



# EF-10 Workshop

*Hazardous Materials & Oil*



## Facilitated Discussion

- Major Bay Area
- Earthquake

# Exercise Agenda

- 1:10–1:15 p.m. Ground Rules
- 1:15–4:15 p.m. Workshop Facilitated Exercise
- 4:15–4:30 p.m. Closing Comments



# Workshop Purpose

Improve state agency emergency response and recovery coordination during an activation of Emergency Function (EF) 10 – Hazardous Materials and Oil under the State Emergency Plan (SEP).



# Workshop Objectives

- Introduce EF-10 annex components and review with stakeholders.
- Review and refine the components of a common operational picture of EF-10 with primary and supporting agencies.
- Discuss how EF-10 would coordinate management priorities and effectively communicate across agencies.





# Exercise Structure



Emergency Function – 10  
*Hazardous Materials & Oil*

# Exercise Structure

- Scenario-based
- Facilitated discussion
- Each module has a scenario update followed by a facilitated discussion with the group
- Focuses on the EF-10 annex
- Uses existing agency plans, policies, and procedures
- Facilitates understanding of concept of operations and roles and responsibilities



# Assumptions and Artificialities

- There is no hidden agenda, and there are no trick questions.
- The scenario is plausible. Events occur as they are presented.
- All participants receive information at the same time.
- Participants will use real-world data and information support sources.

***Fight the problems, not the scenario.***



# Exercise Rules

- There is no right or wrong answer; agree to disagree.
- Do not limit yourself; decisions today do not set precedents.
- Maintain an acronym-free environment.
- Participants should not expend more resources than would realistically be available to them either through use of city assets or through outside agencies.
- **Maintain a no-fault, low-threat environment.**





# Initial Incident



# Notification

**Date:** Tuesday, October 30

**Time:** 1:00 p.m.

- The National Earthquake Information Center (NEIC) and the University of California (UC) Berkeley Seismic Station report that a 6.8 magnitude earthquake on the Hayward Fault occurred at 06:30 hours; epicenter in Oakland at 37°50'39.23" N, 122° 13'39.10" W.



# Questions

1. How is your agency notified?
2. Do you have emergency response authorities or do you come in during a later phase?





# Discussion





# Activation and Communications



# Activation and Communications

- Contra Costa, Santa Clara, San Francisco, Solano, San Mateo, and Marin have declared local emergencies and requested a gubernatorial declaration.
- These counties and Alameda County report that all fire/hazmat resources are responding to life threatening/public safety emergencies.
- Land-line phone service/DSL and cable are non-operational for major impact areas and cell phone service is severely compromised.



# Activation and Communications

- Emergency calls are only allowed in areas impacted and still operational. Cell phone service is operational but severely overloaded.
- Contact is possible via text messaging and Twitter in many areas where cell service is non-operable.



# Questions

1. Due to communications limitations, how do you reach staff in the affected areas?
2. Do you have access to alternate communications equipment for staff being sent into the affected areas? If so, what type of alternate communications equipment?
3. Can you share communications channels with other agencies?
4. Why are the answers to these questions important to EF-10 agencies?





# Discussion





# Transportation



# Transportation Issues

- California Department of Transportation (CalTrans) reports that all Bay Area bridges, including the Bay, Carquinez, Dumbarton, Golden Gate, Richmond-San Rafael, and San Mateo bridges, have been closed to all traffic.
- Emergency crews are en route to begin structural inspections.
- CalTrans may open some bridges for emergency traffic.
- Bay Area Rapid Transit (BART) reports that their system has been shut down.



# Transportation Issues

- Damage to elevated sections of BART track/stations.
- Muni and Alameda-Contra Costa (AC) Transit are not operating due to damage to surface streets and debris blocking routes.
- All Bay Area airports are closed.
  - Runway damage is reported at SFO, OAK, and SJ airports.
  - All inbound flights to those airports are being rerouted to alternate airports.



# Questions

1. Because of access limitations, working from the joint field office (JFO) or designated staging areas may be the best option. Does your agency's emergency plan identify such activities?
2. Are you set up to share resources with other agencies?
3. Debris will be a major issue for opening lanes of transportation. Are you involved in debris assessment or removal?





# Discussion





# Incident Impacts



# Incident Impacts

- Casualties are estimated at 750 with 80,000 displaced due to home damage.
- Numerous small fires and a mass exodus of citizens fleeing the affected areas are reported.
- Richmond reports emergency shutdown of refinery due to power loss and loss of steam.
- Smoke, partially burned hydrocarbons, and sulfur compounds are being released.
- Sirens and the Community Alert Network (CAN) have been activated.



# Incident Impacts

- Rodeo reports tank fire at fuel farm.
- Smoke is impacting the communities of Crockett and Rodeo. Residents are advised to shelter in place.
- Tesoro Golden Eagle Refinery reports that the refinery is shutting down due to power failure, which sent large quantities of hydrocarbon to the flares.
- The smoke drift is straight up with some drifting over North Concord.
- Multiple pipelines have ruptured, releasing an unknown volume of oil.



# Incident Impacts

- Three of six wastewater treatment plants between Berkeley and Hayward are out of service and may have releases. The plants estimate that over 50 percent of their 1.3 million customers will have no water service.
- The wastewater treatment plant for Berkeley and Oakland is shut down. Damage to water delivery and treatment systems is affecting over 50 percent of their 2.4 million customers.
- Water supply pipelines that traverse the Hayward Fault and cross the San Francisco Bay are damaged, as are distribution pipelines at the margins of the Bay.



# Incident Impacts

- There is a pipeline break at the northeast end of Bethany Reservoir near Christensen Road.
  - More than 100 barrels of sour crude have been released.
- The release has been stopped.
- Water (Bethany Reservoir/California Aqueduct) may be affected.
- An RP assessment/clean-up crew is en route.



# Incident Impacts

- Lawrence Livermore National Laboratory (LLNL) reports release of tritiated hydrogen from Building 331 (the Tritium Facility).
- Stack monitors recorded total activity emitted (HT+HTO plus any other gaseous tritium radioactive compounds) was 450,000 curies.
- Release is not ongoing.
- LLNL's response team is conducting a preliminary investigation.



# Incident Impacts

- There is an ongoing ammonia release at Dow.
  - Concentration and quantity are unknown.
  - The release is suspected to be due to probable pipeline and/or storage tank damage as a result of the earthquake aftershock.
- A community alert has been issued; residents are warned to shelter in place within a two-mile radius of the facility.
- The initial failure at Dow resulted in a release of about 40,000 lbs of ammonia.



# Incident Impacts

- The Dow Emergency Response (ER) team is being assembled.
- Suter Delta Medical Center and Kaiser Medical report patients complaining of respiratory issues due to chemical exposure.
- California Conservation Corps (CCC) would like assistance with community air monitoring and plume modeling.



# Questions

1. Describe your situation status and intelligence gathering capability.
2. Are your offices accessible? How do affected offices impact your ability to respond?
3. What response resources (personnel, equipment, etc.) do you have?
4. What additional response resources are needed?
5. Are you aware of any releases at this point? Who reports to you for releases?
6. Have you been requested to provide any assistance to state or local agencies?





# Discussion





# Hotwash

