



*City and County of San Francisco Emergency Response Plan*

# ***ESF #10: Part A: Land***

## ***Oil & Hazardous Materials Response Annex***







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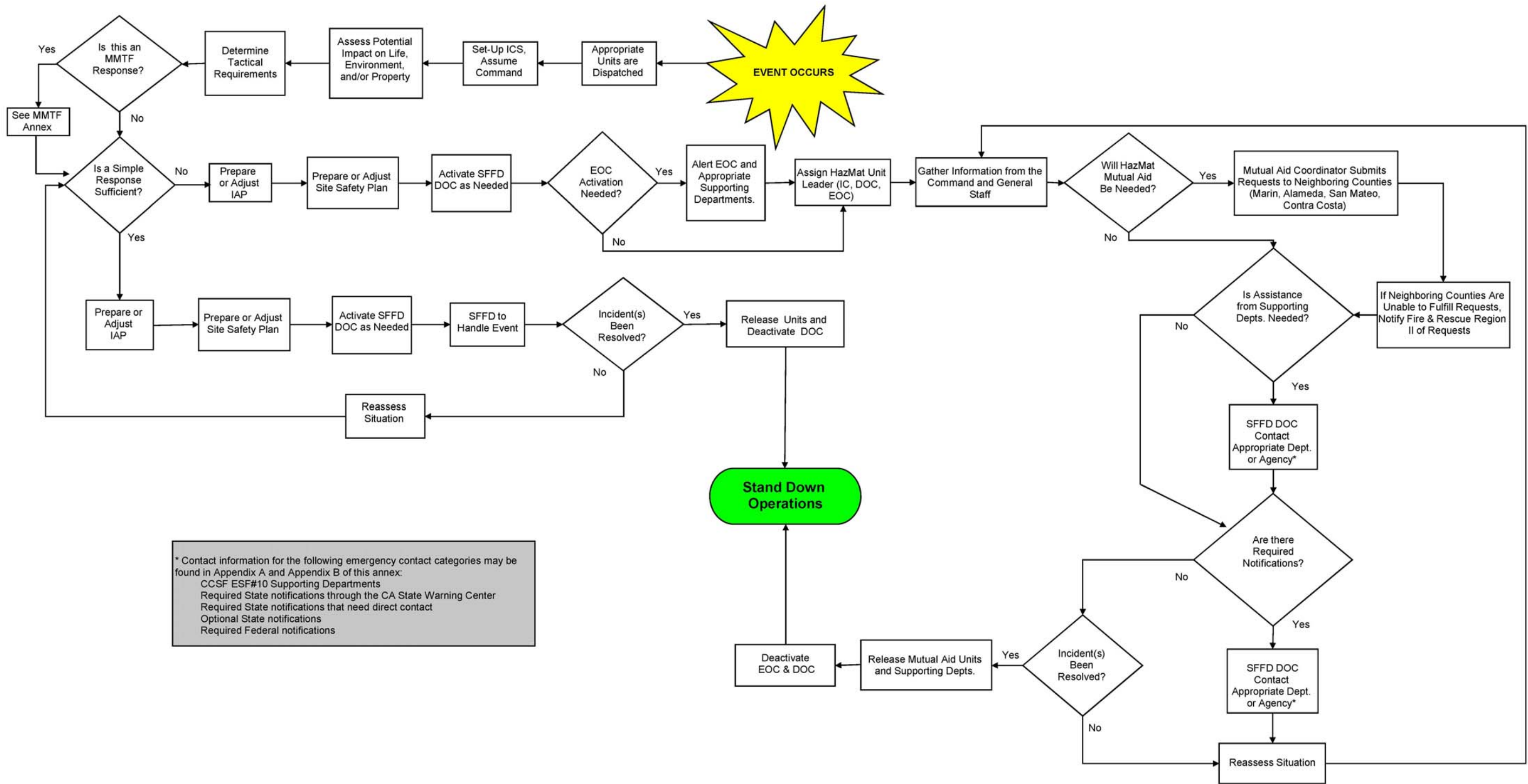
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ESF #10: Oil and Hazardous Materials Response, Part A: Land Response  
 Process Flow Chart  
 Unplanned Event



\* Contact information for the following emergency contact categories may be found in Appendix A and Appendix B of this annex:  
 CCSF ESF#10 Supporting Departments  
 Required State notifications through the CA State Warning Center  
 Required State notifications that need direct contact  
 Optional State notifications  
 Required Federal notifications

Figure A: Unplanned Event Process Flow Chart





## Section I: Introduction

### 1.1 Coordinating and Supporting Departments

Coordinating Department	SFFD
Supporting Department(s)	DEM, DPH, DPT, DPW, ME, MTA, SFPD, SFSD <sup>1</sup>

### 1.2 Overview of Department Responsibilities

Department	Responsibilities
<b>SFFD</b>	<ul style="list-style-type: none"> <li>• Coordinate hazardous materials response operations</li> <li>• Maintain contact with the Incident Commander and/or DOC</li> <li>• Maintain contact with supporting departments</li> <li>• Assist with appropriate State and Federal notifications</li> </ul>
<b>DEM</b> <b>DPH</b> <b>DPT</b> <b>DPW</b> <b>ME</b> <b>MTA</b> <b>SFPD</b> <b>SFSD</b>	<ul style="list-style-type: none"> <li>• Provide direct support for SFFD field operations</li> <li>• Maintain communication with ESF #10 representatives; provide regular situation status updates</li> <li>• Staff agency DOC and/or EOC as required</li> </ul>

### 1.3 Purpose

Emergency Support Function (ESF) #10: Oil and Hazardous Materials Response provides for a coordinated response to imminent or actual oil and hazardous materials incidents within the City and County of San Francisco (CCSF) that pose a threat to life, environment, and property.

### 1.4 Scope

ESF #10 supports CCSF emergency operations through coordinating the response, cleanup and recovery activities associated with hazardous spills or releases of hazardous substances. ESF #10 Part A: Land Response addresses the response actions associated with oil and hazardous materials events that occur on the land. For information regarding oil and hazardous materials marine response, refer to ESF #10 Part B: Marine Response.

<sup>1</sup> Other departments may support ESF #10 operations according to event requirements.

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## Section 2: Concept of Operations

### 2.1 General Concepts

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The *ESF #10: Oil and Hazardous Materials Response Annex Part A<sup>2</sup>* will be utilized by the San Francisco Fire Department (SFFD) and supporting departments during a land-based oil and hazardous materials event within CCSF. Procedures pertaining to this function do not pre-empt or nullify existing SFFD functions as they operate within the Incident Command System (ICS).

This Concept of Operations will outline the following elements of the Oil and Hazardous Materials Response, Land Response function:

- Hazardous Materials
- Oil and Hazardous Materials Release Response Coordination
- Hazardous Materials Team
- Information Flow
- Organization and Structure
- Notification and Activation Procedures
- Designated Response Actions
- Deactivation Procedures

#### 2.1.1 Hazardous Materials

Hazardous materials addressed by ESF #10 may include chemical, biological, and radiological substances whether accidentally or intentionally released. This includes any such substances considered to be weapons of mass destruction (WMD).

ESF #10 may also be activated in response to potential or actual releases of other substances that may pose a threat to public and environmental safety. Appropriate ESF #10 response activities to such incidents include, but are not limited to, household hazardous waste collection, monitoring of debris disposal, water quality monitoring and protection, air quality sampling and monitoring, and protection of natural resources.

#### 2.1.2 Hazardous Materials Response Coordination

The San Francisco Fire Department is the primary agency responsible for response to and mitigation of land-based hazardous materials spills and releases occurring within CCSF. During a spill or release that necessitates a land-based ESF #10 activation, SFFD will assume the role of Incident Commander or will be designated as the CCSF Emergency Operations Center (EOC) Fire and Rescue Branch Coordinator or Land-Based Oil and Hazardous Material Response Unit Leader. SFFD will be responsible for monitoring and assessing the status of the

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<sup>2</sup> All references to ESF #10 from this point forward refer to ESF #10 Part A: Land Response



spill or release, organizing the containment, cleanup, and disposal of oil or hazardous substances, and coordinating the acquisition of resources.

Supporting departments are crucial to the success of land-based ESF #10 activities by providing capabilities, expertise, or materials that SFFD may not possess or may not have in sufficient quantities. According to the needs of the event, SFFD will work closely with the San Francisco Police Department (SFPD), Department of Public Works (DPW), Department of Public Health (DPH), Department of Parking and Traffic (DPT), and Municipal Transportation Authority (MTA) to coordinate the following:

- Crowd control and traffic control
- Evacuation
- Crime scene investigation
- Procurement of large quantities of dirt and sand to be used for building containment dikes or as absorbent
- Identification and categorization of unknown substances
- Coordination with local hospitals regarding signs, symptoms and treatment.
- Identification of viable evacuation routes
- Provision of transportation for large scale evacuations

### ***Responsible Party***

When the responsible party of the spilled material is known, that party is responsible for all costs incurred for proper cleanup and disposal. The recovered material, including any contaminated absorbents and disposable clothing are to be left with the responsible party for proper disposal.

When the need for cleanup and disposal has been determined and either 1) the responsible party is known but is unavailable or 2) the responsible party is not known, a representative from DPH will secure the cleanup and disposal contractor.

### **2.1.3 Hazardous Materials Team**

The SFFD Hazardous Materials (HazMat) Team will be deployed to the site of the spill or release to conduct assessments, collect contamination samples, use chemicals or other materials to contain or impede the spread of the release or mitigate its effects, and conduct other activities as deemed necessary. During any event where a hazardous material is known to be involved, the HazMat Team will immediately be called to respond.

The SFFD Hazardous Materials Team consists of the following:

- SFFD Station 36 HazMat Unit
- Battalion 2 HazMat Group Supervisor
- One Rescue Squad
- One Medic Unit
- One Technical Specialist from the Department of Public Health, Environmental Health



## **Functions**

The HazMat Team will provide technical expertise, equipment, and assistance at the incident and perform duties as directed by the Incident Commander. Duties Include:

1. Initial identification and/or confirmation of hazardous substance
2. Perform hazard assessment (visualize likely behavior without intervention; determine potential harm)
3. Determine response objectives
4. Don protective clothing (Level A, B, C, or D according to the situation)
5. Establish resource requirements
6. Perform site management, under direction of the Incident Commander
7. Control release
8. Decontaminate personnel and equipment exiting Hot Zone
9. Terminate incident

### **2.1.4 Information Flow**

ESF #10 facilitates communication among multiple response coordination levels during land-based oil and hazardous materials release response. The following provides an overview of the various ESF #10 coordination levels that maintain communication in accordance with event requirements. Figure 2-1 below depicts the relationship between ESF #10 coordination levels.

- **Field Operations**
  - Conduct necessary activities to assess, monitor, contain, remove or dispose of hazardous materials according to direction from the Incident Commander
  - Submit frequent situation status reports to the SFFD Departmental Operations Center (DOC)
- **Incident Command Post / Unified Command (ICP / UC)**
  - Provide coordination to field operations
  - Maintain communications with SFFD DOC
- **SFFD DOC**
  - Maintain constant communication with Incident Commander regarding the status of field operations
  - Receive requests for resources from the field; fulfill requests internally or coordinate requests with EOC or mutual aid as necessary
  - Coordinate with the appropriate agency to transport hazardous materials by road, rail, pipelines, air, and/or waterways



- **EOC Fire and Rescue Branch: Oil and Hazardous Materials Response Unit Leader**
  - Coordinate overall activities of oil and hazardous materials response efforts
  - Gather information from field and/or DOC representatives on a continual basis
  - Submit frequent situation status reports to the Fire and Rescue Branch Coordinator
  - Coordinate with Regional, State, or Federal entities as necessary
- **Operations Support Section Chief and Fire and Rescue Branch Coordinator**
  - Exchange updated oil and hazardous materials information to ensure EOC situational awareness
  - Exchange information about support operations, needed resources, and field situation status
- **Supporting ESF Departments**
  - Support EOC, DOC, and/or field operations as requested
  - Maintain communication with appropriate departmental representatives by providing frequent situation status updates.

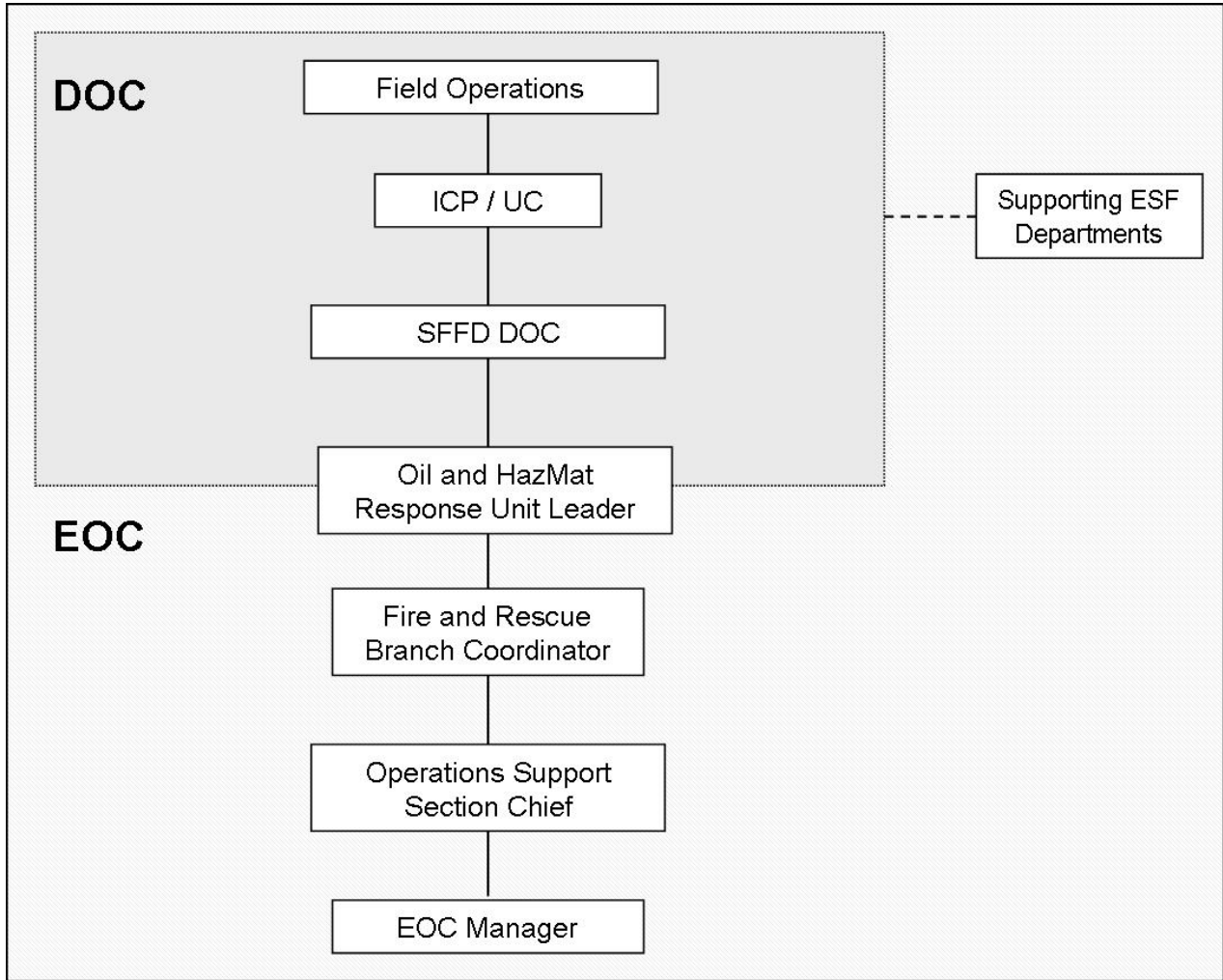


Figure 2-1: ESF #10 Information Flow Chart





## 2.2 Organization

### 2.2.1 Organization and Structure

The oil and hazardous materials response function encompasses support from several CCSF departments. Figure 2-2 depicts the relationship between the EOC Fire and Rescue Branch, the SFFD DOC, field response operations, and involved CCSF departments.

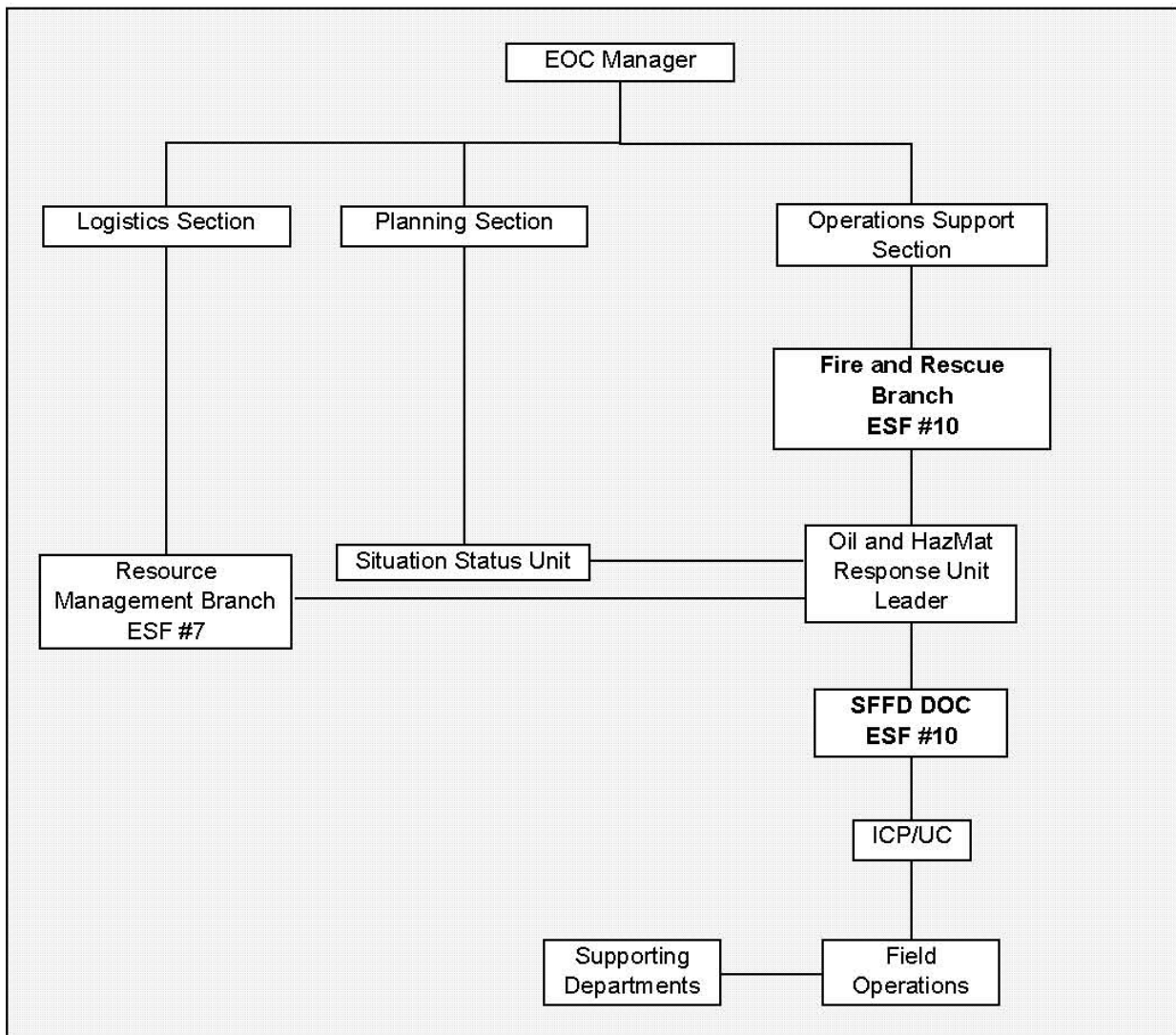


Figure 2-2: ESF #10 Organization



## 2.2.2 Roles and Responsibilities

The following table details the overall roles and responsibilities of each oil and hazardous materials response entity that may be involved with an ESF #10 activation. Entities required to support ESF #10 operations will vary on a case-by-case basis, and will be determined according to the needs of the event.

Participant	Function
<b>SFFD</b>	<ul style="list-style-type: none"> <li>• Coordinate hazardous materials response operations</li> <li>• Maintain contact with the Incident Commander and/or DOC</li> <li>• Maintain contact with supporting departments</li> <li>• Assist with appropriate State and Federal notifications</li> </ul>
<b>DEM</b>	<ul style="list-style-type: none"> <li>• Provide EOC support during a large-scale CCSF hazardous materials event</li> </ul>
<b>DPH</b>	<ul style="list-style-type: none"> <li>• Assess, identify, and categorize unknown substances</li> <li>• Coordinate with local hospitals regarding signs, symptoms and treatment of hazardous substances</li> <li>• Make necessary notifications to required agencies</li> <li>• Declare the scene safe when hazard is mitigated</li> <li>• Coordinate with responsible party, hazardous waste contractor, or public agency to conduct clean-up operations</li> <li>• Provide clearance to reoccupy property after clean-up or mitigation</li> <li>• Coordinate with the Environmental Protection Agency (EPA) as necessary</li> </ul>
<b>DPT</b>	<ul style="list-style-type: none"> <li>• Identify viable evacuation routes and provide a means of transportation for large scale evacuations</li> </ul>
<b>DPW</b>	<ul style="list-style-type: none"> <li>• Provide large quantities of dirt and sand to be used for building containment dikes or as an absorbent</li> <li>• Provide the equipment and operators needed to transport and place containment materials</li> </ul>
<b>ME</b>	<ul style="list-style-type: none"> <li>• Provide for management of any fatalities that may result from a hazardous materials related event.</li> </ul>
<b>MTA</b>	<ul style="list-style-type: none"> <li>• Identify viable evacuation routes and provide a means of transportation for large scale evacuations</li> </ul>
<b>SFPD</b>	<ul style="list-style-type: none"> <li>• Provide scene security, crowd and traffic control, evacuation assistance, and crime scene investigation</li> <li>• Provide force protection for on scene resources</li> </ul>



Participant	Function
<b>SFSD</b>	<ul style="list-style-type: none"> <li>• Assist with event site security / force protection of event</li> <li>• Provide traffic and crowd control</li> <li>• Facilitate lead coordination efforts for events occurring at the jail or at City Hall</li> </ul>
<b>Field Incident Commander</b>	<ul style="list-style-type: none"> <li>• Determine the most appropriate actions to manage the situation at hand</li> <li>• Establish Scene Control Zones</li> <li>• Perform rescue operations if prudent (<i>or if it can be performed safely</i>)</li> <li>• Submit frequent situation status reports to the SFFD DOC</li> </ul>
<b>HazMat Team</b>	<ul style="list-style-type: none"> <li>• Conduct necessary activities to assess, monitor, contain, remove or dispose of hazardous materials according to direction from the Incident Commander</li> <li>• Perform rescue operations if prudent (<i>or if it can be performed safely</i>)</li> </ul>
<b>US EPA</b>	<ul style="list-style-type: none"> <li>• Assist state and local government in the response to environmental disasters, hazardous materials releases, and inland oil spills that threaten human health and/or the environment when an emergency requires additional resources and expertise</li> </ul>
<b>DFG, OSPR / USCG</b>	<ul style="list-style-type: none"> <li>• Coordinate hazardous materials response operations for events occurring in state waters</li> </ul>
<b>Mutual Aid Providers</b>	<ul style="list-style-type: none"> <li>• Provide resource and/or staffing support to ESF #10 operations during events that exceed CCSF personnel or equipment capabilities.</li> </ul>
<b>Oil and Hazardous Materials Unit Leader<sup>3</sup></b>	<ul style="list-style-type: none"> <li>• Provide EOC-level operational support for the event</li> <li>• Maintain communication with the SFFD DOC and outside supporting agencies providing assistance</li> <li>• Provide frequent situation status updates to EOC Fire and Rescue Branch Coordinator</li> </ul>

**Table 2-1: Oil and Hazardous Materials Response Participants and Functions**

<sup>3</sup> EOC Fire and Rescue Branch Position





## 2.3 Notification and Activation

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### 2.3.1 Notification

In the event of an impending or actual oil and hazardous materials event impacting CCSF, SFFD in coordination with the San Francisco Department of Emergency Management (DEM) will determine the activation needs of ESF #10. Notification will then be issued to all relevant supporting ESF #10 departments, and to any additional departments or agencies as required. Notification will be distributed via the most appropriate communications equipment for the event requirements, and will detail event information, reporting instructions, and any relevant coordination information. Refer to *Appendix A* and *Appendix B* of this document for a complete listing of notification requirements and contact information.

### 2.3.2 Activation

ESF #10 may be activated by the DEM Duty Officer, SFFD, or EOC Manager when a hazardous spill or release is anticipated or has occurred. The level of activation will be determined according to the requirements of the event. ESF #10 may activate during the following situations:

- During any spill or release that exceeds the capacity of normal SFFD operations
- During regional spills or releases that impact CCSF
- In the event that a spill or release necessitates evacuation
- During any spill or release that results in casualties
- The magnitude of a spill or release requires a mutual aid request
- Response and recovery operations will involve multiple city departments
- The characteristic hazards or magnitude of the release require regional, state or federal notifications to be made
- Response and/or recovery efforts are expected to last an extended period of time

#### **Scalable Activation**

ESF #10 operations will increase or decrease based on the type and nature of the emergency and the magnitude of the event. The type and level of activation is generally based on an event's resource or staffing requirements and the impact on the community. Table 2-2 below illustrates a scalable emergency response activation according to event type.



Emergency Situation	Example	Coordinating Department	Activation Type
Unplanned Event (Simple)	Notified of an actual spill or release, involves routine assistance from supporting departments.	SFFD	<ul style="list-style-type: none"> <li>Field Operations</li> <li>DOC</li> </ul>
Unplanned Event (Complex)	Notified of large-scale spill or release, requires assistance from multiple departments/ESFs, EOC activation threatens safety of CCSF people/property	SFFD	<ul style="list-style-type: none"> <li>Field Operations</li> <li>DOC</li> <li>EOC (if activated)</li> </ul>

**Table 2-2: Scalable Oil and Hazardous Materials Response Activation**

### 2.3.3 Response Actions

#### **Step 1: Secure Incident Site**

To ensure the safety and well being of life and property during a hazardous materials event, SFFD will perform the following operations:

- Deploy units to incident site
- Set up ICS structure in field
- Conduct initial incident assessment and develop Incident Action Plan (IAP)
  - Determine potential impact on population and/or environment
  - Determine tactical requirements
- Prepare site safety plan

#### **Step 2: Activate DOC; Alert EOC (as Necessary)**

Activation of the DOC and/or the EOC involves, but is not limited to, the following:

- If activated, send departmental representatives to EOC
  - Assign Hazardous Materials Response Unit Leader responsibilities to the most appropriate personnel (situation dependent)
- Determine HazMat mutual aid needs
  - Mutual Aid Coordinator submits requests to neighboring counties (Marin, Alameda, San Mateo, Contra Costa)
  - If neighboring Counties are unable to fulfill requests, notify Fire & Rescue Region II Mutual Aid Coordinator of requests
- Notify and request assistance from supporting departments
- Make appropriate Federal and State notifications



### **Step 3: Gather Information**

Information is continuously collected from SFFD and from the following groups to provide current status updates on hazardous materials operations:

- Response personnel in the field
  - Confirm affected areas through reports from dispatched emergency units and other support personnel
- Other responding departments
- Public and elected officials (via phone calls)
- NGOs, non-profit organizations, private sector (transportation and port companies, airports)
- Media (via broadcast, web information, blogs, print)
- State and Federal agencies, as appropriate (Department of Traffic [DOT], the Federal Emergency Management Agency [FEMA], etc.)

### **Step 4: Analyze Information and Coordinate Response**

- Conduct an assessment of the situation based on current information
- Revise IAP and site safety plan as necessary
- Coordinate with the following agencies as needed:
  - DPH – Signs and symptoms of exposure; appropriate treatment
  - DPT, MTA & SFPD – Evacuation methods and routes
  - DPT & SFPD – Traffic control and travel routes for responding units
  - DPW – Sand, dirt and/or booms for spill containment
  - SFPD – Establish and maintain perimeter exclusion zone

### **Step 5: Obtain Resources, Release of Public Information**

- Request resources through the DOC, EOC, and supporting departments, to deploy to the field during event
- Disseminate emergency information and guidance to the public, private, and government organizations
- Initial public information includes, but not be limited to, the following:
  - Damage assessment and estimated/anticipated duration
  - Actions SFFD is taking
  - Actions businesses, industries, and residents should take
  - A summary of the event
  - Overall steps to be taken by the government and citizens to return to normal operation after the event



**Step 6: *Continue to Monitor, Track, and Inform***

- Receive and respond to requests for information
- Serve as the point of contact for post-event damage reports
- Provide situation updates, as necessary
- Notify and consult with subject matter experts from Federal, State, regional, and local authorities as needed
- Coordinate the collection and reporting of hazardous material event information and to the public through the SFFD Public Information Officer (PIO), DEM PIO, and/or the Joint Information Center (JIC).

**2.3.4 Deactivation**

ESF #10 will be deactivated when the need for additional oil and hazardous materials coordination has diminished or ceased, or when the responsible party has begun cleanup efforts. Deactivation of ESF #10 may occur incrementally according to the need or lack of need for specific ESF #10 functions. ESF #10 may be deactivated or scaled back at the discretion of the SFFD DOC, EOC Manager, or Operations Support Section Chief, as appropriate.



## Section 3: Planning Assumptions

The following planning assumptions for ESF #10: Oil and Hazardous Materials Response Annex apply:

- Users of the ESF #10: Oil and Hazardous Materials Response Annex, Part A: Land Response are familiar with the procedures and protocols defined in the *CCSF Area Plan for Emergency Response to Hazardous Materials Incidents*, and the *SFFD Hazardous Materials Operating Guide*.
- Effective Hazardous Materials response operations are based on the premise that controlling the tactical operations of companies and movement of personnel and equipment will provide a greater degree of safety and also reduce the probability of spreading contaminants
- Rescue and control operations will only be performed when the emergency responders can do so safely and without unnecessarily exposing themselves.
- Responses requiring Metropolitan Medical Task Force (MMTF) coordination will follow the protocols detailed in the MMTF Annex.
- Three situation types exist for an ESF #10 activation:
  - **Unplanned Event:** The response community has no prior knowledge of an event or the prior knowledge occurs on such short notice that there is insufficient time to plan a response.
  - **Simple Event:** Routine response coordinated at the field level involving departments that frequently work together (e.g. Fire, Law, EMS, DPT, DPW).
  - **Complex Event:** Non-routine response coordinated at the field, DOC, or EOC level that involves the activation of multiple DOCs and/or the pairing of non-traditional departments, entities, or assets.

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## List of Abbreviations and Acronyms

The following abbreviations and acronyms are used in this annex:

CCSF	City and County of San Francisco
DEM	Department of Emergency Management
DFG	California Department of Fish and Game
DOC	Departmental Operations Center
DOT	Department of Traffic
DPH	Department of Public Health
DPT	Department of Parking and Traffic
DPW	Department of Public Works
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
HazMat	Hazardous Materials
IAP	Incident Action Plan
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
JIC	Joint Information Center
ME	Office of the Chief Medical Examiner
MMTF	Metropolitan Medical Task Force
MTA	Municipal Transportation Authority
OSPR	Office of Spill Prevention and Response
PIO	Public Information Officer
SFFD	San Francisco Fire Department
SFPD	San Francisco Police Department
SFSD	San Francisco Sheriffs Department
UC	Unified Command
US EPA	United States Environmental Protection Agency
USCG	United States Coast Guard
WMD	Weapons of Mass Destruction

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