

# **Oil Spill Response and Cleanup**

**An Introduction**



**Question:**

**When is response to oil spill  
necessary?**

# Discharge of Oil Prohibition

- ▶ Clean Water Act, Section 311(b)(1) &(3)

“...Congress hereby declares...there should be no discharges of oil...”

“The discharge of oil...in such quantities **as may be harmful**...is prohibited...”

# Discharge of Oil, 40 CFR 110

- ▶ *Sheen means an iridescent appearance on the surface of water;*



- ▶ *Sludge means an aggregate of oil or oil and other matter of any kind in any form other than dredged spoil having a combined specific gravity equivalent to or greater than water;*

# Question:

**Who is responsible to ensure  
that response is conducted?**

# The National Contingency Plan (NCP) designates the OSC as the person who:

- ▶ Determines when a response is necessary
- ▶ Whether a substantial threat exists– requiring OSC to **direct** ( not just monitor)
- ▶ Determines if state or local responders are capable of carrying out the removal actions
- ▶ Coordinates with Natural Resource Trustees
- ▶ Is responsible for site safety
- ▶ Determines if response actions are consistent with the NCP
- ▶ Directs Area Committees
- ▶ Conducts Exercises under Area Contingency Plans

# OSC Defined

- ▶ The OSC is defined as:
  - *On-Scene Coordinator (OSC) means the federal official predesignated by EPA or the USCG to coordinate and direct federal responses under subpart D, or the official designated by the lead agency to coordinate and direct removal actions under subpart E of the NCP*

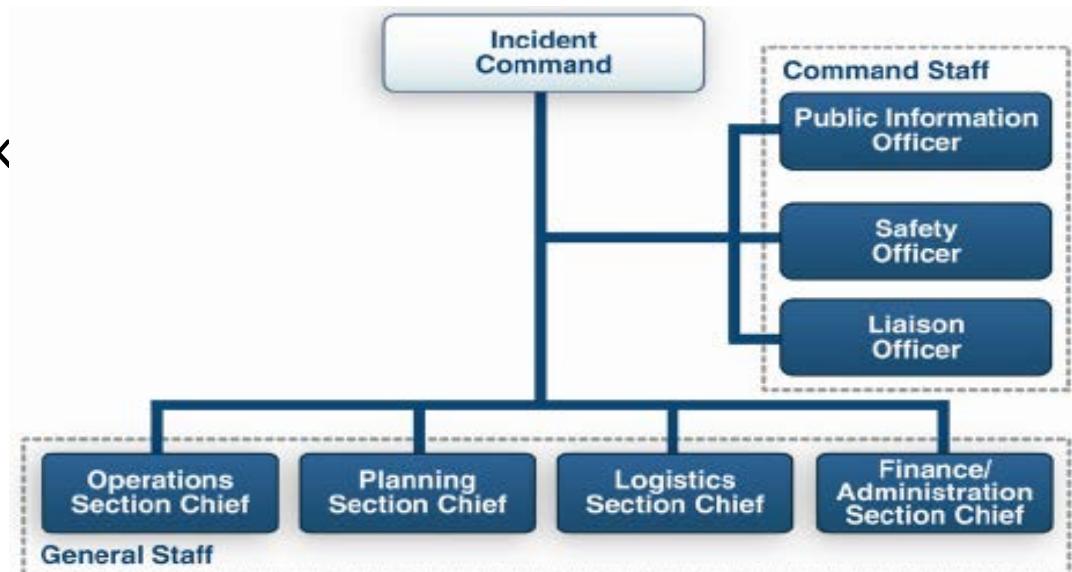
- ▶ Inland zone- EPA is the OSC or FOSC
- ▶ Coastal Zone – USCG is the OSC or FOSC

# OSC Responsibilities for Coordination

- ▶ NCP 300.135 ... OSC's efforts shall be coordinated with other appropriate federal, state, local, and private responses agencies.
- ▶ The basic framework for the response management is a system (e.g. Unified Command) that brings together the federal and state ( & local) govt. and the RP to achieve an effective and efficient response where the *OSC maintains authority*

# Response Management Framework

- ▶ NRF mandates the use of ICS for responses to all hazards including response to oil spills.
- ▶ Establishing an effective response management strategy early and using the ICS planning process is pivotal to a unified and effective response
- ▶ Determine the framework for the response management structure [NCP § 300.305(c)]



# Coordination (cont.)

- ▶ NCP 300.135... OSC should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response to the extent possible.

# When and What does an OSC Direct?

- ▶ “...the discharge poses or may present a substantial threat to public health or welfare of the United States...”
- ▶ “...the OSC shall direct all federal, state, or private actions to mitigate or prevent the threat of such a discharge, as appropriate.”

# How and What does an OSC Direct

- Congressional Intent was clear...
- OSCs were charged to direct all resources, *including state and local.* “...to eliminate the confusion evident in recent spills where the lack of clear delineation of command and management responsibilities impeded prompt and effective response.”

# How and What does an OSC Direct

- ▶ Goal is to achieve an effective and efficient response by all involved parties, where the OSC maintains authority.
  - Reach Consensus
  - Consensus and Cooperation, rather than a more rigid system of command and control
  - Unified Command

# Operational Administration

- ▶ Identification of Potentially Responsible Party
- ▶ Administrative Orders
  - CWA § 311(c)
  - CWA § 311(e)

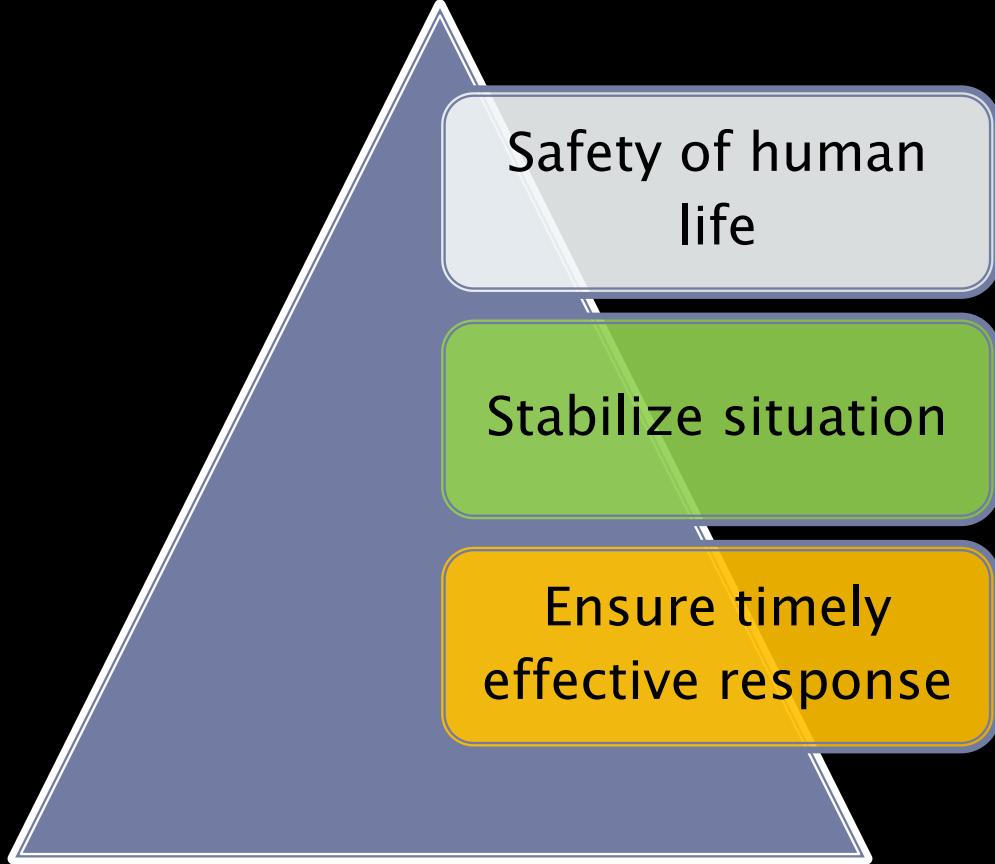


# **Oil Response Priorities**

- ▶ Unique to Oil Spill Response
  - ...National Priorities stated in NCP
- ▶ First – Safety of human life
- ▶ Second – Stabilize
- ▶ Third – Containment, removal and disposal

# National Response Priorities

[NCP § 300.317]



Safety of human life

Stabilize situation

Ensure timely effective response

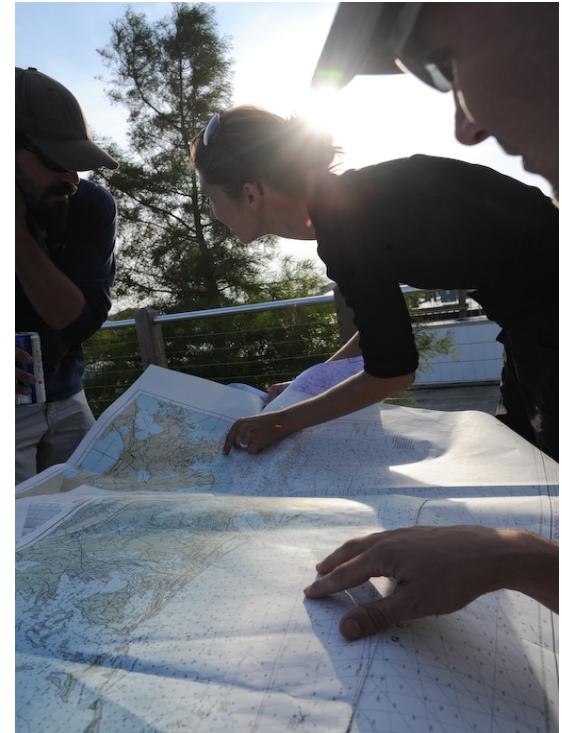
# NCP-Subpart D

## Operational Response Phases for Oil Removal

- ▶ Discovery and Notification
- ▶ Preliminary Assessment and Initiation of Action
- ▶ Containment, countermeasures, cleanup, and disposal
- ▶ Phase IV—Documentation and Cost Recovery

# Assessment

- ▶ Evaluate the size and nature of spill and potential hazards [NCP § 300.305 & § 300.320]
- ▶ Determine the need for personnel, equipment, and other resources to promptly and effectively respond to the spill



# **Oil Removal – Natural Resources**

- ▶ OSC shall ensure the NR trustees are promptly notified. 300.305(e)
- ▶ OSC and trustees shall coordinate assessments, evaluations, investigations, and planning w/ respect to the appropriate removal actions. 300.305(e)

# Natural Resource Trustees

(continued)

## ▶ Who are the Natural Resource Trustees?

- Federal – Secretaries of Agriculture, Commerce, Defense, Energy, Interior (§ 300.600)



# Natural Resource Trustees

(continued)

- ▶ Who are the Natural Resource Trustees?
  - State – designated by the Governor (§ 300.605)



**NEW MEXICO OFFICE OF  
NATURAL RESOURCES TRUSTEE**

# Natural Resource Trustees

(continued)

## ▶ Who are the Natural Resource Trustees?

- Tribal – designated by Tribal Chairmen or the Secretary of the Interior may serve as trustee at request of the tribe (§ 300.610)



# Natural Resource Trustees

## (continued)

### ► What are Natural Resources?

- Natural resources include land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources (NCP § 300.5)
- Natural resources of concern are held in trust for the public



# Trustee Activities in Emergency Response

- ▶ Identify/prioritize resources at risk
- ▶ Evaluate protective measures and cleanup strategies
- ▶ Participate in post-clean-up inspection
- ▶ Wildlife rehabilitation

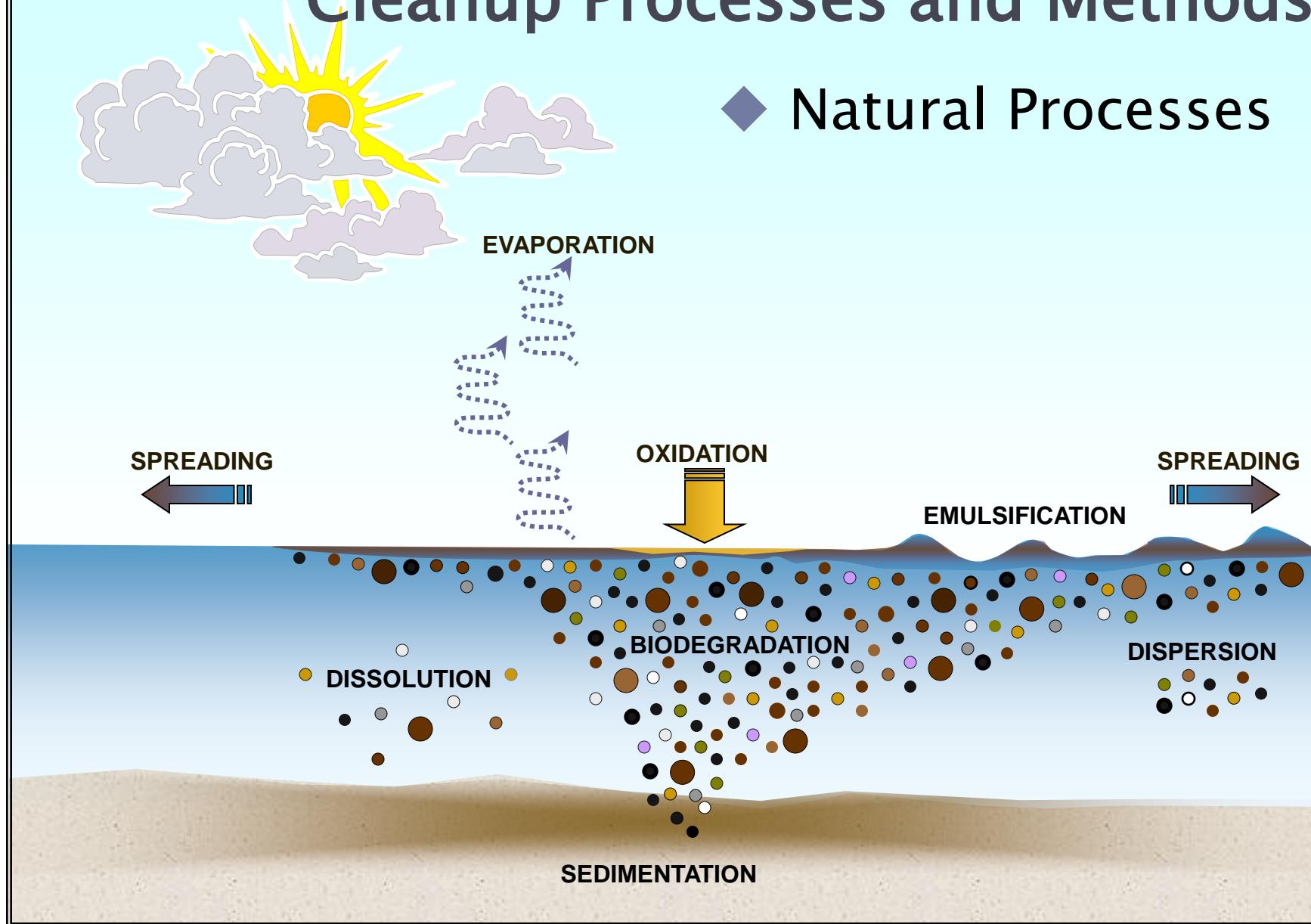


# **Oil Removals (con't.)**

- ▶ OSC shall immediately take defensive actions to prevent, minimize or mitigate threats to public health and welfare. 300.310
  
- ▶ Actions shall be taken to recover oil or mitigate its effects. Chemical and physical prevention actions shall be taken. 300.310

# Cleanup Processes and Methods

## ◆ Natural Processes



# Cleanup Processes and Methods (continued)

## ▶ Physical Methods

- Wiping with absorbent materials
- Flushing or pressure washing
- Raking or bulldozing



# Mechanical Containment and Recovery of Oil Following a Spill

- ▶ Containment: Used to restrict the spread of oil and allow for its recovery, removal, or dispersal
  - Booms
  - Dams
  - Fences
  
- ▶ Recovery: Once an oil spill has been contained, efforts to remove the oil from water can begin
  - Booms
  - Skimmers
  - Sorbents



# **Containment**

- ▶ **Booms**
  - Commercial
  - Improvised
- ▶ **Dams**
  - Under flow
  - Over flow
- ▶ **Fences**



# Commercial Booms

- ▶ Internal Flotation
- ▶ Spring Loaded
- ▶ Self Inflatable
- ▶ Fire Boom
- ▶ Shoreline Boom
- ▶ Adsorbent



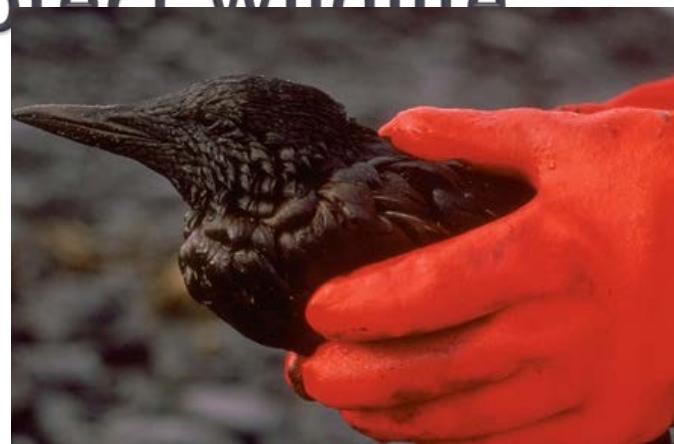
# Alternative Countermeasures

- ▶ Chemical Dispersants
- ▶ Biological Agents
- ▶ In-situ Burning
- ▶ Natural Attenuation



# Response Options to Protect Wildlife

- ▶ Keep the oil away from the resource
- ▶ Keep the resource away from the oil
- ▶ Capture and treat oiled wildlife



# Oil Removal (con't.)

- ▶ OSC must determine whether RP can achieve effective cleanup and if it is being properly carried out. (300.320)
- ▶ OSC may determine whether a state or local entity has capability to carry removal
- ▶ Substantial threats to public health and welfare – 300.322 – OSC shall direct all federal, state and private actions to address substantial threat

# Who determines when response actions are complete?

# Oil Removal – Completion

- ▶ OSC, in consultation w/governor of affected state, shall determine when removal actions are complete, 40 CFR §300.320(b)

# Response Assistance

## (continued)

- ▶ State and local participation [NCP § 300.180]
- ▶ Nongovernmental participation [NCP § 300.185]



# Worker Health & Safety

- ▶ Safety of human life is paramount during all response efforts at the scene of a discharge as well as the safety of all response personnel
- ▶ FOSC primarily responsible for addressing worker health and safety at a response scene [NCP § 300.150 and 29 CFR 1910.120]
- ▶ FOSC shall restrict volunteers from on-scene operations if dangerous conditions exist [NCP § 300.185(c)]

# Documentation & Reporting

- ▶ Must document and report all activities that take place during and after a spill [§ 300.315]
- ▶ POLREPS/SITREPS [§ 300.135(m)]



# The OSC, The ACP, and The Area Committee

- ▶ OSC's are responsible for directing Area Committees in the development of Area Contingency Plans to:
  - Enhance the contingency planning of federal, state, and local agencies
  - Assure preplanning of joint response efforts
  - Expedite decisions for the use of dispersants and other substances or mitigating devices

# EPA Guidance Doc Link

[www.rrt5.org](http://www.rrt5.org)

[www.nrt.org](http://www.nrt.org)

**www.epa.gov**

# Mark West Pipeline

