RRT2
Chemical Countermeasures and In-Situ Burning Memorandums of Understanding

NY/NJ RRT Meeting

~~November 16-17, 2010~~

~~Morristown, NJ~~

Current Dispersants MOU

- Signed in March/April 1994
- Signatories:
  - CAPT Eric J. Williams III, USCG-D1
  - CAPT Thomas H. Gilmour, COTP-NY
  - CAPT T.W. Allen, COTP-LIS
  - Mr. Richard Salkie, EPA Region 2
  - Mr. William Patterson, US DOI
  - Ms. Diane Wehner, US DOC/NOAA
  - Mr. Lance Miller, NJ DEPE
  - Mr. Thomas Quinn, NYS DEC

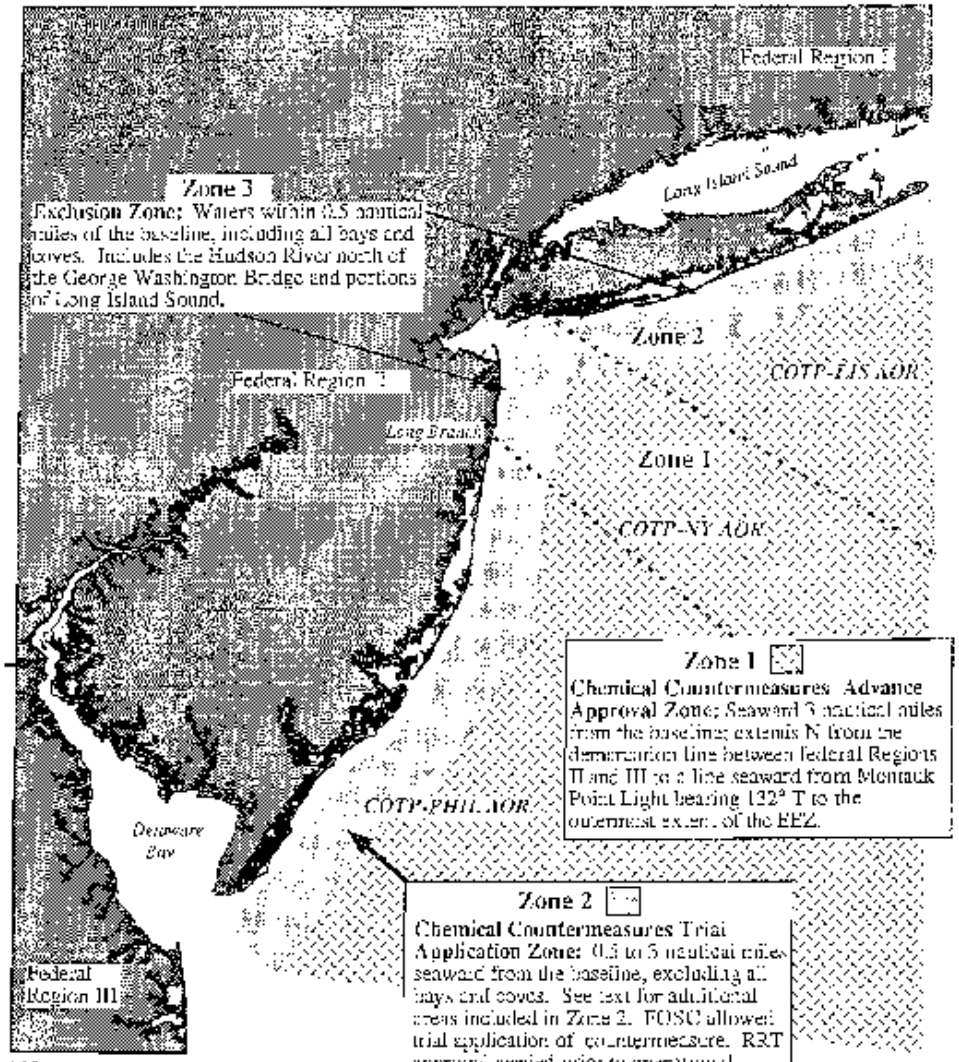
Scope of Dispersants MOU

- Signatory agencies “agree that the primary method of cleaning up oil shall be the physical removal of oil from the environment”
- “Agencies recognize that in certain circumstances timely effective physical containment, collection, and removal of the oil may not be possible, and the utilization of chemical countermeasures, alone or in conjunction with other removal methods, may be considered as a means to minimize substantial threat to public health or welfare, or minimize serious environmental damages.”

The Chemical Countermeasures MOU Establishes Three Zones:

- Zone 1 – Advance Approval Zone
- Zone 2 – Trial Application Zone
- Zone 3 – Exclusion Zone

Region II Chemical Countermeasures Application Zones



NOTE: Map zones not drawn to scale

12 December, 1995 Update

Figure 1

Zone 1 – Advance Approval

- Waters that lie 3 nautical miles and seaward of the Territorial Sea Baseline, along the coast of NJ and along the south shore of Long Island
- The MOU provides the FOSC with advance approval to use chemical countermeasures listed on the NCP Product Schedule, following the established protocols

Zone 2 – Trial Application Zone

- Waters between 0.5 nm and 3 nm, exclusive of all bays and coves.
- Also includes:
  - Hudson River south of the Tappan Zee Bridge
  - Upper New York Bay
  - The Narrows
  - Lower New York Bay
  - Arthur Kill

Zone 2 – Trial Application Zone

- Also includes:
  - Raritan Bay, excluding Spermaceti Cove and not with 0.5 nm of Sandy Hook
  - Newark Bay, up to mouths of Passaic and Hackensack Rivers
  - East River, south of Throgs Neck Bridge
  - Long Island Sound, within COTP-NY AOR only, excluding Little Bay, Little Neck Bay, Manhasset Bay, Hempstead Harbor, Eastchester Bay, Pelham Bay, and not within 0.5 nm of the northern shore of Long Island

Advance Approval for Zone 2

- The FOSC has advance approval to use CC's on the NCP Product Schedule on a ***trial basis*** in Zone 2, following protocols listed, unless otherwise prohibited in ACP's
- No trial application if Threatened or Endangered species are known to be present

Advance Approval for Zone 2

- Trial application will be performed on a portion of the spill covered by less than 1000 gallons:
  - to determine the product's efficacy on the specific oil;
  - under the current environmental and meteorological conditions.
- Quantity utilized should not exceed 110 gallons.

Advance Approval for Zone 2

- The trial application may begin PRIOR to the request for operational use on a greater portion of the spill.
- Will be supervised by a trained observer (Strike Team, NOAA SSC, etc)
- Reported as a qualitative observation (pass/fail), to the RRT as soon as available

Advance Approval for Zone 2

- Trial results do NOT mean that the CC may automatically be extensively applied.
- Trial is for the purpose of determining if:
  - Time/effort should be expended to seek further clarification of incident-specific issues, and
  - Request concurrence for operational use.
- If the trial application fails to produce significant results, the request for future use will not be made.

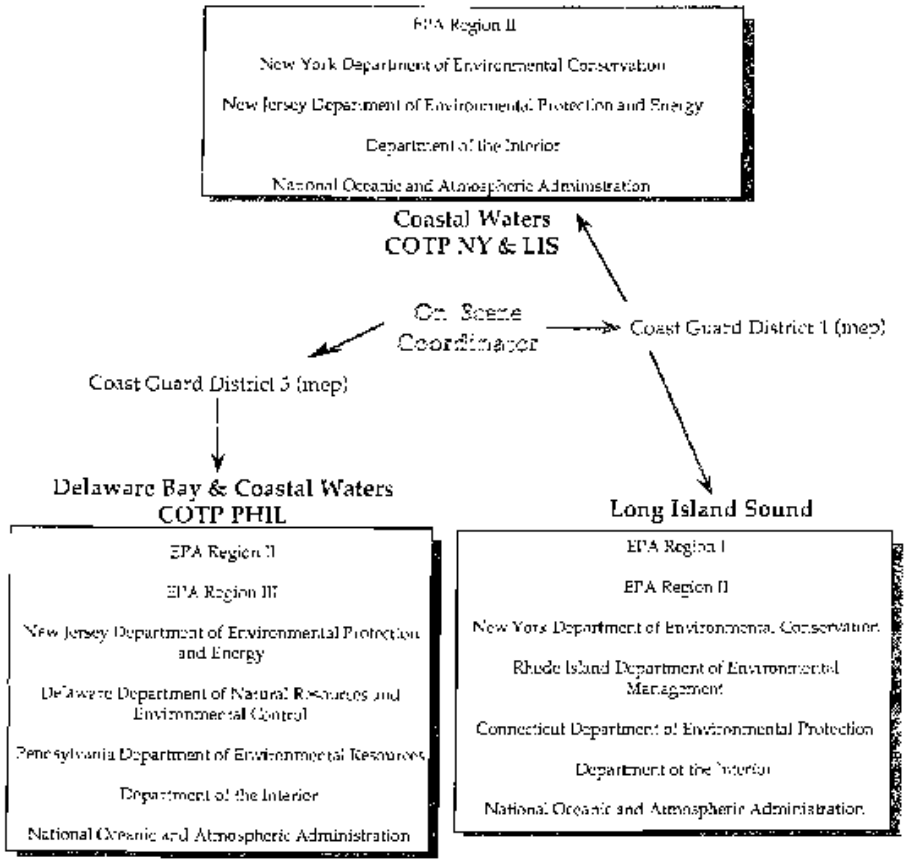
Zone 3 – Exclusion Zone

- Waters within 0/5 nm of the Territorial Sea Baseline along the NJ coast and south shore of Long Island, including all bays and coves.
- Also includes:
  - Hudson River, north of the Tappan Zee Bridge
  - Long Island Sound, with the exception of the COTP-NY portion described in Zone 2

Zone 3 – Exclusion Zone

- No advance approval is given in Zone 3
- Use of chemical countermeasures is not recommended in this zone
- Any request for use of CC must be accepted by the concurrence network, and follow the guides in the RCP and ACPs.

Regional Response Team II
Concurrence Network for Chemical Countermeasure Use



PROTOCOLS: The OSC has the authority and may order the use of chemical countermeasures on oil discharges, subject to the following conditions:

- The decision to use CC's rests solely with the pre-designated USCG FOSC.

- The FOSC may authorize use of CC's to prevent or substantially reduce the hazard to human life without obtaining concurrence, and without following protocols in the MOU or guides in the RCP and ACPs.

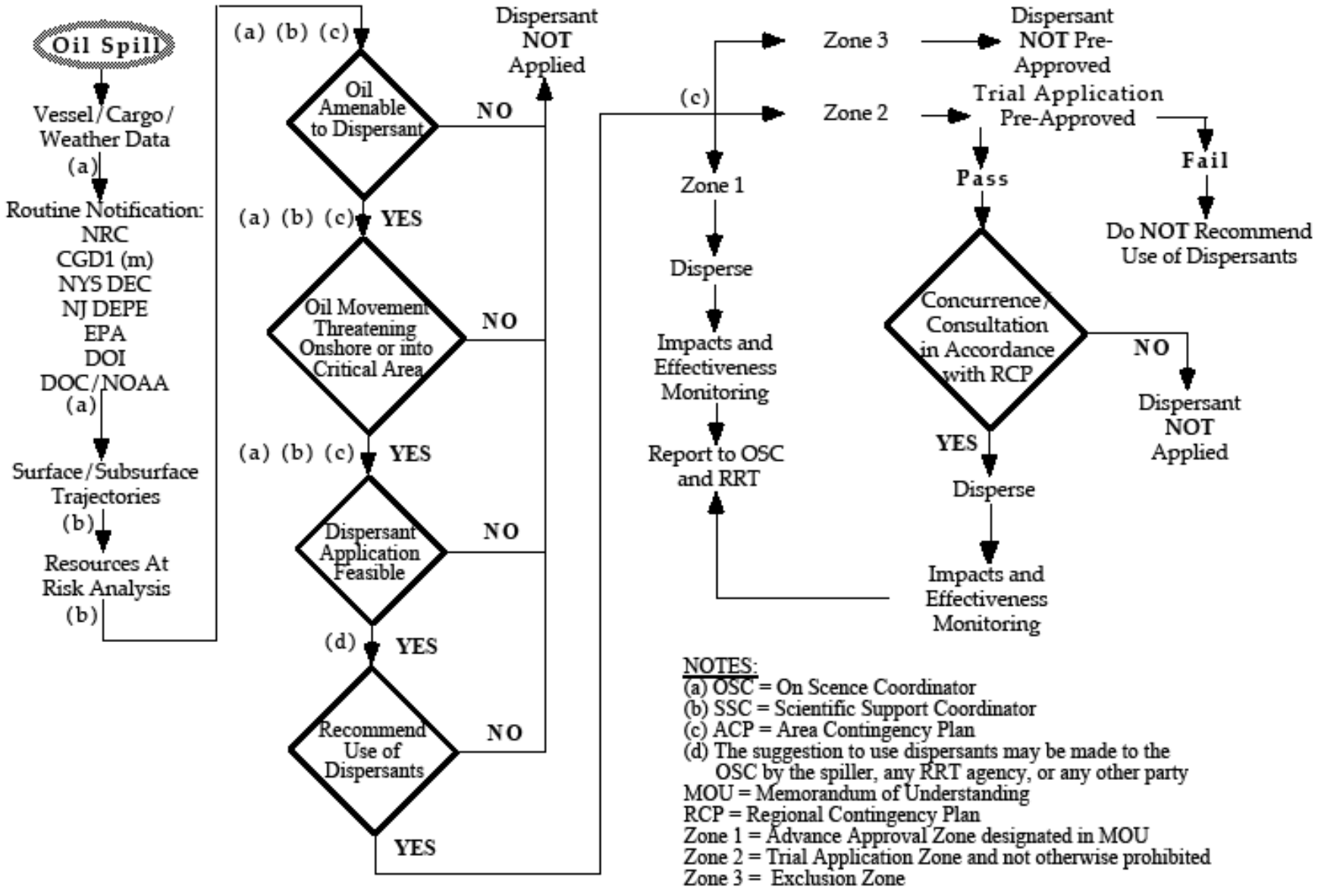
Additional Protocols:

- In Zone 1, NCP product schedule CC's may be used by the FOSC without further concurrence or consultation
- For trial applications in Zone 2, no further concurrence or consultation by the FOSC is needed, provided procedures outlined in the "RRT OSC Dispersant Decision Process" have been followed.

Additional Protocols:

- For operational use in Zone 2, the FOSC must follow the "RRT OSC Dispersant Decision Process," which includes:
  - Concurrence of USCG, EPA & affected state(s)
  - Consultation of DOI and DOC
- Information obtained during the decision process needs to be provided to these agencies.

RRT II OSC DISPERSANT DECISION PROCESS



NOTES:
(a) OSC = On Scence Coordinator
(b) SSC = Scientific Support Coordinator
(c) ACP = Area Contingency Plan
(d) The suggestion to use dispersants may be made to the OSC by the spiller, any RRT agency, or any other party
MOU = Memorandum of Understanding
RCP = Regional Contingency Plan
Zone 1 = Advance Approval Zone designated in MOU
Zone 2 = Trial Application Zone and not otherwise prohibited
Zone 3 = Exclusion Zone

Additional Protocols:

- Only chemical countermeasures listed on the NCP Product Schedule shall be considered for use.
- If a decision has been made to use CC's, the FOSC will immediately notify EPA, DOI, DOC/NOAA and the States of that decision.

Protocols – Initial Notification

- Initial notification will include, but is not limited to, the following information, to the extent available:
  - Type and amount of oil discharged
  - Area affected
  - Projected area of impact if oil is not dispersed
  - Reasons why chemical agent has been selected
  - Type of chemical agent to be used
  - Application rate and method
  - On-scene weather

Monitoring will be initiated in accordance with protocols developed for each zone

v. 8/2006

SPECIAL
MONITORING of
APPLIED
RESPONSE
TECHNOLOGIES

Developed by:

U.S. Coast Guard
National Oceanic and Atmospheric Administration
U.S. Environmental Protection Agency
Centers for Disease Control and Prevention
Minerals Management Service

Smoke rising from the *New Carissa*, February 1999. Photo by USCG

Post-Incident Debriefing

- Will take place within 45 days:
  - to gather information concerning the effectiveness of chemical agents, and
  - To determine if changes to the agreement are necessary.
- Chaired by the USCG FOSC, who will arrange the time, place and date
- Results of the debrief will be included in the FOSC Report

Amendments and Cancellation

- MOU may be amended in whole or in part as is mutually agreeable to all parties.
- Area Committees may submit, for consideration and approval by the RRT concurrence agencies, further defined areas for use/non-use.
- May be cancelled in whole or in part by any party thereto; effective 30 days following delivery of written notification to each of the signatories.

Any Questions So Far?

MOU for Use of In-Situ Burning

- Signed between September - December 1996
- Signatories:
  - CAPT Eric J. Williams III, USCG-D1
  - CAPT Anthony Regalbuto, USCG-D5
  - CAPT Richard Vlaun, COTP-NY
  - CAPT Peter K. Mitchell, COTP-LIS
  - CAPT John Veentjer, USCG-Philadelphia
  - Mr. Bruce Sprague, EPA Region 2
  - Mr. Andrew Raddant, US DOI
  - CDR Gerry Wheaton, US DOC/NOAA
  - Mr. Richard Gimello, NJ DEP
  - Mr. Thomas Quinn, NYS DEC

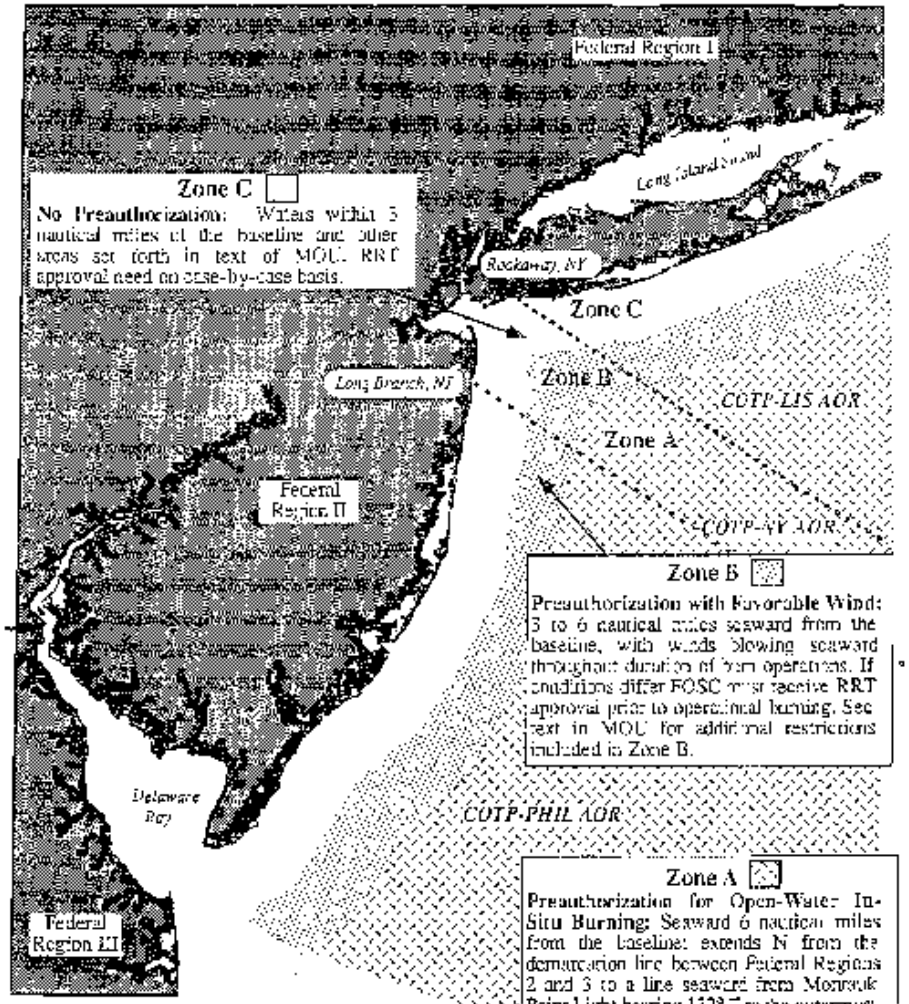
Scope:

- Signatory agencies “agree that the primary method of controlling discharged oil shall be the physical removal of the oil from the environment”
- “These agencies recognize that in certain circumstances timely effective physical containment, collection, and removal of the oil may not be possible, and the utilization of in-situ burning, alone or in conjunction with mechanical removal methods and/or chemical countermeasures, may be considered as a means to minimize substantial threat to public health or welfare, or minimize serious environmental damages.”

MOU Establishes 4 Zones:

- “A” Zones: Pre-authorization for Open-Water Burning
- “B Zones: Pre-authorization with Favorable Wind Conditions
- “C” Zones: Waters Requiring Case-by-Case Approval
- “E” Zones: Exclusion Zones

Region II In-Situ Burning Authorization Zones



NOTE: Map zones not drawn to scale

Figure 1

Map to aid in understanding concerning Preauthorization of In-Situ Burning in Federal Region II.

“A” Zones

- Waters 6 nautical miles and seaward
- Decision to use ISB rests solely with the OSC.
- No further concurrence or consultation is required
- However, if threatened or endangered species are present in the burn area, the trustee agency must be consulted prior to initiating burning operations.
- USCG will immediately notify EPA, DOC/NOAA, DOI and the States of the decision to conduct burning, via the respective RRT reps.

“B” Zones

- Waters between 3 nm and 6 nm.
- The decision to use ISB rests solely with the OSC if and only if:
  - Prevailing wind direction is decidedly seaward,
  - And is expected to remain in the seaward direction for the duration of the planned burn.
- If prevailing wind direction is NOT decidedly seaward, standard consultation and concurrence precedures are required.
- USCG will immediately notify EPA, DOC/NOAA, DOI and the States of the decision to conduct burning, via the respective RRT reps.

“C” Zones: Case-by-Case Approval

- Waters not classified as A, B or E zones, that:
  - Lie within state territorial boundaries
  - Are designated as marine reserves, National Marine Sanctuaries, National or State Wildlife Refuges, units of the National Park Service, or proposed or designated Critical Habitats, or
  - Are considered coastal wetlands, including submerged algal beds and submerged seagrass beds

“C” Zones:

- If the OSC feels that ISB would be beneficial in this zone, a request for authorization must be submitted to EPA, USCG, DOC/NOAA, DOI and the State(s)
- Must include checklist information (Appendix II)
- Response required within 4 hours of receipt of the checklist information
- USCG will immediately notify EPA, DOC/NOAA, DOI and the States of the decision to conduct burning, via the respective RRT reps.

“E” Zones: Exclusion Zones

- Areas not otherwise classified as A, B or C
- Designated by the RRT or the Area Committees as an Exclusion Zone.
- No ISB operations will be conducted in an “E” zone unless:
  - ISB is necessary to prevent a clear, immediate and extreme risk to human health or safety, or
  - An emergency modification of this agreement is made on an incident-specific basis.

PROTOCOLS: The OSC has the authority and may order the use of in-situ burning on oil discharges, subject to the following conditions:

- The decision to use ISB rests solely with the pre-designated USCG OSC. May not be delegated.
- The FOSC may authorize use of ISB to prevent or substantially reduce the hazard to human life without obtaining concurrence, and without following protocols in the MOU or guides in the RCP and ACPs.
  - If used in this manner, notification shall be made as soon as practicable
  - Once risk to human life has subsided, exception no longer applies

Initial Notification Requirements:

- If a decision has been made to use ISB, the OSC will immediately notify EPA, DOI, DOC/NOAA and the State(s) of that decision.
- Initial notification will include, but is not limited to, the following information, to the extent available:
  - Type and amount of oil discharged
  - Area affected
  - Projected area of impact if oil is not dispersed
  - Reasons why ISB has been selected
  - On-scene weather

Additional Protocols

- Burning will be conducted by trained professionals using recognized techniques and technology.
- Will be conducted in a way that allows for safe and effective control of the burn, including the ability to rapidly stop the burn.
- Containment and control using fire-resistant boom is the preferred method of burning.
- All practical efforts to limit the potential for igniting the source or adjacent, uncontained, or uncontrollable slicks will be made.

Additional Protocols

- Advised only when meteorological and sea conditions are operationally favorable for a successful burn.
- The OSC will consider wind direction and the possibility of the wind blowing precipitate over population centers or sensitive resources onshore.
- A safety margin of 45 degrees of arc on either side of predicted wind vectors should be considered for shifts in wind direction.
- If conditions change to exceed safety margins during a burn in Zone B, the burn will be extinguished

Schematic Illustration of Zone B In-Situ Burn Recuirements

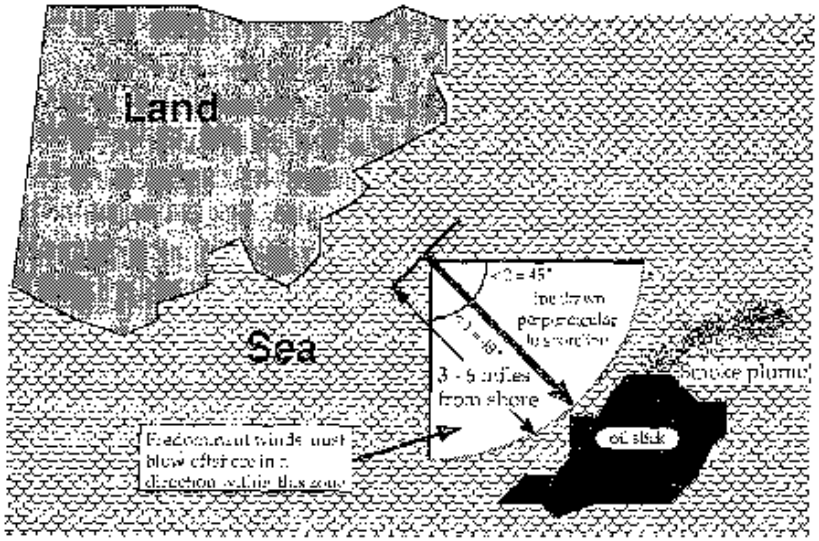


Figure 2

Health & Safety Concerns

OPERATORS:

- Assuring workers' H&S is the responsibility of employers and the OSC, who must comply with all OSHA regulations
- A Site Safety Plan must be prepared prior to ISB operations

Health & Safety Concerns

THE PUBLIC:

- Burning should be stopped if it becomes an unacceptable health risk to the general public.
- If at any time, exposure limits exceed federal air quality standards in nearby populated areas, the OSC will require ISB operations immediately cease.
- The ISB Level of Concern for particulates is 150 ug/m3 (PM-10), averaged over 1 hour
- Public advisories may be required prior to the burn.

Threatened or Endangered Species

- IF T&E species are present in the burn area, trustee agency must be consulted prior to initiating burning.
- Measures will be taken to prevent risk to any wildlife, especially T&E species, such as:
  - Moving burn location to an area where not present
  - Temporary employment of hazing techniques
  - Physical removal of listed species under the authority of the trustee agency
- If risk to T&E species cannot be eliminated or reduced sufficiently, the burn won't be conducted unless a threat to human life exists.

Evaluation/Discontinuation

- The OSC will make every reasonable effort to continuously evaluate the decision to burn, and allow RRT agencies and affected states the opportunity for comment.
- Cognizant reps from trustee agencies, states and EPA will have the responsibility and authority to decide when a burn should be discontinued.

Evaluation/Discontinuation

- Those cognizant reps should be identified prior to start of burn operations.
- Must have verbal authority to call for stoppage of burn.
- Reason & justification for stoppage should be subsequently documented and submitted to the OSC for the record.
- Requests to discontinue a burn, when submitted by agencies with trustee authority, will be immediate grounds for discontinuance of burn operations.

Monitoring

- USCG, EPA, trustee agencies, affected states, OSHA and the RP will have the opportunity to monitor ISB operations, when feasible.
- Unless smoke plumes are predicted to cross over populated or environmentally sensitive areas, an inability to conduct monitoring operations will not be automatic grounds for discontinuing or prohibiting ISB operations.
- Real-time PM-10 monitoring will be initiated when trajectories indicate potential movement towards populated/environmentally sensitive areas, and will be in place prior to the start of burn operations to gather baseline data.

Monitoring

- All burns must incorporate constant visual observations to monitor smoke plume behavior.
- A trial burn may be conducted to better estimate plume behavior prior to operational burning.
- The OSC, EPA, DOC/NOAA, DOI and States should determine under what conditions the burn should be stopped if the plume contacts or threatens the ground in populated or environmentally sensitive areas.
- Mechanical recovery equipment shall be mobilized when feasible for backup and complimentary response capability. Provisions should be made for collection of burn residue following the burn(s).

Post-Incident Debriefing

- Will take place within 45 days to:
  - Gather information concerning effectiveness, and
  - Determine if changes to the MOU are necessary.
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Appendices & Attachments

Appendices:

I. OSC Iin-Situ Burn Decision Diagram

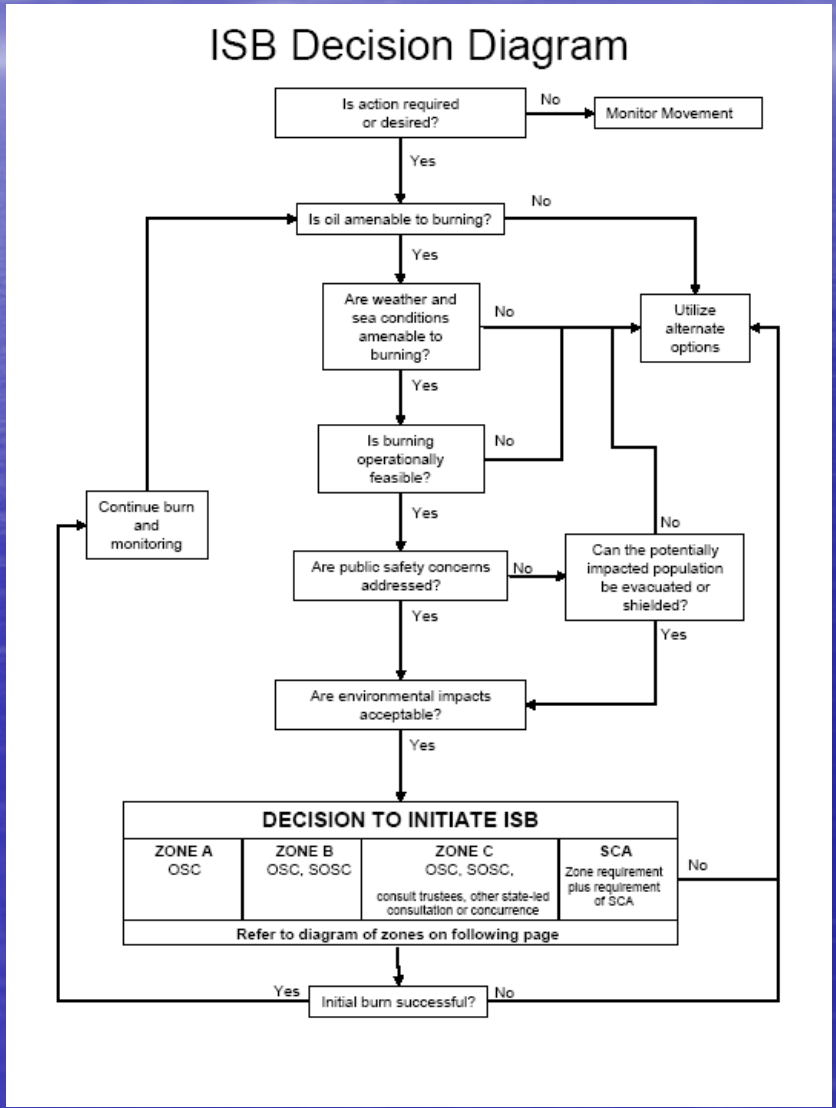
II. ISB Evaluation Checklist

III. ISB Monitoring Protocols

Attachments:

ESA Section 7 Consultations

Appendix I: ISB Decision Diagram



Appendix III: SMART

v. 8/2006

SPECIAL
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Developed by:

U.S. Coast Guard
National Oceanic and Atmospheric Administration
U.S. Environmental Protection Agency
Centers for Disease Control and Prevention
Minerals Management Service

Smoke rising from the *New Carissa*, February 1999. Photo by USCG

Any Questions?