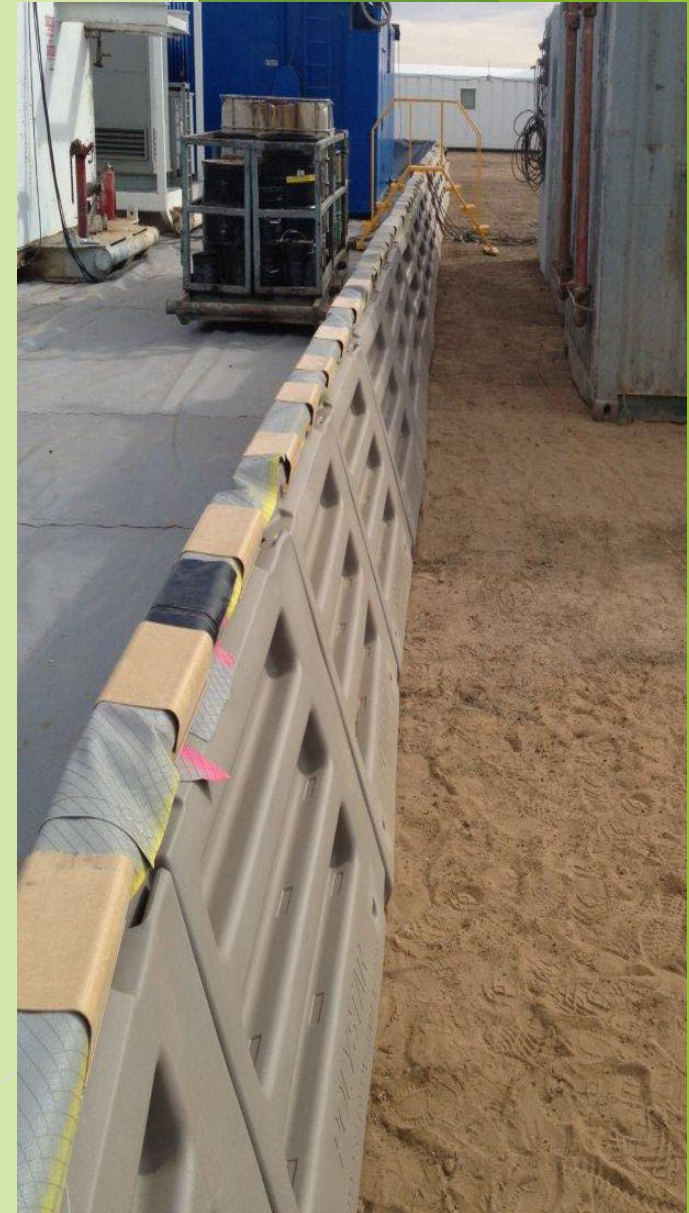
- ▶ Dictated by growing concerns, Industry practices, and future incidents
- ▶ Growth in regulations and governance internationally

If the facility total aboveground oil storage capacity is 10,000 gallons or less		
And...	And the facility has...	Then the facility is a:
Within 3 years prior to the Plan certification date, or since becoming subject to the SPCC rule if in operation for less than three years, the facility has not discharged oil in: <ul style="list-style-type: none"> <li>• A single discharge exceeding 1,000 gallons, or</li> <li>• Two discharges each exceeding 42 gallons within any 12-month period.</li> </ul>	No individual aboveground oil containers greater than 5,000 gallons;	<b>Tier I Qualified Facility:</b> Complete and self-certify Plan template (Appendix G of SPCC rule) instead of a full PE-certified Plan or other self-certified SPCC Plan.
	Any individual aboveground oil container greater than 5,000 gallons;	<b>Tier II Qualified Facility:</b> Prepare a self-certified Plan in accordance with all applicable requirements of §112.7 and subparts B or C of the rule, in lieu of a PE-certified Plan.



# Future of Spill Containment Industry

- ▶ Innovative new spill containment and spill response products
- ▶ Overseas competition in the Spill Containment Products market
- ▶ Tightening of margins as the Spill Containment Product market place grows
- ▶ Growing need for Remediation Services
  - ▶ Emergency Response and Spill Clean-Up Services



## References:

- ▶ <http://www.eoearth.org> - Multiple links
- ▶ <http://www2.epa.gov/> - Multiple links
- ▶ National Response Center, Region IV Regional Response Team, “Oil Spill Prevention, Control, & Countermeasure Regulations” - Pamphlet,  
[http://www.nrt.org/production/NRT/RRTHome.nsf/resources/RRTIV-Pamphlets/\\$File/24\\_RRT4\\_SPCC\\_Pamphlet.pdf](http://www.nrt.org/production/NRT/RRTHome.nsf/resources/RRTIV-Pamphlets/$File/24_RRT4_SPCC_Pamphlet.pdf)
- ▶ NY Times, AP, Nov. 23, 1989, “Ashland Oil to Pay \$4.6 million to Pennsylvania”,  
<http://www.nytimes.com/1989/11/23/us/ashland-oil-to-pay-4.6-million-to-pennsylvania.html>
- ▶ Yakima Herald Public, AP, March, 2, 2015, “Tank failure leads to oil spill on Yakima River”,  
<http://www.tri-cityherald.com/latest-news/article32217765.html>
- ▶ State of Washington, PSA, “Sulphur Creek Oil Spill”,  
<http://www.ecy.wa.gov/programs/spills/incidents/SulphurCreekSpill/>
- ▶ Fortune, Shelley DuBois, “6 big oil spills and what they cost”,  
[http://archive.fortune.com/galleries/2010/fortune/1005/gallery.expensive\\_oil\\_spills.fortune/](http://archive.fortune.com/galleries/2010/fortune/1005/gallery.expensive_oil_spills.fortune/)
- ▶ [www.containmentcorp.com](http://www.containmentcorp.com) - Multiple links and images
- ▶ [www.polystarcontainment.com](http://www.polystarcontainment.com) - Multiple links and images
- ▶ [www.enpac.com](http://www.enpac.com) - Multiple links and images