



# REGION 6 REGIONAL RESPONSE TEAM (RRT) WINTER, 2011 MEETING -- San Antonio, TX

MONDAY, November 28, 2011

1000 - 1130

Executive Committee Meeting

MONDAY, November 28, 2011

1300 - 1330	Introduction / Welcome/Administrative Notes (RRT 6 Co-Chairs) / Approval of June, 2011 Meeting Minutes	CAPT Ed Cubanski, USCG; Ragan Broyles, EPA
1330 - 1400	Committee Reports Executive - Steve Mason, EPA Response - Lorie Lafon, FEMA	Preparedness -- Karolien Debusschere, LOSCO Science & Technology - Michael Baccigalopi, TGLO Industry Work Group (IWG) -- John Temperilli
1400 - 1445	Status of All RRT Pre-Authorizations, Expedited Approvals	Executive Committee, RRT
1445 - 1500	BREAK	
1500 - 1530	Integrating the One Gulf Plan with the Regional Contingency Plan	Lt. Chris McKinney, USCG
1530 -1600	Status on National Dispersant Guidance (NRT)	James Staves, EPA
1600 - 1645	Industry Perspective on Value of Dispersants API Subsea Dispersant Work Plan	Tim Nedwed, ExxonMobil
1645 - 1730	MagnaBlend Fire & Explosion Response	Nick Brescia, Steve Mason, EPA; Jeff Kunze, TCEQ

# REGION 6 REGIONAL RESPONSE TEAM (RRT) 2011 WINTER MEETING - SAN ANTONIO, TX

TUESDAY, November 29, 2011

0800 - 0930	USCG Captain of the Ports Reports	USCG Captain of the Ports
0930 - 0945	BREAK	
0945 - 1015	NLE11 After Action Summary	Lorie Lafon, FEMA
1015 - 1100	State Agency Reports	
1100 - 1115	Drought Effects on Refineries, Chemical Plants	John Temperilli, SWS
1115 - 1230	LUNCH	
1230 - 1330	Natural Disaster Operations Workgroup	Nick Brescia, EPA; Lt. Denham, USCG
1330 - 1345	BREAK	
1345 - 1445	Federal Agency Reports	
1445 - 1500	Closing Remarks	CAPT Ed Cubanski, USCG; Ragan Broyles, EPA
1515 - 1700	Region IV & VI Dispersant Meeting	<ul style="list-style-type: none"> <li>• Outreach initiative for Industry on the sampling and monitoring requirements for subsurface dispersant application</li> <li>• Line of demarcation in the Gulf for R4/R6 dispersant decision making.</li> <li>• Potential for gulf wide alignment of solidifier, bioremediation, dispersant pre-authorization, etc. policies.</li> </ul>

# The Deepwater Horizon: Impact on Dispersant Use Policies



# Pre-DWH

## Relevant Regulations, Plans, and Documents

- NCP subpart J, Use of Dispersants and Other Chemicals
- Region 6 Interim Regional Integrated Contingency Plan, May 2010
- One Gulf Plan (ACP), 2010
- RRT 6 FOSC Dispersant Pre-Approval Guidelines and Checklist, version 4.0, 2001
- US DOI Section 7 consultation letter, Jan 5, 1995
- NOAA Section 7 consultation letter, Sept 8, 1994



# Specific Requirements Developed during the DWH spill response

- Dispersant Monitoring and Assessment Directive – May 9, 2010
  - Proof of concept (subsea dispersant injection)
  - Characterization plan
  - Operational shutdown criteria
    - Dissolved oxygen below 2 ppm
    - Rototox toxicity deemed excessive by EPA and NOAA.
    - Note: Actual shutdown decision to be advised by RRT.



# Requirements Developed during the DWH spill response (cont)

- Dispersant Monitoring and Assessment Directive – Addendum 1, May 14, 2010
  - Continuous implementation of monitoring
  - EPA/NOAA scientist participation
  - LISST Particle Size Analysis
  - Daily data reporting
- Addenda 2 – 4
  - Dispersant alternatives / reduction
  - DO probe calibration via Winkler titrations



# NRT Guidance to Regional Response Team Co-Chairs, Dec 16, 2010

- When Revising RCPs and ACPs, consider:
  - Hierarchies for response methods
  - Site Specific Rationale
  - Limitations on Pre-Authorization
  - Subsea Dispersants
  - SMART Protocols
  - Transparency
  - Endangered Species Protection



# NRT / RRT Dispersant Conference Feb 23, 1011



***NRT-RRT Dispersant  
Conference***

**February 23, 2011**

EPA Headquarters  
Potomac Yards Office  
2777 South Crystal Drive  
One Potomac Yards  
Arlington, VA 22202  
First Floor Conference Center



RSVP to [faulkner.mike@epa.gov](mailto:faulkner.mike@epa.gov) and [michael\\_lengle@sra.com](mailto:michael_lengle@sra.com)  
Questions should be submitted to [faulkner.mike@epa.gov](mailto:faulkner.mike@epa.gov)



# NRT Committee Actions

- NCP Subpart J Workgroup – will address dispersant listing requirements
- NRT S&T committee is working on guidance for long term surface application.
- Subsea Dispersant Workgroup developed guidance for subsea dispersant use
- Daily Reporting Workgroup developed to:
  - Develop guidance on daily dispersant application reporting



# RRT 6 Actions

- Preparedness Committee – Dispersant Workgroup established to review / revise dispersant preauthorization
- Response Committee tasked with review / revision of the RCP – New Chair appointed (Lorie Lafon, FEMA)



# EPA Region 6 Interim policy on Dispersant Use

(Letter to BOEMRE, March 28, 2011)

- Dispersants may be applied to surface spills that are continuous and uncontrollable in nature, but the Federal On-Scene Coordinator (FOSC) should convene an incident specific RRT meeting as soon as is practical, and not to exceed 5 days after initiation of dispersant application.



# EPA Region 6 Interim policy on Dispersant Use

(Letter to BOEMRE, March 28, 2011)

- Subsurface dispersant use may be approved for spills on an incident specific basis as requested by the FOSC. Incident specific monitoring shall be developed consistent with the DWH Subsurface Dispersant Directive and Addendum 1.  
<http://www.epa.gov/bpspill/dispersants/subsurface-dispersant-directive-final.pdf>



# Other Agency Actions

- BOEMRE
  - Notice to lessees clarifies acceptance of subsurface dispersant application as a valid response measure for responding to worst case discharges for certain offshore wells
  - Ocean Energy Safety Advisory Committee – Spill Response Subcommittee (*regulatory development*)
- NOAA/UNH Coastal Response Research Center – Future of Dispersant Use in Spill Response (*prioritizing research needs*)



# Petroleum Industry Response

- API Subsea Dispersant Joint Industry Task Force
  - Research and development of subsea dispersant injection technologies
- Marine Well Containment Corporation
  - Supported by 10 major exploration and production corporations in GOM
  - subsurface containment, as well as dispersant injection.





# Interim Guidance Highlights

- Significantly influenced by Dispersant Monitoring and Assessment Directive, Addenda 1, 2, and 4.
- *Monitoring and sampling resources are expected to be on location, operational, and manned before subsea application of dispersants commences*
- *The Subsea Dispersant Application Monitoring Plan should ...include Sediment Sampling and Monitoring, Water Sampling and Monitoring, and Airborne Volatile Organic Compound (VOC) Assessment*



# Interim Guidance Highlights (cont)

- Sampling plans are intended to be developed and implemented by the Responsible Party
- Includes acute (ie. Rototox) and sublethal toxicity testing requirements (RP may substitute an alternative ecotoxicity plan).
- Data reporting to FOSC within 24 hrs of collection



# Interim Guidance Highlights (cont)

- Requires operational shutdown criteria (ie. D.O. reduction  $> 2$  mg/L or excessive toxicity)
- Quality Assurance Project Plan (QAPP)



# Provide Comments to:

Mike Faulkner (EPA), NRT Executive Director  
([Faulkner.Mike@epa.gov](mailto:Faulkner.Mike@epa.gov)),

Bob Pond (USCG), NRT Subsea Dispersant  
Subcommittee Chair  
([Robert.G.Pond@uscg.mil](mailto:Robert.G.Pond@uscg.mil)), and

Rebecca Tirrell (SRA International, Inc.), EPA  
Support Contractor ([Rebecca\\_Tirrell@sra.com](mailto:Rebecca_Tirrell@sra.com)).





# **The Value of Dispersants for Oil Spill Response**

**Tim Nedwed (URC)**

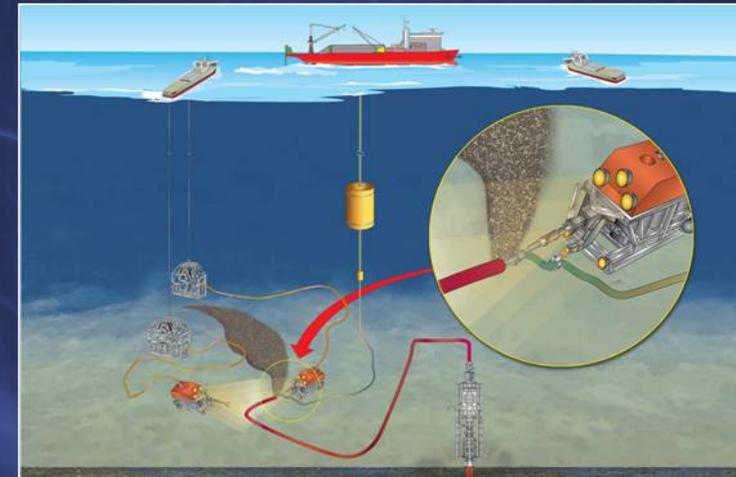
**RRT IV / VI Executive Committee Meeting  
San Antonio, TX, November 28, 2011**

**ExxonMobil**

# Introduction

## Topics of Discussion

- Oil spill response options
- Background on dispersants
- Deepwater Horizon Incident
- Summary



# Spill Response Options: *The Toolbox*



**Mechanical Recovery: Booms & Skimmers**



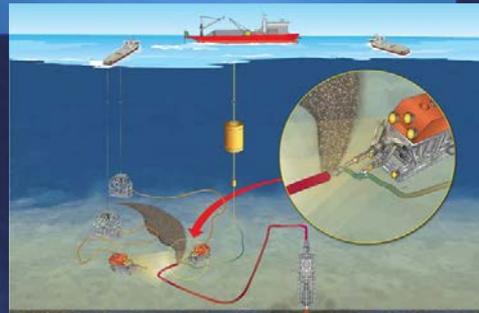
**Monitor & Evaluate**



**In-Situ Burning**



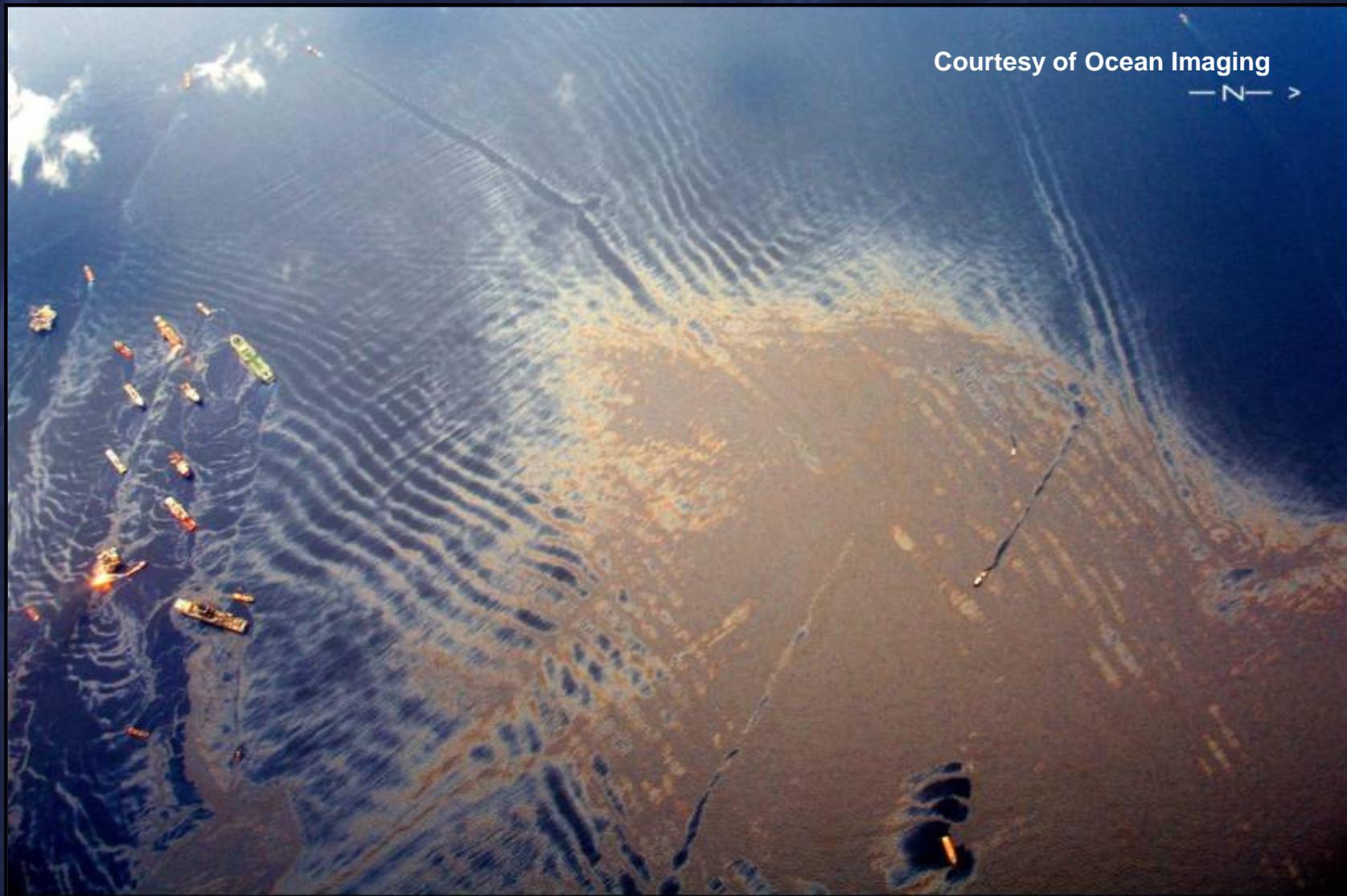
**Aerial Dispersants**



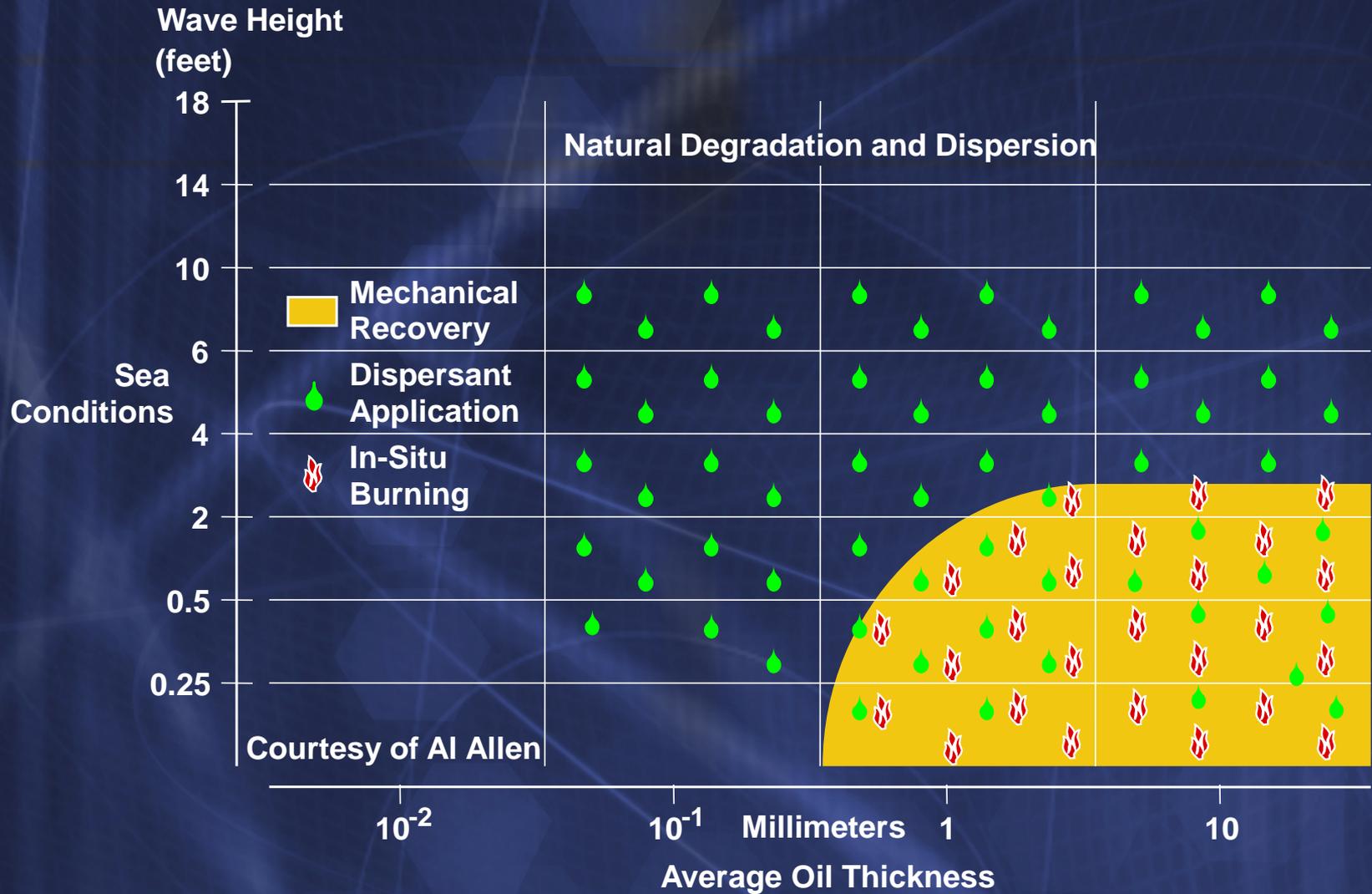
**Subsea Dispersants**

**The goal is to design a response strategy based on *Net Environmental Benefit Analysis***

# Encounter Rate is Key to Offshore Response

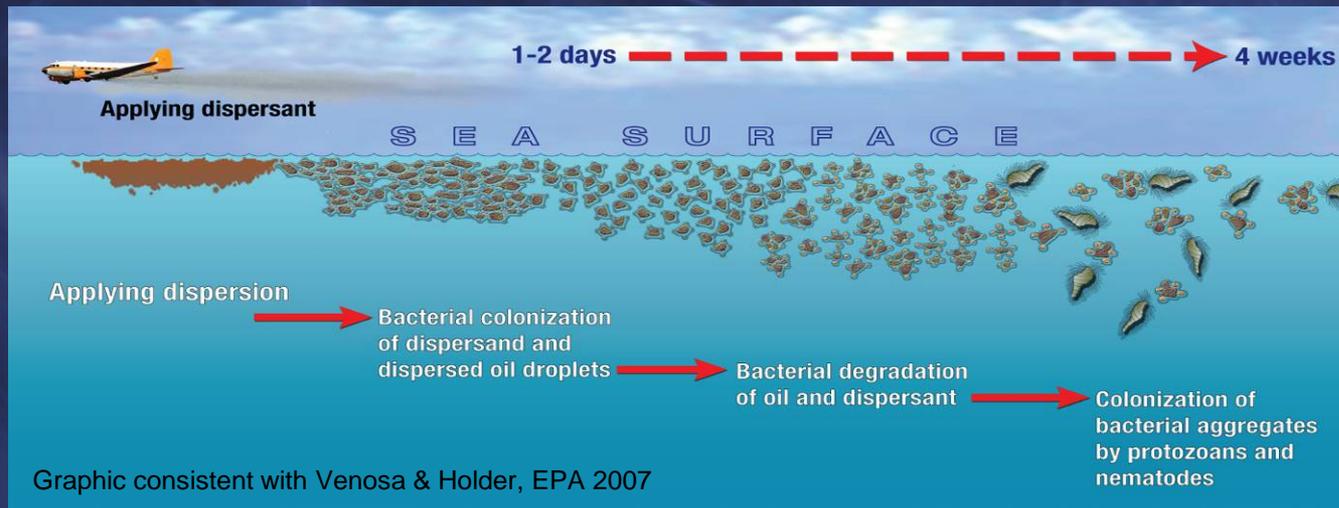


# Spill Conditions Limit Response Options



# Dispersants – What are they?

- Dispersants are solutions of surfactants dissolved in a solvent
- Surfactants reduce oil-water interfacial tension – allows slicks to disperse into very small droplets with minimal wave energy
- Dispersed oil rapidly dilutes to concentrations  $<10$  ppm within minutes,  $<1$  ppm within hours, ppb range within a day
- Each dispersed oil droplet is a concentrated food source that is rapidly colonized and degraded by marine bacteria
- Dilution allows biodegradation to occur without nutrient or oxygen limits



# Environmental Impacts

- Toxicity of oil > toxicity of the dispersant
- Modern dispersants use ingredients found in household products

## Other Uses of Corexit 9500 Ingredients (from Nalco website)

Corexit 9500 Ingredients	Common Day-to-Day Use Examples
Span 80 (surfactant)	Skin cream, body shampoo, emulsifier in juice
Tween 80 (surfactant)	Baby bath, mouth wash, face lotion, emulsifier in food
Tween 85 (surfactant)	Body/Face lotion, tanning lotions
Aerosol OT (surfactant)	Wetting agent in cosmetic products, gelatin, beverages
Glycol butyl ether (solvent)	Household cleaning products
Isopar M (solvent)	Air freshener, cleaner



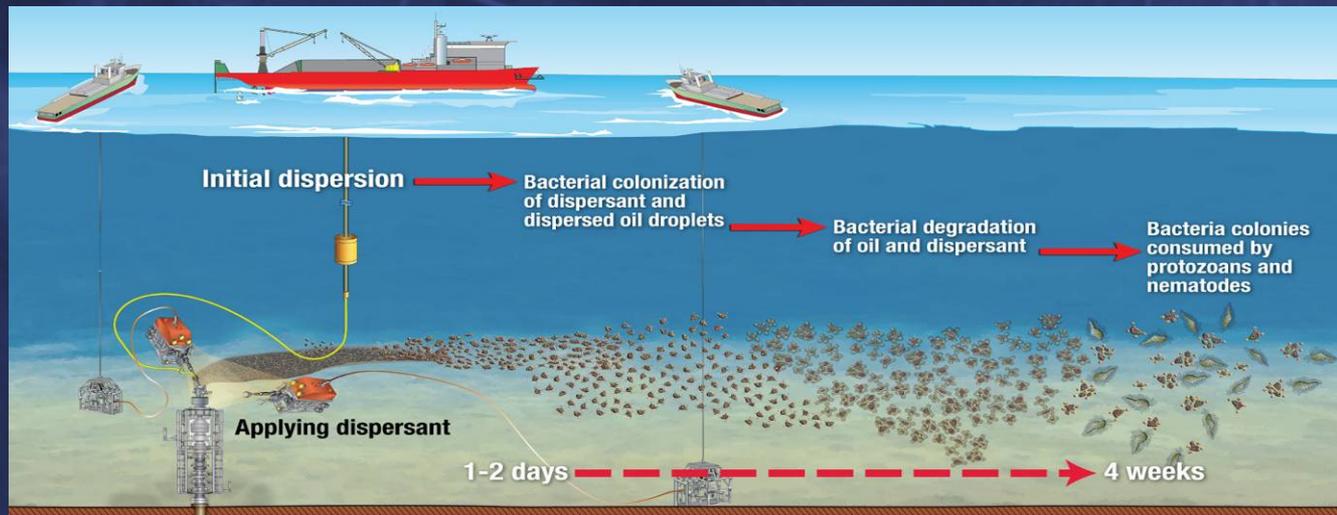
Harrell L. Christie, Aquarium of Moody Gardens

Organisms used in EPA's toxicity tests



# Subsea Injection of Dispersants

- Preliminary observations of DWH experience
- Benefits of subsea injection
- Long-term fate and effects



# Release Site May 9 Prior to Injection



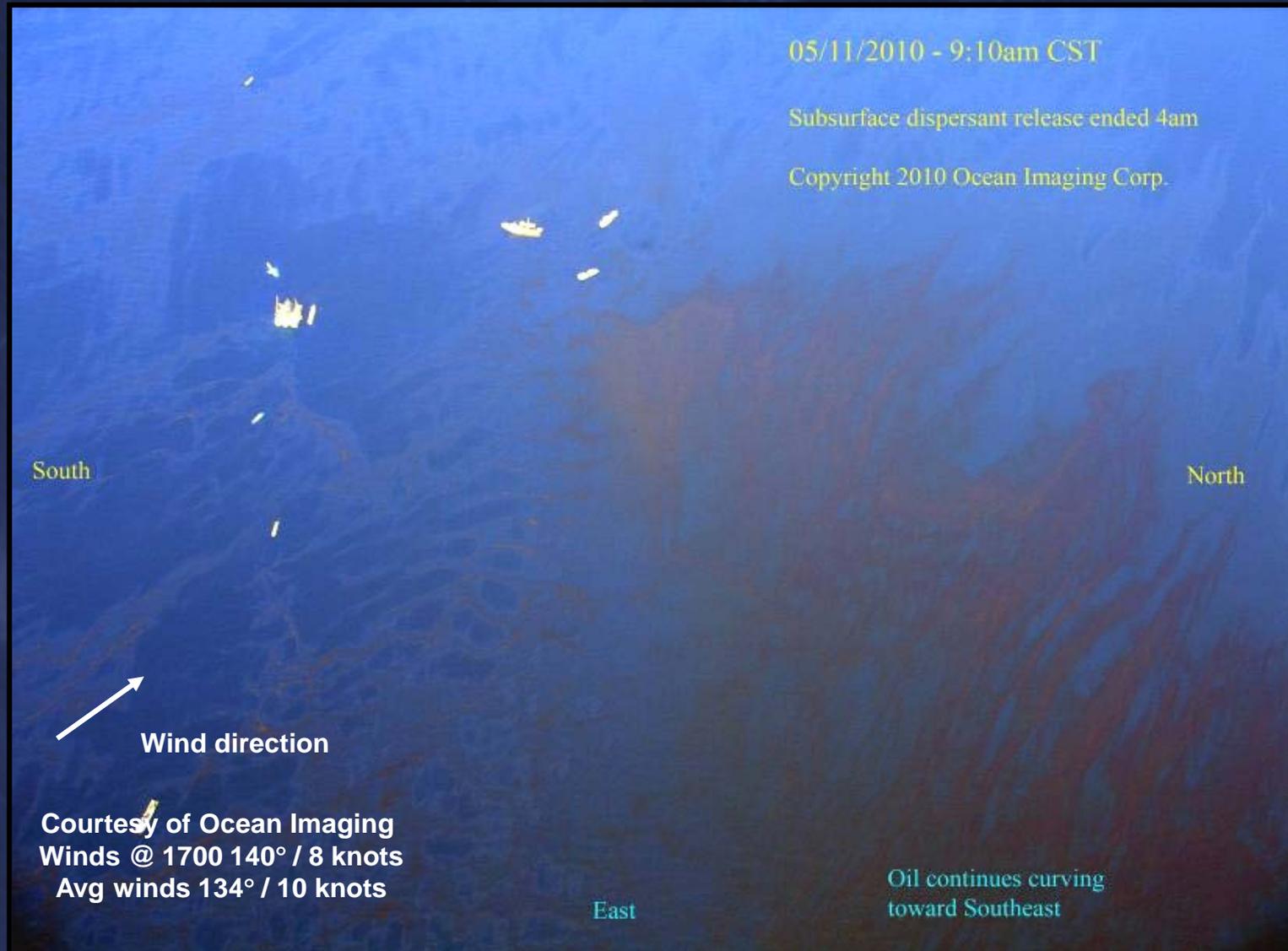
# Release Site May 10: 3 hrs of Injection



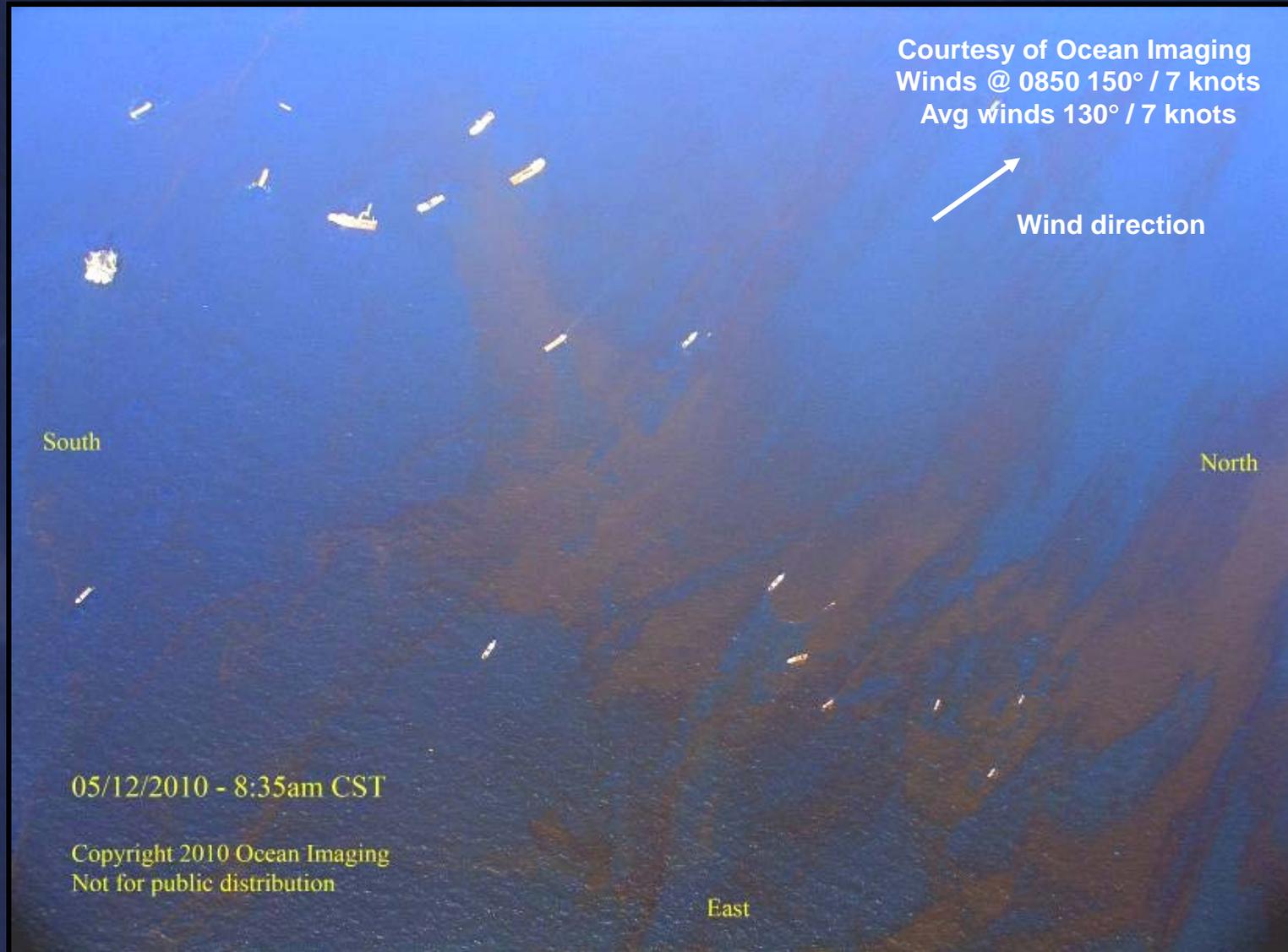
# Release Site May 10: 11 hrs of Injection



# Release Site May 11 5 hrs after Injection Ended



# Release Site May 12 28 hrs After Injection Ended



# Summary

- **Along with prevention, robust oil spill response (OSR) is critical**
- **Highest priority in emergency response is human health and safety**
- **Basic strategy for addressing oil spilled from an offshore well**
  - **Respond as close to the source as possible**
  - **Utilize all appropriate tools to keep oil from reaching shorelines**
- **Dispersant use presents a necessary tradeoff given the limitations of mechanical recovery and should be a primary response option**
- **Subsea injection is a step-change advance that may reduce spill impacts by an order of magnitude**
- **More research is needed to optimize subsea injection and better understand the long term effects of dispersed oil in deep waters**

**The End**

# Draft for Discussion Purposes Only

## Preliminary Work Plan for OSR JITF Recommendation

**Work Item # & Short Description:** D-3 / Review of Subsea Application Techniques

**Project Leader:** Tim Nedwed (ExxonMobil)

### **Project Objectives:**

Overall: Conduct research and development on subsea injection of dispersants to provide optimal implementation methods, data on effectiveness, and potential environmental effects – focus is ice-free open-water environments

Specific:

1. **Effectiveness:** develop subsea injection methods / equipment and evaluate effectiveness
2. **Fate and effects:** evaluate the biodegradation, bioaccumulation, and toxicity of dispersed oil on deepwater communities
3. **Modeling:** enhance existing numerical tools to track dispersed oil plumes resulting from subsea injection
4. **Monitoring:** evaluate field monitoring criteria and provide a recommended monitoring plan (includes near, mid, far field monitoring)
5. **Project communication:** Conduct Net Environmental Benefit Analysis and perform regulatory outreach

# 1. Evaluate subsea injection methods / equipment and effectiveness

**Background:** Develop recommended subsea injection methodology and equipment considering cost and need

## **Tasks:**

1. Summarize how subsea injection was utilized during the Macondo response
2. Collect and summarize data showing effectiveness of subsea injection during the Macondo incident to provide information for advocacy efforts
3. Review previous research and provide summary report
4. Review MWCC, OGP GIRG, Helix, and other potential subsea injection systems
5. Develop CFD model to simulate near-field turbulence for a range of subsea release scenarios to understand energy available for break-up of dispersant-treated oil
6. Review and evaluate an optimal subsea injection system considering cost and need
7. Review and evaluate an air-transportable subsea injection system for use outside GOM
8. Conduct scaled testing and field testing
  - a) Simulate the Macondo injection methods
  - b) MWCC, OGP GIRG, Helix, other and optimal system
  - c) Include evaluation of other dispersants including new solvent-free dispersants
9. Coordinate technical advisory committee (hold meetings and produce minutes)

## **Deliverables:**

- Report summarizing subsea injection during Macondo response
- Report summarizing previous research on subsea injection of dispersants
- Summary report of MWCC, OGP GIRG, and other subsea injection systems
- Report describing design of optimal system
- Reports describing scaled and field testing
- Peer reviewed papers and conference presentations

## 2. Evaluate the biodegradation, bioaccumulation, and toxicity of dispersants & dispersed oil on deepwater communities

**Background:** There are limited data on dispersed oil biodegradation and toxicity and dispersant bioaccumulation using organisms and conditions representative of deepwater environments.

### Tasks:

1. Review previous research on dispersed oil / dispersant biodegradation, bioaccumulation, and toxicity and provide summary report
2. Hold a workshop of biodegradation, bioaccumulation, and toxicity experts to identify relevant deepwater test organisms and test protocols (key concerns are variation in deepwater environments and need to represent multiple regions with different organisms and the challenges of conducting representative testing)
  - a) Identify test oils, test dispersants, and representative test organisms
3. Develop test protocols and conduct biodegradation tests of dispersed oil and dispersant using seawater samples collected from deepwater
4. Develop test protocols and conduct toxicity tests of dispersed oil and dispersant using organisms identified during workshop
5. If task 2 indicates further work is needed, develop test protocols and evaluate the bioaccumulation potential of dispersants in deepwater
6. Coordinate technical advisory committee (hold meetings and produce minutes)

### Deliverables:

- Report summarizing previous research on dispersed oil biodegradation and toxicity
- Report describing biodegradation / bioaccumulation / toxicity experts workshop and workshop findings
- Report describing tests oils and test protocols
- Report/s describing results of biodegradation, bioaccumulation, and toxicity tests
- Peer reviewed papers and conference presentations (at least one each for biodeg, bioaccumulation, and toxicity)

### 3. Enhance existing numerical tools to model dispersed oil plumes resulting from subsea injection

**Background:** Subsea plume models exist but may need additional enhancements and validation to accurately simulate subsea dispersed oil plumes. These models will predict the plume fate and dilution for dispersant-treated and untreated oil.

#### **Tasks:**

- Identify suitable external models (CDOG, ASA, SINTEF, other)
- Meet with modelers to identify model needs
- Develop plan for upgrading models if necessary
- Ensure scaled / field testing data collection in Tasks 1 provides information needed to upgrade and validate models
- Validate models using results of field testing performed in Tasks 1
- Coordinate technical advisory committee (hold meetings and produce minutes)

#### **Deliverables:**

- Report describing capabilities of existing models; previous validation work; capabilities wrt dispersed oil
- List of model upgrade needs and verification that scaled / field testing will collect necessary data
- Report describing validation of models
- Peer reviewed paper and conference presentation describing models, upgrades, and validation work

## 4. Evaluate field monitoring criteria and provide a recommended monitoring plan (includes near, mid, far field monitoring)

**Background:** Contingency planning for subsea injection use during a deepwater release will require a monitoring plan similar to the SMART protocol used for surface dispersant application. In addition, regulations covering subsea injection of dispersants may include collection of environmental monitoring data; potential requirements are mid and far field plume tracking, dispersed oil concentrations, and plume toxicity.

### **Tasks:**

- Summarize how subsea dispersed oil monitoring was accomplished during the Macondo incident, including mid – far field monitoring and sampling (obtain BP's subsea injection monitoring plan)
- Evaluate other monitoring technologies (e.g., AUVs, ROVs, gliders)
- Identify and consider key points in the EPA May 10, 2010 Directive and May 14 Addendum that defined subsea dispersant injection monitoring
- Identify and consider recommendations made in API letter to NRT on dispersant pre-authorization and subsea dispersant monitoring needs
- Develop a best practice mid to far field monitoring and sampling plan (may be a near-term need for GOM permitting)
- Develop tests plans to evaluate monitoring technologies during scaled and field testing planned for project 1
- Evaluate monitoring technologies during scaled and field testing planned for project 1
- Coordinate technical advisory committee (hold meetings and produce minutes)

### **Deliverables:**

- Report describing how subsea dispersed oil near, mid, far-field monitoring and sampling was accomplished during the Macondo incident
- Report on other monitoring technologies
- Quarterly summaries of regulatory status
- Test plans for evaluating monitoring technologies
- Report describing monitoring technologies performance during scaled and field testing and recommended monitoring best practice
- Report describing best practice monitoring and sampling plan
- Peer reviewed paper and conference presentation describing monitoring technologies performance and recommended best practice

## **5. Conduct Net Environmental Benefit Analysis and develop regulatory outreach strategy**

**Background:** The goal of the prior four tasks is to develop science that evaluates the use of subsea injection of dispersants. This subproject will develop tools to communicate the information generated during the project.

### **Tasks:**

- Develop short (~1 page) summary reports to support industry dialogue with regulators as project information is generated
- Prepare monthly post cards of project progress and send to stakeholders / others
- Conduct NEBA workshop / gap analysis with key regulators / stakeholders

### **Deliverables:**

- Short summary reports (1 pagers described in task above) as project progresses
- Monthly post card of project progress sent to stakeholders / others
- Report describing findings of NEBA workshops

# Magnablend Fire

Waxahachie, TX



# Incident

- Chemical Facility caught fire during a blending operation
- USEPA FOSC/TCEQ SOSC were informed that the blending operation of two new products created a hydrogen release that ignited from an overhead crane
- Sprinkler system was overwhelmed and the entire facility burned excluding one annex that stored a mulch product and the chemistry lab
- Chemicals onsite were in the following hazard classes: Flammables, Acids, Oxidizers, etc. Seven railcars were present adjacent to the site and were affected by the fire. No release occurred. Railcars contained NAPTHA and other associated petroleum products.
- Fire Department did not have foam, and since many of the chemicals burning were petroleum products, the fire continued and firewater runoff was a problem

# Initial Situation

- Civil Emergency declared and a 1 mile area surrounding the facility was evacuated
- Approximately 1,000 people were evacuated via police, fire and national guard
- Met with Fire Chief and was briefed on fire fighting activities and evacuation order.
- Met with RP and received an initial chemical list for the facility. Tier II data was available as FOSC left office.

# USEPA actions

- **Contacted NARAC and requested a 24 hour plume model with one hour models (NARAC informed OSC that a model was already requested and that the OSC had to put in a new request, quick discussion, and they released the model to OSC. DHS had already pulled the trigger and NARAC had to call DHS for permission to give it to OSC.**
- **Sent USEPA ERT the chemical list and confirmed that Particulate and VOC monitoring was adequate**
- **USEPA ERT confirmed and USEPA START began conducting air monitoring downwind of the plume at ¼, ½ and 1 mile points while utilizing the NARAC plume model.**
- **Dispatched ASPECT (currently in New Mexico) to site for overflight (ETA was 3 hours)**
- **Informed RP that they needed to conduct air monitoring activities, along with firewater containment, water sampling, and recovery operations. Firewater had migrated off-site into a ditch and ran approximately 2 miles adjacent to an elementary school, major roadway and into ponds on private property.**
- **RP contracted CTEH (Air Monitoring Contractor) and TAS Environmental (Hazmat Contractor). TAS was onsite before OSC.**
- **RP insurance company dispatched ES&H to site to manage all contractors for the RP and to run the response. Overall, there were four contractors on site: TAS, ES&H, SWR, and CTEH**
- **USEPA & CTEH collected multiple water samples of the firewater**

# TCEQ Actions

- **Conducted initial response with Region 4 (DFW) staff. Incorporated initial activities into local jurisdiction ICS (still emergency phase-firefighting/containment)**
- **Strike Team was deployed at approximately 1100 hours with initial staff arrival at 1500 hours**
- **Coordinated immediate and on-going population potential hazard assessment**
- **6th Civil Support Team was deployed with arrival at approximately 1800 hours**
- **Combined monitoring activities w/EPA/START/6<sup>th</sup> CST/RP contractor**
- **Hosted Command, Planning and Operational briefings for first 72 hours**
- **Regional staff continuing air, water and soil remediation oversight activities**

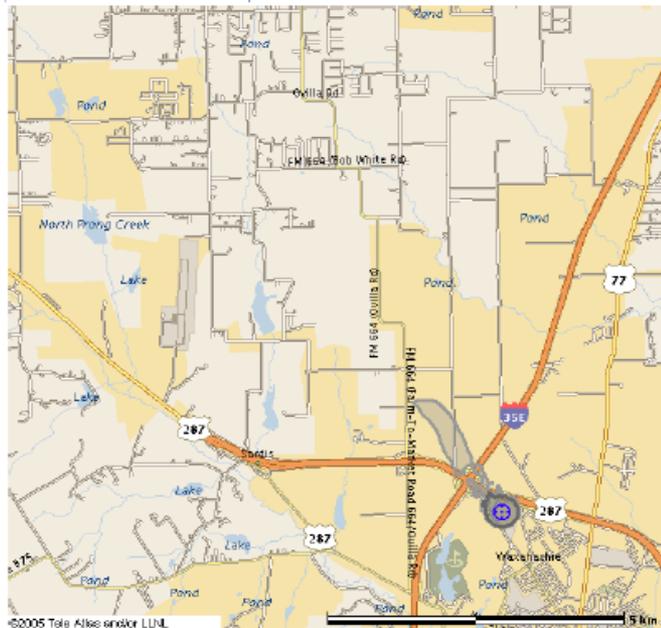
# NARAC Plume Model



Not For Public Dissemination

1 Hr Avg Air Conc. at 10/03/2011 21:00:00 UTC

12-Hr Forecast Updated  
Automated Report - Actual Release



©2005 Tele Atlas and/or LUL

Map Size: 11.1 km by 11.1 km Id: Production.roE19103.roC1

NARAC Operations: ( onDuty Assessor ); narac@linal.gov; 925-424-6465

Requested by: (Daniel Gates; DHS NOC; 202-282-8101)

Approved by: (IMAAC Operations Coordinator; IMAAC; 925-424-6465)

## Effects and Actions

Description	(g/m3) Extent Area	Population
No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-8 426 m 251,911 m2	250
No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>5.00E-9 2,451 m 981,339 m2	450

Note: Areas and counts in the table are cumulative. Population Source = LandScan USA V1.0.

Effects or contamination from October 03, 2011 20:00 UTC to October 03, 2011 21:00 UTC

Release Location: 32.421501 N, 96.856739 W

Material: particulate

Generated On: October 03, 2011 18:02 UTC

Model: ADAPT/LODI

Comments:

Hypothetical release

of 1 kg starting at

10/03/2011 18:00:00 UTC for 12 hr

gridded met

# USEPA and TCEQ actions

- **TCEQ Strike Team arrived on site (SOSC Kunze)**
- **CST out of Austin arrived on site and worked under TCEQ**
- **USEPA FOSC/TCEQ SOSC created Unified Command with the RP and local emergency agencies**
- **An Incident Action Plan (IAP) began with a 24 hour Ops Cycle, delivering operational briefings 3 times a day**
- **USEPA FOSC with consultation from USEPA ERT created an air monitoring/sampling plan which was evaluated and agreed upon by TCEQ SOSC for the RP to follow which included Particulate monitoring, VOC and TOXIC monitoring/sampling for chemicals of concern via the chemical inventory list provided by RP**

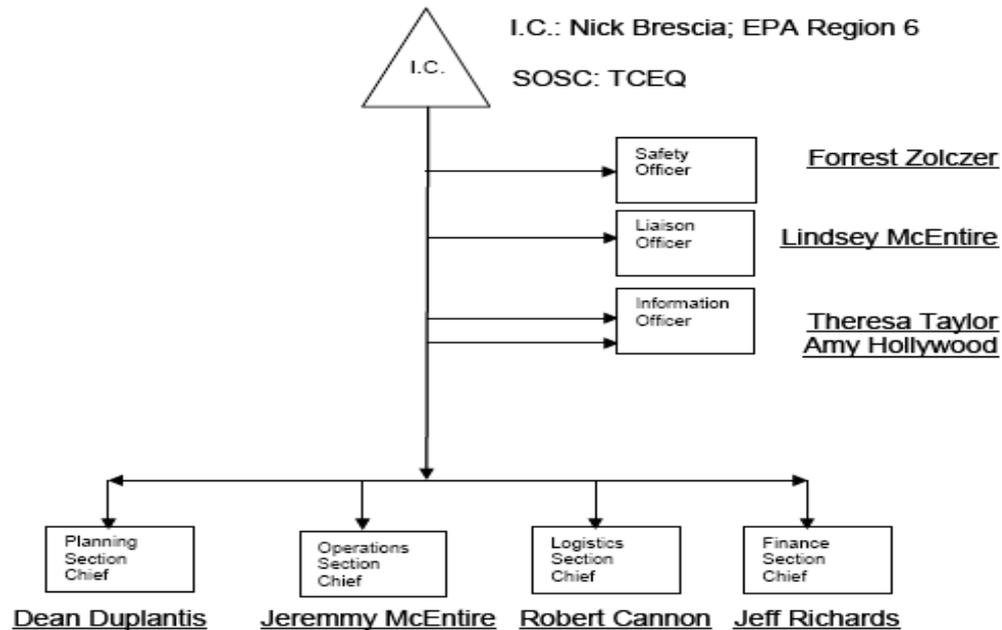
# IAP began with a reporting process



Prepared for:  
**Magnablend Inc.**

## INCIDENT BRIEFING 201 - 3

### CURRENT ORGANIZATION



# IAP and Air Monitoring/Sampling Plan



Prepared for:  
**Magnablend Inc.**

## INCIDENT BRIEFING ICS 201 – 2A

### SUMMARY OF CURRENT ACTIONS

**October 3, 2011:**

Initial Briefing: Mr. Jeremmy McEntire offered the following information in the initial work plan briefing:

- 1) Air monitoring will be conducted in 1 hour intervals until the fire is extinguished and all chemicals have been secured. This includes conducting air monitoring during any removal operations during cleanup.
- 2) Monitoring will include Volatile Organic Compounds (VOCs) readings, Particulates, and CO, H<sub>2</sub>S, & O<sub>2</sub>.
- 3) Depending on wind and weather conditions, monitoring will be conducted in quadrants identified below and map provided.  
Quadrants:
  - 1) Northeast Quadrant. East of Railroad tracks and north of US 287.
  - 2) Southeast Quadrant. East of Railroad tracks and south of US 287.
  - 3) Southwest Quadrant. West of Railroad tracks and south of US 287.
  - 4) Northwest Quadrant. West of Railroad tracks and north of Us 287.
- 4) Weather conditions will be monitored continuously and air monitoring will be directed towards any downwind areas.
- 5) Monitoring offsite VOC and particulate action levels:  
Any particulate readings reaching 65 micrograms/cubic meter (ppb) will trigger continuous monitoring in the zone of concern. Once readings drop below 30 ppb, 1 hour monitoring intervals may be resumed.  
Any VOC or toxic gas sensor reading reaching 1 ppm will trigger continuous monitoring in the zone of concern. If readings reach or exceed 5 ppm, a grab sample will be collected if readings remain at 5 ppm longer than 1 hour and 12 hour SUMA sample will be collected.
- 6) Monitoring offsite VOC and particulate action levels: Any particulate readings reaching 65 micrograms/cubic meter (ppb) will trigger continuous monitoring in the zone of concern. Once readings drop below 30 ppb, 1 hour monitoring intervals may be resumed.
- 7) If offsite particulate or chemical sensor action levels are reached or exceeded, EPA, TCEQ, and WFD shall be contacted immediately for further review and action.
- 8) Four hour situation reports will be provided to EPA, TCEQ, and WFD. Preferred deliverance of data files will be in SCRIBE format. Report will define average air monitoring readings throughout the 24 & 4 hour period including any measurement exceedance of particulate and VOC action levels. Any action levels exceeded should be referred to EPA and TCEQ immediately via cell phone. Contact list is provided.

# USEPA ASPECT Photo



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Figure 2. ASPECT Aerial Oblique Image, Magnablend Chemical Fire

# USEPA ASPECT Flight Paths

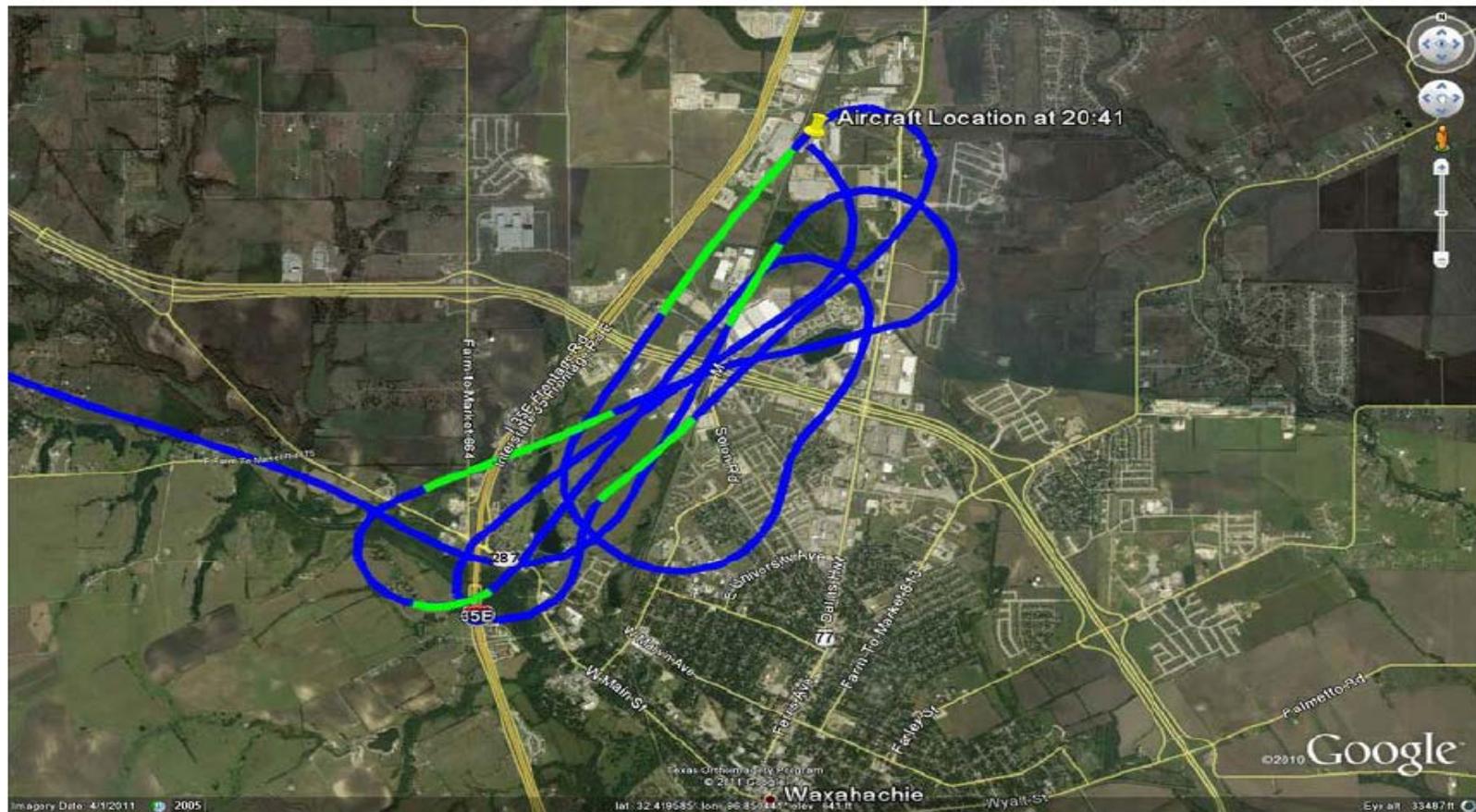


Figure 4. Flight and Chemical Tracks, Magnablend Chemical Fire

# USEPA ASPECT Detections

Table 2. FTIR data set and detection notations

Run	Compound	Max Concentration ppm
1	System Test	---
2	Propylene oxide	0.564
3	Isobutylene, Propylene oxide	0.924 (iso), 0.537 (prop)
4	Propylene oxide	0.545
5	Propylene oxide	0.544
6	No Detections	
7	Not processed at this time.	

Analysis of FTIR data showed low levels of a propylene oxide and isobutylene detected downwind of the fire. Figure 7 shows a representative spectra for propylene oxide. Propylene oxide has a strong features near 810 and 880 wave numbers and was

# USEPA ASPECT Infrared Image helped RP foam remaining hot spots

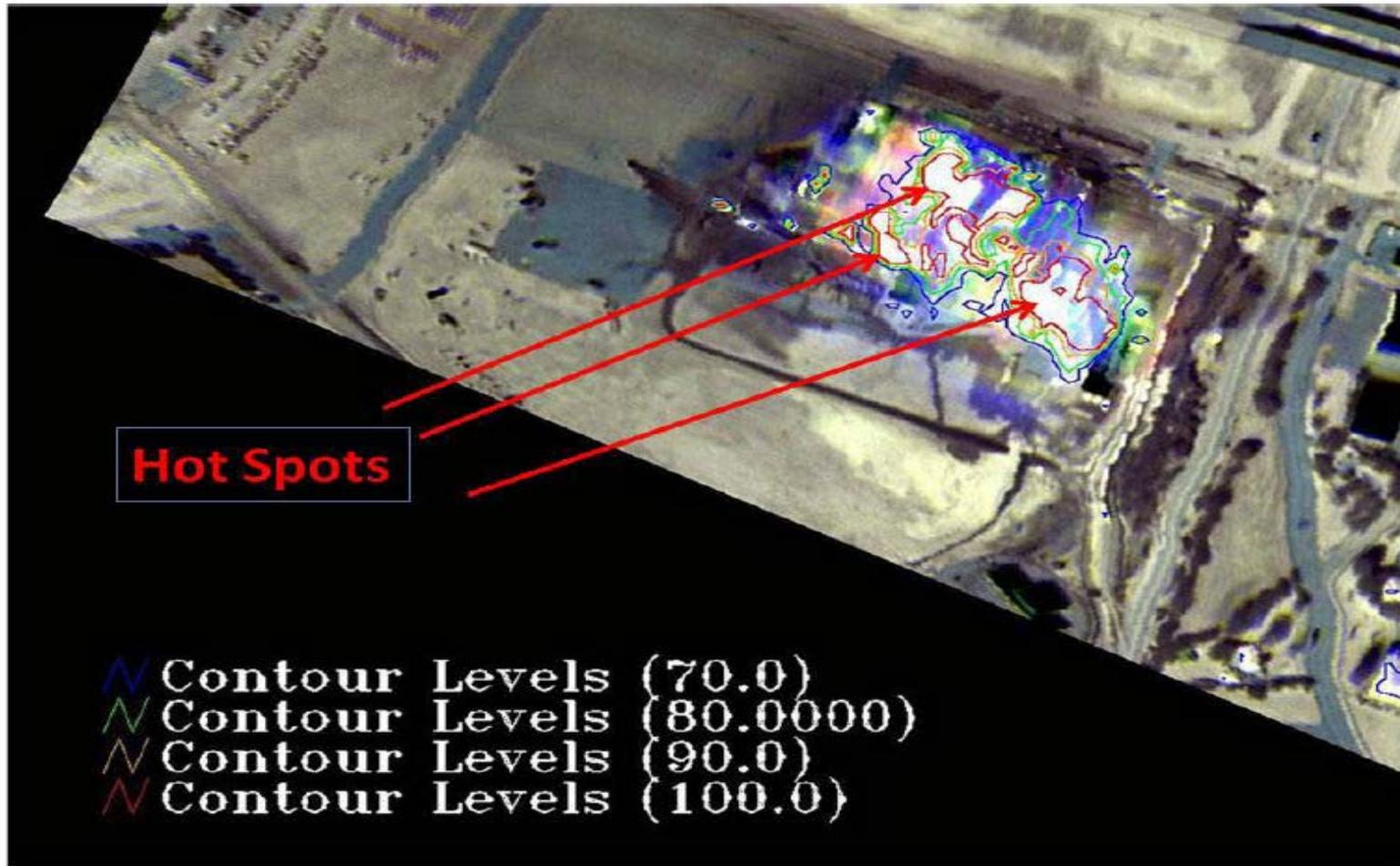


Figure 6. Thermal Analysis, Magnablend Chemical Fire

# Air Monitoring Points by USEPA (18 total locations-29 rounds of monitoring)

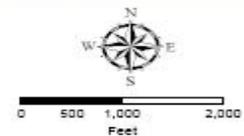


## Legend

-  Air Monitoring Locations
-  Site

## US EPA REGION 6 Air Monitoring Locations

Magnablend Chemical Fire  
October 5, 2011





# Air Monitoring Plan

- **USEPA conducted 29 rounds of air monitoring downwind and around the perimeter of the facility**
- **The populated areas were primarily located East and SE of the facility. These areas included schools and residential areas. The residential area downwind of the plume, roughly 1.5 mile downwind, did not have any elevated readings, however, elevated readings were found in several locations within the immediate area of the site but did not persist**
- **TCEQ conducted area monitoring primarily outside of the perimeter of the facility. CST was also on site for the first day and conducted air monitoring for TOXICS**
- **CTEH conducted air monitoring continuously around the facility and downwind of the facility. CTEH also conducted air sampling activities for VOCs and TOXICS using Summa canisters and Draeger tubes around the perimeter of the facility.**
- **USEPA-TCEQ air monitoring plan called for particulate and VOC monitoring with action levels set at 65 ppb for particulates and 1 ppm for VOC or Toxic Gas Sensor readings. Any elevated readings found would be relayed to EPA FOSC/TCEQ SOSC immediately for review.**
- **SO<sub>2</sub> was detected between 1-5 ppm at several locations, so a NIOSH STEL of 2.5 ppm was established as the action level to be used for any 15 minute reading that was continuous. This STEL was never reached. USEPA ERT was consulted on which STEL to utilize since all STELs are for worker safety. USEPA ERT informed the FOSC to utilize half of the NIOSH STEL for SO<sub>2</sub> (5 ppm) for citizens.**

# IAP CTEH data



Prepared for:  
**Magnablend Inc.**

## INCIDENT BRIEFING ICS 201 – 2F

### SUMMARY OF CURRENT ACTIONS

**Summary of Real-Time Air Monitoring Conducted Between 00:00 and 20:00 on October 4, 2011. (Provided by CTEH)**

Analyte	Number of Readings	Number of Detects	Average Detect Concentration	Max Concentration	Unit of Measure
Acid Gases	3	0	NA	NA	ppm
Acrolein	1	0	NA	NA	ppm
Amines	1	0	NA	NA	ppm
Carbon Monoxide	6	0	NA	NA	ppm
Formaldehyde	6	0	NA	NA	ppm
Hydrogen Sulfide	7	0	NA	NA	ppm
LEL	1	0	NA	NA	ppm
Nitrogen Oxides	8	0	NA	NA	ppm
Particulate Matter	6	0	NA	NA	mg/m3
Phenol	1	0	NA	NA	ppm
PM10	171	128	0.0826	2.100	mg/m3
Styrene	1	0	NA	NA	ppm
Sulfur Dioxide	7	3	1.42	4.000	ppm
VOC	272	8	0.3	1.000	mg/m3

# CTEH(RP Air Monitoring Contractor) AreaRae Map for perimeter



# Firewater Runoff activities

- **FOSC/SOSC instructed RP to construct fencing along ditch areas to eliminate access to these areas from the public**
- **Continuous air monitoring was established near the firewater at several locations including the elementary school and a public road**
- **Firewater was collected utilizing 5 vacuum trucks and the water was placed into frac tanks on site.**
- **On the 2<sup>nd</sup> day, EPA FOSC and TCEQ SOSC requested the RP to bring in foam to suppress remaining hotspots. This was accomplished on day 3.**
- **Soil was excavated from ditches after water was removed**
- **No runoff water migrated into Katy Lake downstream.**
- **Approximately 1.25 million gallons of water have been collected to date, due to major rain events, water is still being collected from the ditches**

# Photos of Response

**Magnablend Facility Fire shortly after fire started**



**Firetruck engulfed from burning mineral oil released from fire**



# Photos of Response

**Perimeter Air Monitoring Operations**



**Residual smoke migration after fire**



# Photos of Response

**USEPA water sampling firewater at south pond**



**Firewater migration off-site of facility**



# Photos of Response

**Railcars damaged from fire**



**Drums, totes after the fire**



# Photos of Response

**Tote cages and collapsed buildings after the fire**



**Resin sludge throughout facility after the fire**



# Photos of Response

**Vacuum Operations of firewater in ditches**



**Soil excavation along affected ditches**



# Media Issues

- **Media was present on site for 4 days and were directly behind the facility within 200 yards of the fire. OSCs requested that the fire chief move the media away from the area due to possible wind changes. The media was moved. OSCs also informed the fire chief that all response agencies should move Command Posts to the SE corner of the property to stay out of the plume. All agencies agreed.**
- **Some of the information that the USEPA and TCEQ Regional Offices put out within hours of the response was incorrect in reference to the TIER 2 chemicals on site. Anhydrous Ammonia was said to be at the facility but it was not present. This occurred due to multiple Tier 2 lists for all of Magnablend facilities in the immediate area. USEPA FOSC and TCEQ SOSC were able to answer specific questions on what was on site later in the response.**
- **Media wanted health answers immediately**
- **The City of Waxahachie and the County did not have a health official onsite until the 3<sup>rd</sup> day upon request of the OSCs**

# Things that worked

- NARAC and ASPECT responded well delivering quality data that worked for the responders
- **Unified Command was set-up early in the response and all agencies and the RP worked together well**
- IAP was initiated and the formal IAP process began the second day with three Ops Briefs per day. IAP was created for 24 hour operation periods.
- RP had ample contractors on site conducting containment , monitoring and removal activities from the beginning. Operational Reporting from the RP was acceptable.
- CTEH delivered air results to USEPA via SCRIBE with a summary page of locations monitored. Reporting via SCRIBE was slow but verbal updates were given every four hours or if action levels established were reached. Particulate readings exceeded one hour action levels in several immediate and downwind areas, but were not sustained for a 24 hour period to suggest the need for additional evacuations. CTEH air sampling results were delivered roughly four weeks after the response. USEPA START compared CTEH's Air Sampling Results to protective action criteria for TEEL s and AEGLs and found that no exceedances occurred throughout the duration of the incident from the data received. This sampling data was RP data and not USEPA/TCEQ data.
- Only one injury was reported from the smoke, and this individual was filming the plume on-top of a building across the highway during the initial fire. The individual had carbon monoxide poisoning but recovered. No local hospitals reported any immediate or acute health effects from citizens. No responders suffered any immediate or acute health affects from the fire.

# Things that were not in place early enough

- County and City did not have a health official on scene to talk with the media until the 3<sup>rd</sup> day upon request of the OSCs.
- Once a health official was on site, a hotline was created for the public for any health concerns
- Local health official was a volunteer to the city, a physician from Baylor Medical Hospital
- Once on site the health official handled all health related media questions

# Lessons Learned

- Pull in ATSDR if no local health official is present to answer media question dealing with public health and to assist the OSCs and Toxicologists in data interpretation for public display
- Communicate the Poison Center Hotline immediately to local officials to assist them in health concerns

# Current Status of Response

- **USEPA transferred all remaining RP monitoring activities to the TCEQ on day five of the incident due to the fact that the fire had been extinguished and that the immediate threat to public health was no longer present.**
- **TCEQ is managing all removal operations including firewater disposal, soil excavation, air monitoring, and site removal activities**
- **ATSDR has been put into place to assist any citizens with health concerns**
- **Local officials are handling any town hall meetings and addressing any health issues**
- **USEPA has shared all air monitoring data, water analytical data and CTEH air sampling data with TCEQ, ATSDR, and TDOH**

# Sector Corpus Christi



Captain of the Port Report  
Regional Response Team Meeting  
November 2011

# Significant Events

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- 42 pollution cases since June
  - 10 Letters of Warning issued
  - 08 Notices of Violation issued
  - 03 Civil Penalties
  - 07 Federal Projects
- North Padre Island Tarball Response
- Tank Barge EBL 2999 Discharge
- S. Central TX Oil & Gas Well Head Fire
- Recreational Boat Fire

# Tarball Response at Bob Hall Pier



- USCG, TGLO, Nueces Co. joint pollution response operation
- Two miles of public beach impacted
- Corpus Christi Area Oil Spill Control Association contracted
- 4 barrels of tar removed over 2 days



# Tank Barge EBL2999 Discharge

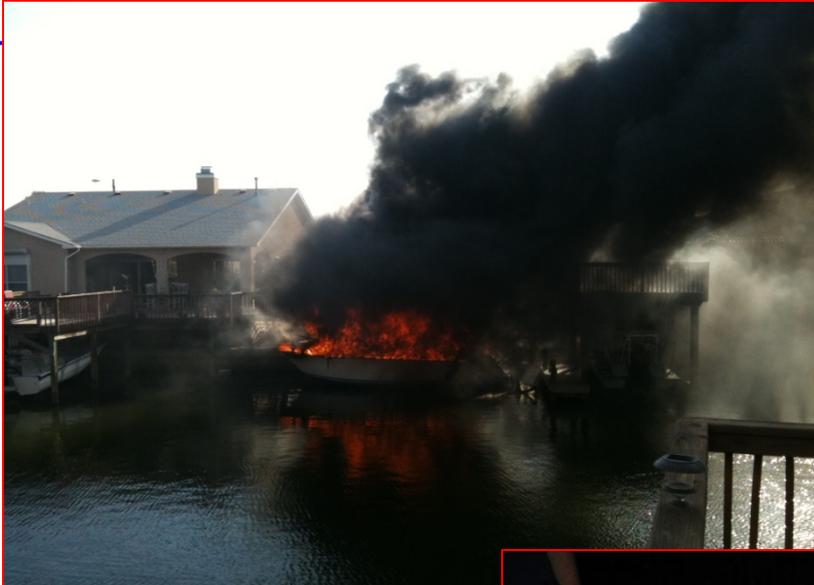
- A pinhole leak in a transfer hose caused a discharge of oil into the Corpus Christi Inner Harbor.
- 7 Violations
- Importance of Pollution Prevention Requirements



# S. Central Texas Oil & Gas Well Head Fire



# Recreational Boat Fire





Questions?

# Sector Houston-Galveston Incident Management Division

## IMD Cases:

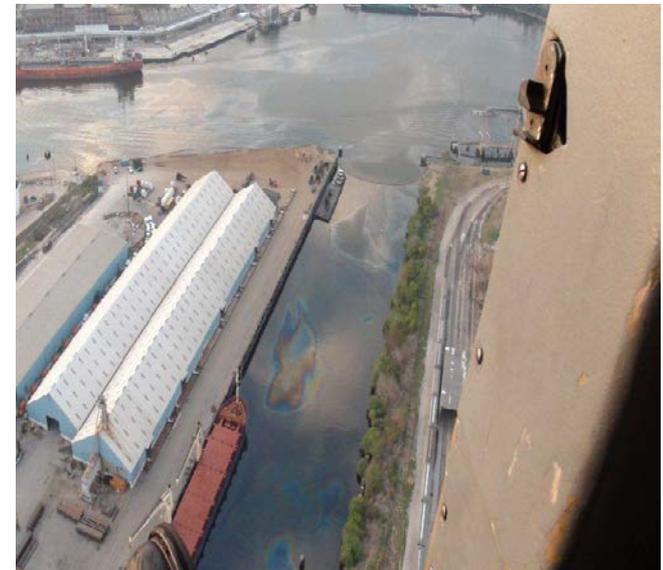
Notifications:	Incident Investigation:	Total NRC Reports: Jan – Oct 2011
234	86	320

## IMD Enforcement Actions Taken

LOW's/NOV's/Class 1 Civil Penalties:	Fines issued from : Jan – Oct 2011
86	\$67,250.00

## Federalized Projects

OSLTF Projects:	CERCLA Projects:
5 est. total \$137,263.68	1 total \$820.20



# Federal Project – Woodhouse Docks



## Response: 6 days

- Product: Heavy Oil
- Estimated Amount: 1,700 gallons
- FPN Ceiling: \$125,000

## Containment & Recovery:

- Boom + Snare + Passive Recovery
  - Tidal influence + Quick Response contained majority of oil substance at Woodhouse Dock & Lyondell facility across the Houston Ship-Channel
  - Additionally, removed oiled trash.

## Decision-Making:

- Unique Pier structure
  - 100+ concrete cells
- Surface Washing Agent
  - RRT approval granted
  - 6 vessel hulls cleaned
- Oiled Trash

## Investigation:

- Oil Samples did not match
- No Responsible Party identified

# Buffalo Barge 409 Oil Spill - Texas City

## RESPONSE

- 7500 ft containment boom deployed
- 2 Vac trucks
- 2 Marco skimmers
- Resources at risk: fish, crabs, shrimp and seabirds
- Snake Island – sensitive area protectively boomed.
- MSU Texas City, TGLO, TCEQ, Texas City Emergency Managers Sector personnel monitored clean up activities, vessel decon and conducted shore line assessments.
- Texas City Channel and Port reopened to vessel traffic morning of 20AUG.
- Texas City Dike reopened to public midmorning of 20AUG
- 15 Vessels were deconned and cleared for departure by 21AUG.
- 9 Berths were deconned and returned to service by 21AUG
- Assessment of impact zone along Texas City Dike continue.
- Total oil recovered to date:
  - 1470 gallons oily liquid
  - 1.3 tons oiled solid waste (sobents, snares, sorbent boom)

## TRANSITION

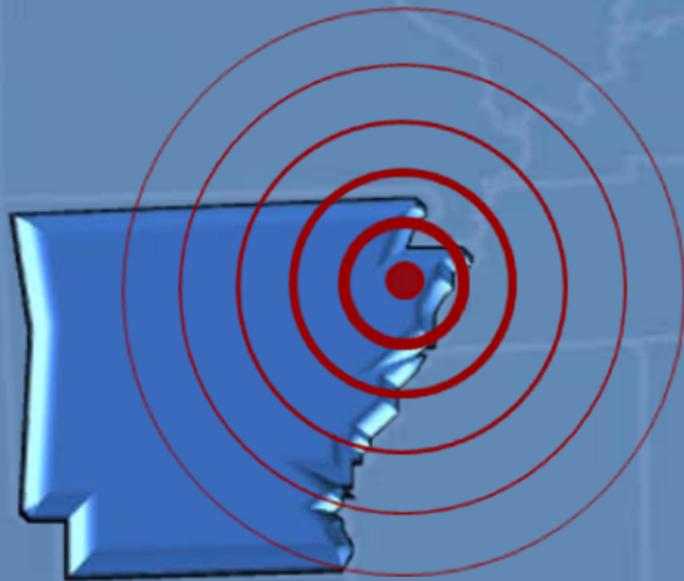
- Buffalo Marine Services Inc., designated as Responsible Party.
- Seamless transition from BP to Buffalo Marine



# National Level Exercise 2011

## New Madrid Seismic Zone

### After Action Review



November 2011



FEMA

# Observations

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FEMA

- **Communications**
- **Incident Management**
- **Mass Care**
- **Critical Resource Distribution**
- **Medical Surge**
- **Recovery**
- **RRCC**
- **Questions**

# Communications

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FEMA

- **Strengths**
  - **Satellite communications established with counties, state, and FEMA.**
- **Areas for Improvement**
  - **Capacity limitations**
  - **Still gaps in communications following a catastrophic event.**

# Incident Management



FEMA

- **Strengths**
  - Utilized Federal and regional earthquake plans
  - Identified resource shortfalls
- **Areas for Improvement**
  - Focus more on the “push” strategy
  - No clear understanding of UACG
  - Lack of damage assessment strategy
  - Lack of COP
  - Need catalogue of NGO resources

# Mass Care

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FEMA

- **Strengths**
  - **Strong partnerships among NGOs**
- **Areas for Improvement**
  - **Not enough available resources.**

# Critical Resource Distribution



FEMA

- **Strengths**
  - Interagency task force to create air/water bridge
  - NGO distribution plans
- **Areas for Improvement**
  - Existing plans and coordination mechanisms did not support the distribution of life saving/life sustaining resources.

# Medical Surge

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FEMA

- **Areas for Improvement**
  - **SNS lacks types and quantities of catastrophic event.**
  - **Identify patient movement capacity.**

# Recovery

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FEMA

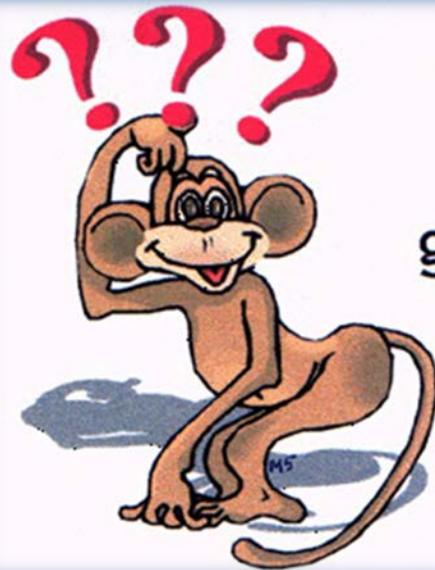
- **Strengths**
  - **Private sector engagement.**
- **Areas for Improvement**
  - **Supply chain origin, distribution, and transportation**
  - **Transitional sheltering “one size fits all”**
  - **Extensive debris**

# R6 RRCC



FEMA

- **Strengths**
  - **Real world and exercise play**
- **Areas for Improvement**
  - **ENS**
  - **Conduct RRCC exercises**
  - **Role of RRCC, UACG, and NRCC**
  - **Synch PSMA with planning effort**
  - **Resource shortfall & allocation**
  - **Use of social media**
  - **COP**
  - **Many unresolved issues**



Questions  
are  
guaranteed in  
life;  
Answers  
aren't.

## QUESTIONS ANSWERED

<b>SIMPLE</b>	<b>50 cents</b>
<b>GUESSES</b>	<b>\$1.00</b>
<b>INTELLIGENT</b>	<b>\$2.00</b>
<b>HONEST</b>	<b>\$5.00</b>

**DUMB LOOKS  
ARE STILL FREE 😊**



FEMA

‘The only thing necessary for the triumph of evil (ignorance, stupidity, malfeasance) is for good men to do nothing.’

-Edmund Burke-

# PPD-8

## Presidential Policy Directive - 8

- National Preparedness Goal & Plan - Brief Narrative Overview of NRG & NPP on Nov. 24<sup>th</sup>
- Viable Nationwide Coordinating Structure for All Core Competencies, Overall Better Integration
- Enable Operations Plans by Answering Coordination Questions
- Succinct, Focus on Essential Language, Clear, KISS
- No Time Line, Constant Campaign, Living Document

- Use Risk to Drive the Discussion – Conscious Discussions About Acceptable Risk
- Develop a National Training and Education System
- Foundational Items in Core Document Bringing Frameworks Together
- Framework Expectations (What Items Would You Like to See the Frameworks Address?)
- Linkages Between Mission Areas, Between Core Capabilities (What do You See?)

Donald “Doc” Lumpkins

- Feedback on the Plan Will Be Tracked

[PPD8-Engagement@fema.gov](mailto:PPD8-Engagement@fema.gov) or

[PPD8-Engagement@dhs.gov](mailto:PPD8-Engagement@dhs.gov)

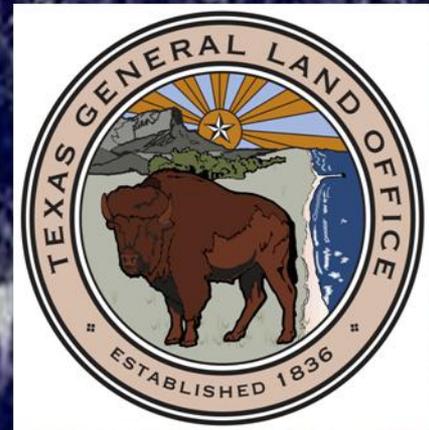
"Our land, compared with what it was, is like a skeleton of a body wasted by disease."

-Plato-

# Texas Drought Update - Refineries, Chemical Plants & Cascading Effects

- Most Serious Drought of Record Since '53
- May Have Begun in '08
- While a Break May Occur Sometime This April, NWS Indicates Drought May Extend Into 2013
- FEMA is Acting as a Collection Point for Intel in Regard to the Drought and Roles and Responsibilities in Response to it
- TDEM Planning & Exercising Drought Scenario

- Ag Users Will be Some of the First to Lose Water Rights Based Upon Source Acre Feet Available (LCRA/Rice Crop, 30%, Groundwater Sources, Planting Date Decisions)
- Municipal Issues & Alternative Sources & Plans
- Large Refinery/Chemical Plant Water Use (Levels, Loss of Use, Termination on Demand)
- Cascading Effects (Last Summer Energy Demand Blackout/Brownouts; Insulator Interference; Flare Emissions Uptick; Plant Shutdown Cost; Economic Effects on Fuel Pricing; Planning Considerations Based Upon Discussions & Warnings)



# NATURAL DISASTER OPERATIONAL PLANNING WORKGROUP

Established in 2009



# Natural Disaster Operational Planning Workgroup (NDOW)

- Workgroup members have worked a wide variety of simple through complex incidents providing a wealth of field and command level experience covering a diverse set of disciplines to workgroup activities
- Workgroup Agencies:
  - USCG District 8 Response Advisory Team
  - USEPA Region 6 Federal On-Scene Coordinators
  - TCEQ / TGLO State On-Scene Coordinators
  - USEPA & TCEQ Water Quality Specialists
  - Texas Parks and Wildlife
- Agency Leads:
  - TCEQ (SOSC Kunze)
  - TGLO (Mr. Grimes)
  - USCG (LT Denham)
  - USEPA (FOOSC Brescia)

# NDOW OBJECTIVES

- Conduct Multi-Agency Pre-Landfall Response Planning: Co-location and coordination of agencies pre-landfall at pre-selected locations (COOP locations for USCG Sector's, TXDEM Pre-deployment Areas)
- Create Standard Operating Procedures (SOP) and forms (Field Evaluation & Recovery Procedures, ICS forms for both State and Feds) for field personnel
- Standardize one Centralized Data Management system with agreed upon Data Quality Objectives (DQOs) that are scalable to fit each agency's needs per disaster
- Formalize and deliver NDOW product training including Data Management system training and software delivery to agencies and to field personnel
- Create one Master Equipment Pick List for all agencies
- Accumulate more pre-determined staging areas and Waste Collection Pads

\*The bullets above are the major areas which needed improvement per the Hurricane Ike Hotwash and current,

# Conduct Multi-Agency Pre-landfall Response Coordination and Planning

- NDOW meets on a quarterly basis at the TCEQ Austin HQ and exchanges response plan information pertaining to each agency
- Each agency has agreed to provide some level of support to each other in the pre-landfall period
- USEPA will supply FOSCs with Data Management Support to predetermined USCG and TCEQ/TGLO COOP/Staging locations
- Several COOP locations have been identified per response plans
- Pre-landfall operation organizational charts have been discussed and agreed upon by the NDOW group. Funding will determine level of effort provided
- Each year response plans change, so the NDOW group keeps each agency aware of changes made and modifications to planning activities

# Standard Operating Procedures

The workgroup has created seven standardized operational procedures for State and Federal agencies operating under ESF-10/ESF-3 to follow while responding to a natural disaster.

- Rapid Needs Assessment (RNA)
- Orphan Container Hazard Evaluation
- Orphan Container Recovery
- Oil Spill Assessment
- Oil Spill Removal
- Response Manager Administration (TCEQ)
- Infrastructure Evaluation ESF-3  
(Drinking/Waste Water Plant Assessment)



# Rapid Needs Assessment SOP

Purpose: To evaluate the impacted areas to determine the magnitude of the event, the geographic boundaries of the event, and the immediate threats to public health and the environment.

- Multiagency RNA teams (Designated personnel per geographic locations, State & Federal Teams, integrated into TDEM pre-deployed Task Forces located in Waco, San Antonio, Dallas, etc..)
- Objectives (Size up event, determine emergencies to address immediately, locate areas for Incident Command Posts)
- Ground/Helicopter assessments (Team structure, process, air ops plan)
- ASPECT fixed wing aircraft hazard assessments (Federal Risk Plan(FRP), Risk Management Plan (RMP), active spill assessment and target identification)
- Information exchange between the agencies



# Orphan Container Hazard Evaluation SOP

Purpose: To identify orphaned containers greater than or equal to 5 gallons in size displaced by a natural disaster so that they may be recovered in a safe and efficient manner.

- Organization of the hazard evaluation operations, chain of command and responsibilities
- Team composition and individual position specific duties
- Procedures for conducting Hazard Evaluation (Grid surveys, Health and Safety issues, what counts as an item, characterization of items, creating targets, nomenclature, etc.)
- Specific forms to use: Hazard Evaluation Field Data Sheet and Facility / Vessel / Spill Field Data Sheet
- ICS forms to complete (214B Unit Debrief Log)



# Orphan Container Recovery SOP

Purpose: To efficiently and safely recover orphaned containers with minimal impact to the environment. Containers that are in their obvious place of origin and have not been displaced during the disaster should not be recovered unless they are leaking as a result of the disaster.

- Organization of the response, chain of command and responsibilities
- Team composition and individual job specific duties
- Procedures on how to recover targets  
(Health and Safety, how to close out items, etc.)
- Forms to complete to close out targets, database sync
- ICS forms to complete (214B Unit Debrief Log)



# Oil Spill Assessment SOP

Purpose: To identify and document oil spills discharged during a natural disaster in the coastal and inland zones in accordance with the National Contingency Plan and Oil Pollution Act of 1990 (OPA90).

- Organization of the response, chain of command and responsibilities
- Team composition and individual job specific duties
- Procedures for conducting Hazard Evaluation (Grid surveys, Health and Safety issues, what counts as an item, characterization of items, creating targets, nomenclature, etc.)
- Specific forms to use: Hazard Evaluation Field Data Sheet and Facility / Vessel / Spill Field Data Sheet
- ICS forms to complete (214B Unit Debrief Log)



# Oil Spill Removal SOP

Purpose: To efficiently document, contain, recover and mitigate oil discharges with minimal impact to the environment. Oil discharges pre-existing the disaster cannot be removed unless they are a result of the disaster.

- Organization of the response, chain of command and responsibilities
- Team composition and individual job specific duties
- Procedures for conducting removals (RP led vs. Fund led, criteria for closure)
- Specific forms to use: Facility / Vessel / Spill Field Data Sheet
- ICS forms to complete (214B Unit Debrief Log)



# One Centralized Database System

## RESPONSE MANAGER

- Response Manager has been adopted by the NDOW agencies to be utilized as the centralized data management system.
- Data Quality Objectives have been created and agreed upon by all agencies to utilize during a natural disaster event to fit all operational and reporting requirements
- Standardized field data sheets have been created to utilize in the field during the assessment/closure process
- Response Manager has been delivered to approximately 200 field responders with the NDOW
- Since inception, Response Manager has been utilized by several of the agencies for disaster response and for typical response activities

# Response Manager & Data Quality Objectives

The list below contains general Data Quality Objectives (DQOs) that should be used while documenting assessment and recovery operations. The list is followed by guidance on closure of containers.

- **Recovery Required (Open):** Site has been assessed but still needs to be recovered
- **Special Operations (Open):** The item requires recovery for disposal, and a recovery team with special equipment or elevated PPE needs to be dispatched.
- **Leave in Place (Open):** The item couldn't be recovered, and additional action is required, or the PRP/owner will recover the item.
- **Access Denied (Open):** The item was observed, but physical access to the container was blocked.
- **Refer to Other Agency (Open):** Item/clean up is to be handled by an agency other than the EPA but needs to be tracked for closure.
- **Item Recovered (Closed):** The item has been recovered for disposal, and no further action is required
- **Item Not Found (Closed):** The item has previously been recovered or is not found, and no further action is required.
- **Refer to Other Agency (Closed):** An agency other than the EPA is to handle the item/clean up, typically associated with Federal Lands that EPA does not have jurisdiction to perform clean-up.
- **Leave in Place (Closed):** Only use at the direction of a Group Supervisor and document the reason.
- **Access Denied (Closed):** The item was observed, but the PRP/owner prohibited access to the property and/or the item belongs to the property owner and they don't want it removed.
- **Refer to Other Agency (Closed):** Item/clean up is to be handled by an agency other than the EPA and has been addressed and/or EPA no longer needs to track for closure.

# Response Manager-Data Management

- Software and training has been delivered to TCEQ, TGLO, TXPW, EPA, USCG Sector and MSU personnel
- Standardized field data forms have been provided to all agencies and are available in hardcopy and in electronic format for laptops or PDA's
- Guidance on how to complete the forms is located on the forms and in the SOPs.



# Infrastructure Evaluation SOP

Purpose: To identify public water supply (drinking water) and/or wastewater systems impacted by an emergency event or natural disaster. The purpose of the evaluation will be to determine operational status, provide technical assistance and ensure public health protection

- Organization of the response, chain of command and responsibilities
- Team composition and individual job specific duties
- Procedures on how to evaluate systems(Phone and Field evaluations, Tables to use for classification, etc.)
- Forms to complete to verify status of systems, database sync
- ICS forms to complete (214B Unit Debrief Log)

# Standardized Field Data Sheets

## Hazard Evaluation Field Data Sheet

### HAZARD EVALUATION FIELD DATA SHEET

A: Item ID (Location Name): \_\_\_\_\_

B: Affiliation: \_\_\_\_\_ C: Team Group Name: \_\_\_\_\_ D: Team # \_\_\_\_\_ E: Date/Time: \_\_\_\_\_

F: Physical Address/Cross Street: \_\_\_\_\_

G: City: \_\_\_\_\_ H: State: \_\_\_\_\_ I: Zip \_\_\_\_\_ J: County \_\_\_\_\_

K: Latitude: \_\_\_\_\_ L: Longitude \_\_\_\_\_ M: Field Grid # \_\_\_\_\_

N: Item Number/Type: \_\_\_\_\_ Drum \_\_\_\_\_ Cylinder \_\_\_\_\_ Tote \_\_\_\_\_ Tank \_\_\_\_\_ Misc. Container \_\_\_\_\_ Carboy  
(Add number to those that apply)

Q: Item Status:  
(check box that applies)

<input type="checkbox"/> Assessment Required (Open)	<input type="checkbox"/> Recovery Required (Open)	<input type="checkbox"/> Special Operations (Open)	))
<input type="checkbox"/> Leave in Place (Open)	<input type="checkbox"/> Access Denied (Open)	<input type="checkbox"/> Refer to Other Agency (Open)	
<input type="checkbox"/> Item Recovered (Closed)	<input type="checkbox"/> Item Not Found (Closed)	<input type="checkbox"/> Refer to Other Agency (Closed)	
<input type="checkbox"/> Leave in Place (Closed)	<input type="checkbox"/> Access Denied (Closed)		

P: Item Condition: Damaged, No Spill    Damaged, Spill/Release    No Damage    Cannot Discern  
(Circle one)

R: Item Priority: Emergency/Immediate Response    Non-Emergency/Immediate Response  
(Circle One)

T: Item Over Pack    No    Yes    If yes, Poly    Steel    Other  
(Circle One)

O: Item Contents Level    Full    ¾    ½    ¼    Residual    Unknown  
(Circle one)

S: Monitoring Hazard Present    Yes    No  
(Circle One)

U: Item Comments/Additional Information  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A: Combine Affiliation, Team Group Name, Team Number, Item Found Date, and Item ID (Example: EPA-HE1-100518-001)

B: Affiliation: ASP-ASPECT, CST-Civil Support Team, EPA-Environmental Protection Agency, NOAA-National Oceanic Atmospheric Administration, NRC-National Response Center, SRT-Superfund Technical Assessment and Response Team, TOQ-Texas Commission on Environmental Quality, GLO-Texas General Land Office, UCG-United States Coast Guard, TPW-Texas Parks and Wildlife Department

C: Group Name: DR-Drinking Water Assessment Team, HE-Hazard Evaluation Team, CR-Orphan Container Recovery Team, RN-Rapid Needs Assessment Team

D: Use this to designate Team # - from ICS 204 Form.

E: The date/time the item was found in YY/MM/DD and military time format

F: Address and Street name or just street name if no address can be found. Leave blank if no street is available but must have GPS if left blank

G: City if applicable

H: State

I: Zip if known

J: County if known

K: Latitude in decimal degrees with minimum 5 decimal places WGS 84 projection.

L: Longitude in decimal degrees with minimum 5 decimal places WGS 84 projection

M: From the USGS 1:24000 Quad cut into quarters. EPA has a published national grid system. (Leave blank if unsure)

N: The number of items of the type at the location.

O: **Assessment Required (Open)** = The Location or Item was reported but a team has to be dispatched; **Recovery Required (Open)** = Site has been evaluated but still needs to be recovered; **Special Operations (Open)** = The item requires recovery for disposal, and a recovery team with special equipment or elevated PPE needs to be dispatched. Recon teams are to mark the specialized requirements in the ITEM COMMENTS field. **Leave in Place (Open)** = The item couldn't be recovered, and additional action is required, or the PRP/owner will recover the item. Teams are instructed to document the additional action and/or PRP data in the Item Comments field. **Access Denied (Open)** = The item was observed, but physical access to the container was blocked.

**Refer to Other Agency (Open)** = Item/clean up is to be handled by an agency other than the EPA but needs to be tracked for closure.

**Item Recovered (Closed)** = The item has been recovered for disposal, and no further action is required; **Item Not Found (Closed)** = The item has previously been recovered or is not found, and no further action is required. **Refer to Other Agency (Closed)** = Item/clean up is to be handled by an agency other than the EPA and has been addressed and/or EPA no longer needs to track for closure. ; **Leave in Place (Closed)** = Only use at the direction of an OSC and document the reason within the comments section; **Access Denied (Closed)** = The item was observed, but the PRP/owner prohibited access to the property and/or the item belongs to the property owner and they don't want it removed.

**P: Damaged, No Spill** = If damage is observed but no spill or release is present; **Damaged, Spill/Release** = If damage is observed and evidence of a spill or release exists; **No Damage** = If no damage is observed; **Cannot Discern** = Can't tell if damage or spill is evident.

**Q: Emergency/Immediate Response** = Use if the drum is leaking/releasing and an imminent threat to Human or Environment; **Non-Emergency/Immediate Response** = Use for all other containers

**R: Circle Y or N** if an overpack was used on the item during removal. If an overpack was used, type of material the overpack was made out of needs to be circled.

**S: Estimate the level of the material within the container.**

**T: If you get reading greater than background circle yes and put reading in Item Comments. If no elevated readings are noted circle no.**

**U: Item Comments/Additional Information** = Include any additional information in the space below including special equipment needed to access/recover or any other special circumstances, elevated monitoring data collected, access issues, or unique conditions associated with item.

Entered into RM by: \_\_\_\_\_ Date/Time: \_\_\_\_\_

# Standardized Field Data Sheets

## Facility / Vessel / Spill Field Data Sheet

### FACILITY / VESSEL / SPILL FIELD DATA SHEET

A. Facility ID \_\_\_\_\_  
 B. Affiliation \_\_\_\_\_ C. Team Group Name \_\_\_\_\_  
 D. Team ID # \_\_\_\_\_  
 E. Date / Time \_\_\_\_\_  
 F. Latitude \_\_\_\_\_ N  
 G. Longitude \_\_\_\_\_ W  
 H. Field Grid # \_\_\_\_\_

I. Facility / Vessel Name \_\_\_\_\_  
 J. Address \_\_\_\_\_  
 K. City \_\_\_\_\_ L. State \_\_\_\_\_ M. Zip \_\_\_\_\_ N. County \_\_\_\_\_

O. NRC Number \_\_\_\_\_  
 P. Facility or Vessel ID Number \_\_\_\_\_  
 Q. Facility / Vessel POC Name and Contact Info. \_\_\_\_\_  
 R. Type of Facility / Vessel Spill Source \_\_\_\_\_  
 S. Water Way affected \_\_\_\_\_  
 T. Facility / Vessel / Spill Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

U. Assessment Date \_\_\_\_\_ V. Assessment Team \_\_\_\_\_  
 W. Assessment Team Leader Name \_\_\_\_\_ X. Assessment type – Air Ground Phone  
 Y. Response Lead \_\_\_\_\_ Z. Facility Operations \_\_\_\_\_

AA. Facility / spill Status \_\_\_\_\_  
 BB. Facility / Spill Condition \_\_\_\_\_  
 CC. Facility / Spill Priority \_\_\_\_\_  
 DD. Spill / Release Size \_\_\_\_\_ EE. Spill Product Type \_\_\_\_\_  
 FF. Estimated Spill Amount Recovered to date \_\_\_\_\_ Units \_\_\_\_\_  
 GG. OSRO Information \_\_\_\_\_  
 HH. Assessment Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Facility / Vessel / Spill Field Data Sheet Values	
A	EPA Facility ID EPA Facility ID Associated with spill or facility, if applicable
B	Affiliation ASP - Aspect, CST - Civil Support Team, EPA - Environmental Protection Agency, NOA - NOAA, NRC - National Response Center, SRT - START, TCOQ - TCEQ, GLO - TX General Land Office, UCG - USCG, TPW - Texas Parks and Wildlife Department
C	Group Name DR-Drinking Water Assessment Team, HE-Hazard Evaluation Team, AM - Air Monitoring Team, WW - Wastewater Assessment Team CR-Orphan Container Recovery Team, RN-Rapid Needs Assessment Team, ER- Emergency Response Team
D	Team ID Number Use this from ICS Chart with group or Team Number
E	Date / Time The Date and time the Facility / Vessel / Spill was found in YY/MM/DD and military time format.
F	Latitude The Latitude in decimal degrees with minimum 5 decimal places in WGS 84 projection
G	Longitude The Longitude in decimal degrees with minimum 5 decimal places in WGS 84 projection
H	Field Grid # Field Grid from the USGS 1:24000 Quad cut into quarters, EPA has published national grid system
I	Facility / Vessel Name Facility or Vessel Name if known
J	Address Address of the facility, street number and name if known (MUST HAVE Address OR Lat/Long)
K	City City where facility, vessel, spill is located (if known)
L	State State where facility, vessel, spill is located
M	Zip Zip code where facility, vessel, spill is located (if known)
N	County County where facility, vessel, spill is located (if known)
O	NRC Number National Response Center Incident Number - From NRC Report
P	Facility or Vessel ID Number The 6-9 digit USCG MISLE ID Number OR Vessel Number
Q	Facility/Vessel POC Name / Contact Info. Facility or Vessel Point of Contact name and contact info (phone, e-mail, address if available)
R	Type of Facility / Vessel Spill Source Choose From: Facility, Individual Vessel, Marina, Platform, Pipeline, Unknown
S	Water Way Affected Name of Water way affected by spill, if known. (Example: Gulf of Mexico, Galveston Bay, Sabine River)
T	Facility / Vessel / Spill Comments Comments for this facility or spill - include access issues, unique conditions associated with spill
U	Assessment Date The date the assessment occurred
V	Assessment Tea ICS Team Name - (example as above)
W	Assessment Team Leader Name Name of Team Lead / Person performing assessment (who to contact in case of questions about assessment)
X	Assessment Type Circle One - Air, Ground, or Phone assessment
Y	Response Lead Who is leading/funding the response/cleanup (RP, STATE, NPFC, ESF-10)?
Z	Facility Operations Choose One: Fully Available, Partially Available, Not Available, N/A
AA	Facility / Spill Status Choose One: Facility Fully Functional (Closed), Spill/ Sheen Identified Clean Up Not Yet Initiated (Open), No pollution threat (Closed), Access Denied (Open), Assessment Required (Open), Recon Required (Open), Clean Up in Progress (Open), Clean Up completed (Closed), Clean Up Completed Refer To State (Closed), Refer to Other Agency (Open), Refer to Other Agency (Closed)
BB	Facility / Spill Condition Choose One: Damaged No Spill / Release, Damaged Spill / Release, No Damage, Operational, Spill, Sheen, Fire
CC	Facility / Spill Priority Choose One or Other - Emergency/Immediate Response, Non-Emergency Response
DD	Spill / Release Size Choose One: Inland Minor (0-1000 gallons), Inland Medium (1001-10,000 gallons), Inland Major (>10,000 gallons), Coastal Minor (0-10,000 gallons), Coastal Medium (10,000-100,000 gallons), Coastal Major (>100,000 gallons)
FF	Est Spill Amount Recovered to Date Amount of spill estimated recovered at that time if known, MAKE SURE TO PUT UNITS
GG	OSRO Information Name, contact information of Oil Spill Response Organization
HH	Assessment Comments Comments related to Facility / Spill Assessment





# Staging Areas (ICPs and Waste Collection Pads)

Purpose: Identification of areas to utilize for Incident Command Posts and Waste Collection Pads.

To Date in Texas:

- Brownsville, TX: 10
- Corpus Christi, TX: 12
- Galveston, TX: 5
- Houston, TX: 5
- Port Arthur, TX: 7

\*This operation is facilitated through the USEPA Logistics Team with TCEQ Regional Leads.



## EPA OSC Website



### EPA OSC Web Sites - recent updates

Name	City	State	Updated
<a href="#">Crown Laundry</a>	Indianapolis	IN	4/14/2011
<a href="#">West Cherry Street Mercury Spill</a>	Rising Sun	MD	4/14/2011
<a href="#">GMC-Central Foundry Division</a>	Massena	NY	4/14/2011
<a href="#">Easton Community Oil Field D</a>	Easton	KY	4/13/2011
<a href="#">Kerr-McGee Chemical (Colubus) aka Tronox</a>	Columbus	MS	4/13/2011

[More Websites](#)

## EPA On Scene Coordinator (OSC) WebSite

Welcome to the EPA OSC WebSite. This site is intended to be a resource for EPA OSCs to access, track and share information with OSCs throughout the country. [\(more..\)](#)

### News

#### 14<sup>th</sup> Annual OSC Readiness Training Program

The 14th Annual OSC Readiness Training Program was held in Orlando, Florida from January 31 - February 4, 2011.

[Click Here to view presentation materials](#)

#### Deepwater Horizon Gulf Response

[View EPA Data Using Google Earth](#)

#### Enbridge Oil Spill

[View EPA's Response to the Enbridge Oil Spill](#)

#### Health & Safety

[Emergency Responder Health and Safety Manual](#)

### OSC Task Force

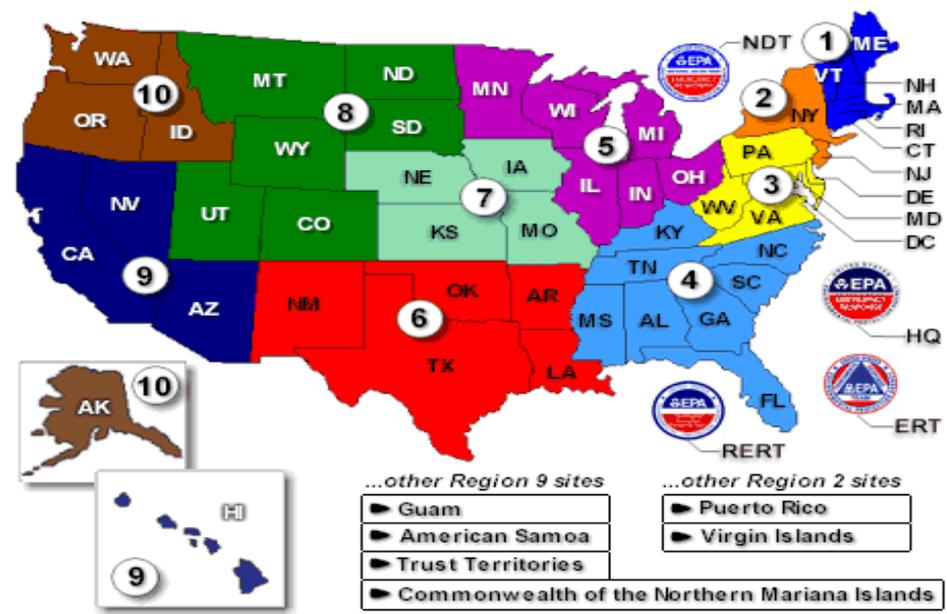
The OSC Readiness Task Force was originally created in 1982. The Task Force comprises 2 OSCs from each Region (serving 3-year terms), plus Removal Manager and Headquarters representatives.

The [OSC Task Force](#) has put together a Toolbox Guide to assist EPA On-Scene Coordinators (OSCs) and Federal Classification Series (FCS) 1102 Contracting Officers (COs) by outlining the general procedures for the acquisition of goods and services required to respond to certain environmental releases, threats and/or discharges.

### Blue Book

[A collection of field related resources](#)

Select a Region to see a list of Web Sites or [List All Web Sites](#)



EPA OSC Web Sites - recent updates			
Name	City	State	Updated
<a href="#">Crown Laundry</a>	Indianapolis	IN	4/14/2011
<a href="#">West Cherry Street Mercury Spill</a>	Rising Sun	MD	4/14/2011
<a href="#">GMC-Central Foundry Division</a>	Massena	NY	4/14/2011
<a href="#">Easton Community Oil Field D</a>	Easton	KY	4/13/2011
<a href="#">Kerr-McGee Chemical (Colubus) aka Tronox</a>	Columbus	MS	4/13/2011
<a href="#">More Websites</a>			

<a href="#">Region 1</a>	<a href="#">Region 4</a>	<a href="#">Region 7</a>	<a href="#">Region 10</a>	<a href="#">RERT</a>
<a href="#">Region 2</a>	<a href="#">Region 5</a>	<a href="#">Region 8</a>	<a href="#">ERT</a>	<a href="#">NDT</a>
<a href="#">Region 3</a>	<a href="#">Region 6</a>	<a href="#">Region 9</a>	<a href="#">HQ</a>	

From opening EPA OSC page select, Web Sites in upper left hand tool bar  
Web Sites page will open (current view) then select Region 6



**Region VI - Central South - AR, LA, NM, OK, TX**

Page Size    
 676 websites

Filter For:       [Clear Filter](#)

<< Prev [First Page] [Last Page] Next >>

Name ~ click column to sort~	City	State	Contact	Updated	Field Activity	Response Type	Response Authority	Incident Category
<a href="#">(FPN E10603) Bison Resources, Inc.- Percy Holland</a>	<a href="#">Many</a>	LA	Mark Hayes	04/14/2011	No	-	OPA	Removal Action
<a href="#">(FPN E10602) Trident Production, LLC- Green/Waites</a>	<a href="#">Ringold</a>	LA	Mark Hayes	04/13/2011	No	-	OPA	Removal Action
<a href="#">Region 6 Regional Response Team Webpage</a>	<a href="#">Dallas</a>	TX	Steve Mason	04/12/2011	No	-	-	-
<a href="#">Henley's Sealant</a>	<a href="#">Oklahoma City</a>	OK	Althea Foster/Mike McAteer	04/11/2011	Yes	-	CERCLA	Removal Action
<a href="#">Gulfc0 Marine Maintenance</a>	<a href="#">Freeport</a>	TX	Gary Miller	04/06/2011	Yes	Time-Critical	CERCLA	Removal Action
<a href="#">Natural Disaster Operational Workgroup (USEPA/USCG/TCEQ/TGLO)</a>	<a href="#">Dallas</a>	TX	Nicolas Brescia	04/06/2011	Yes	-	-	-
<a href="#">Battery Reclamation, Inc.</a>	<a href="#">Pecos</a>	TX	William Rhotenberry	04/05/2011	Yes	Time-Critical	CERCLA	Removal Action
<a href="#">Picher High School Chemical Lab</a>	<a href="#">Picher</a>	OK	Steve Mason	04/04/2011	Yes	Emergency	CERCLA	Removal Assessment
<a href="#">Henryetta Iron and Metal</a>	<a href="#">Henryetta</a>	OK	Mark Hayes	03/31/2011	Yes	PRP Oversight	CERCLA	Removal Action
<a href="#">Sunoco Logistics -- Seminole OK</a>	<a href="#">Cromwell</a>	OK	Adam Adams	03/31/2011	Yes	Emergency	OPA	-
<a href="#">San Jacinto River Waste Pits TCRA</a>	<a href="#">Channelview</a>	TX	Valmichael Leos	03/31/2011	Yes	PRP Oversight	CERCLA	Removal Action
<a href="#">Gold Metal Recyclers - 2011</a>	<a href="#">Dallas</a>	TX	Adam Adams	03/30/2011	Yes	-	-	-
<a href="#">Scrub-A-Dubb Barrel Co.</a>	<a href="#">Lubbock</a>	TX	Greg Fife	03/30/2011	Yes	Emergency	CERCLA	-

Select Natural Disaster Operational Workgroup, left hand column



### Natural Disaster Operational Workgroup (USEPA/USCG/TCEQ/TGLO) Dallas, TX - EPA Region VI



Site Contact:  
**Nicolas Brescia**  
USEPA Operation Team Lead  
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1445 Ross Avenue  
Dallas, TX 75202  
[epaosc.org/naturaldisasteroperationalworkgroup](http://epaosc.org/naturaldisasteroperationalworkgroup)  
Latitude: 32.7846050  
Longitude: -96.8028970

[KML](#) | [RSS](#) | [site map](#) | [area map](#) | [bookmark](#)

This site is designed for the Natural Disaster Operational Workgroup and its agency personnel to access essential SOP's, field data sheets and SOP attachments. The multi-agency workgroup serves as a unified operational planning function for upcoming events.

Currently, 7 SOPs have been finalized by the workgroup. The SOPs are the following: Rapid Needs Assessment, Orphan Container Hazard Evaluation, Orphan Container Recovery, Oil Spill Assessment, Oil Spill Removal, Infrastructure Evaluation and Response Manager Administration. Four Field Data Sheets have been finalized and approved for field use and they include the following: Orphan Container Hazard Evaluation Field Data Sheet, Facility/Vessel/Spill Field Data Sheet, Drinking Water Infrastructure Evaluation Field Data Sheet, and the Wastewater Infrastructure Evaluation Field Data Sheet. Response Manager software and training has been administered to approximately 180 field/supervisor personnel(Texas Regional State Offices:Austin, Corpus Christi, Houston, Beaumont) from the following agencies: TCEQ, TGLO, and the USCG. The Response Manager Data System will now be utilized as the primary means of managing data for all workgroup agencies in the next disaster. The calendar below is used to place events that involve the Natural Disaster Operational Workgroup agencies. As products become finalized in final draft form they will be made available for public viewing. NDOW active working documents are classified as private and one must have an epaosc.org login ID to access them. Once work products become finalized by all agencies, they will become classified as public.

#### Natural Disaster Operational Workgroup Calendar of Meetings, Training and Exercises

<a href="#">Bulletins</a>
<a href="#">April 5-7th, 2011: Natural Disaster Operational Workgroup Training-Port Art...</a> <a href="#">List All...</a>
<a href="#">Images</a>
<a href="#">Documents</a>
<a href="#">Rapid Needs Assessment SOP...</a> <a href="#">Orphan Container Hazard Evalua...</a> <a href="#">Orphan Container Recovery...</a> <a href="#">Oil Spill Assessment SOP...</a> <a href="#">List All...</a>
<a href="#">POLREPs</a>
None for this site.
<a href="#">Contacts</a>
USEPA Team Lead <a href="mailto:brescia.nicolas@epa.gov">brescia.nicolas@epa.gov</a> TCEQ Strike Team Ld <a href="mailto:jewelli@tceq.state.tx.us">jewelli@tceq.state.tx.us</a>

Select Documents, right hand column

## Natural Disaster Operational Workgroup (USEPA/USCG/TCEQ/TGLO)

 Folder: [All Documents](#) [46]

Click Column Name to Sort. (46 Documents)

 Page Size **ALL**

Categories	File Name	Description	Category	Uploaded	Size	Download
<a href="#">All Documents</a>	<a href="#">Rapid NeedsAssessment SOP 05-12-10.pdf</a>	Rapid Needs Assessment SOP	SOPs	5/12/2010	25 KB	<a href="#">Download</a>
<a href="#">Agency Asset List</a>						
<a href="#">Agendas &amp; Minutes</a>						
<a href="#">DW/WWTP Data Sheets</a>	<a href="#">Orphan Container Hazard Evaluation SOP 05-12-10.pdf</a>	Orphan Container Hazard Evaluation SOP	SOPs	5/12/2010	50 KB	<a href="#">Download</a>
<a href="#">Fact Sheet</a>						
<a href="#">Field Data Sheets</a>	<a href="#">Orphan Container Recovery SOP 05-12-10.pdf</a>	Orphan Container Recovery	SOPs	5/12/2010	43 KB	<a href="#">Download</a>
<a href="#">Houston Training</a>						
<a href="#">ICS Form Examples</a>	<a href="#">Oil Spill Assessment SOP 05-12-10.pdf</a>	Oil Spill Assessment SOP	SOPs	5/12/2010	45 KB	<a href="#">Download</a>
<a href="#">ICS Forms</a>	<a href="#">Oil Spill Removal SOP 05-12-10.pdf</a>	Oil Spill Removal SOP	SOPs	5/12/2010	31 KB	<a href="#">Download</a>
<a href="#">Map Examples</a>						
<a href="#">Map Request Form</a>	<a href="#">Infrastructure Evaluation SOP070210Revision 4_DI_11-23-10.pdf</a>	Water Infrastructure Assessment SOP	SOPs	11/24/2010	73 KB	<a href="#">Download</a>
<a href="#">Photo Placard Form</a>						
<a href="#">Presentations</a>	<a href="#">FINAL Hazard Evaluation field datasheet_FINAL_AB 2.pdf</a>	Orphan Container Field Data Sheet	Field Data Sheets	4/1/2011	21 KB	<a href="#">Download</a>
<a href="#">SOPs</a>						
<a href="#">TCEQ RM Procedures</a>	<a href="#">C_FACILITY SPILL Date Sheet Field Form_FINAL_AB.pdf</a>	Facility Spill Field Data Sheet 3.30.2011	Field Data Sheets	3/31/2011	163 KB	<a href="#">Download</a>
<a href="#">Training Powerpoints</a>						
<a href="#">WCP Sampling Plan</a>	<a href="#">DW Eval Datasheet_Rev 01.pdf</a>	Drinking Water Evaluation Datasheet	DW/WWTP Data Sheets	9/16/2010	60 KB	<a href="#">Download</a>
	<a href="#">DW Op Status Codes_DI_11-18-10.pdf</a>	Drinking Water Operational Status Codes 11.19.10	DW/WWTP Data Sheets	11/19/2010	16 KB	<a href="#">Download</a>
	<a href="#">WW Eval Datasheet_rev 01.docx</a>	WW Evaluation Datasheet	DW/WWTP Data Sheets	9/16/2010	16 KB	<a href="#">Download</a>
	<a href="#">WW Op Status Codes_DI_11-18-10.pdf</a>	Wastewater Operational Status Codes 11.19.10	DW/WWTP Data Sheets	11/19/2010	16 KB	<a href="#">Download</a>
	<a href="#">214B ICS FORM 2011.doc</a>	214B ICS Form	ICS Forms	3/24/2011	99 KB	<a href="#">Download</a>
	<a href="#">Ike 204. RECOVERY. 09.26.08.doc</a>	ICS 204 Form Example 1	ICS Form Examples	10/8/2009	58 KB	<a href="#">Download</a>
	<a href="#">iKE 204 ER Recovery Ground Recovery Group.doc</a>	ICS 204 Form Example 2	ICS Form Examples	10/8/2009	44 KB	<a href="#">Download</a>
	<a href="#">epa ics 220 air ops request form.doc</a>	ICS 220 Air Operations Request Form	ICS Forms	4/23/2009	66 KB	<a href="#">Download</a>

This page contains all Natural Disaster Operational Workgroup SOPs, forms, training presentations, agendas and meeting minutes

# NDOW Accomplishments

- Delivered 5 (3-day) training events for field personnel across the Texas Gulf Coast Training included: SOPs, Data Sheets, 214B, Response Manager, Tabletop Exercise
  - (2) Corpus Christi, Texas (TCEQ Corpus, TGLO Corpus, TXPW Corpus, USCG Sector Corpus) (2010-2011)
  - (1) Harlingen, Texas (TCEQ Harlingen, TGLO Harlingen) (2011)
  - (1) Houston, Texas (TCEQ Houston, USCG Sector Galveston) (2010)
  - (1) Port Arthur, Texas (TCEQ Beaumont, TGLO Port Arthur, USCG Sector Port Arthur) (2011)
  - (3) Austin, Texas (TGLO, TCEQ) Response Manager
  - (1) Mobile, AL (USCG Strike Team) Response Manager
  - Approximately 250 field personnel & managers have been trained to date

# NDOW Accomplishments Cont.

- Participated in (1) Full Scale Hurricane Field Exercise in Corpus Christi under TCEQ providing support for utilization of NDOW products and Response Manager implementation (2011)
- Integrated NDOW products into the TGLO Toolkit
- Created an online Response Manager Training Course( Available in 2012)
- Provided NDOW Products and 1 round of training to LDEQ/LDHH/LDNR/USCG for potential use during Mississippi Floods (30 personnel trained)
- Provided NDOW products to USEPA Region 1 & 2 for use during the Hurricane Irene Response (Utilized Field Data Sheets and Response Manager)
- Provided Response Manager Support to TXPW (2011)

# NDOW Future Products

- SOPs
  - Waste Collection Pad Operations
  - Debris Management Evaluation and Assessment Procedures
  - Affected Wildlife Documentation & Reporting ProceduresSite Orientation SOPs per tasking
- Marsh Ops Plan Template to be utilized for future Hurricanes (Plans taken from Hurricane Gustav and IKE)
- Integration of SCRIBE data with Response Manager
- Implementation of online Response Manager Course
- Infrastructure Evaluation database location corrections
- TXPW Data Form for affected wildlife
- Four rounds of NDOW training & 1 Full Field Exercise Support (TCEQ/TGLO/USCG)
  - Corpus Christi, Harlingen, Houston, Port Arthur

# Natural Disaster Operational Workgroup

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