

HAZARDOUS MATERIAL SPILL

SCENARIO

A five-gallon holding reservoir for xylene ruptures and spills in an area within your laboratory. The technician in the area attempts to contain the spill by throwing towels over the product. Hospital staff smell the fumes and evacuate the laboratory. The spill and subsequent evacuation renders the laboratory non-functional and all testing ceases. The fumes from the spill enter the hospital HVAC system and spread to other areas of the hospital. Patients and staff are complaining of the odor and experiencing minor symptoms of coughing and tearing eyes.

The hospital Spill Response Team arrives to contain the area and evaluate the situation; they isolate and remove all remaining workers from the area. HVAC/air intake systems are diverted or shut down to prevent spread of fumes. Operations in affected areas have ceased, impacting patient care services. Affected workers are receiving evaluation and treatment in the ED. The Spill Response Team quickly realize that the size of the spill is beyond their scope and contact the hospital's hazardous material response provider and/or 911.

Concern grows among unaffected staff, patients, and visitors who believe they may have been exposed to the fumes. Many are requesting evaluation and treatment. Most of all people exposed have been discharged from the ED; but, there have been a few requiring admission. The hospital's Hazardous Materials response provider has effectively completed the spill clean up.

The media have arrived at the hospital and many patients' families, learning of the incident, are demanding information regarding the status of their family member.

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INCIDENT PLANNING GUIDE

Does your Emergency Management Plan Address the following issues?

Mitigation & Preparedness

Does your hospital have procedures for the following:

1.
 - Rapid HVAC and air intake control, shut down and diversion?
 - A procedure for individually controlling HVAC and return air for impacted areas?
 - Hazardous materials identification, control and cleanup?
 - Controlling access and egress into affected area?
 - HVAC preventive maintenance?
 - Engineering controls?
 - Staff training?
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Does your hospital have the following, to increase readiness for this scenario?

2.
 - A plan for communications or liaison with fire/hazmat, OSHA/EPA (state and/or federal), public health, poison control, and other relevant external entities
 - A hospital hazmat response and decontamination plan and team ("Spill Team") to prevent contamination of hospital staff and facilities
 - A procedure to monitor the health status of staff who were initially exposed and who participated in response and decontamination activities
 - A procedure for isolating the area to prevent spread of contamination
 - Standardized messages for communicating the risks associated with this event with staff, patients and the media
 - Access to expert information sources, e.g., Material Safety Data Sheet (MSDS), DOT Emergency Response Guide, CDC web site, city or county emergency operations plan
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Response & Recovery

Does your hospital have a plan to:

1.
 - Partial or full evacuation of the facility or relocating services if the chemical released poses an immediate danger to staff, patient care, and business?
 - Assess immediate and short-term impacts on interior construction and infrastructure systems?
 2. Does your lab have a procedure for notifying hospital staff of an incident and a policy for identifying alternative lab services?
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INCIDENT RESPONSE GUIDE

Mission: To effectively and efficiently manage a spill or leak involving hazardous material within the hospital.

Directions

- Read this entire response guide and review incident management team chart
 - Use this response guide as a checklist to ensure all tasks are addressed and completed
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Objectives

- Isolate the contaminated area
 - Identify the hazardous material
 - Patient triage and medical management
 - Protection of patients, staff and visitors
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Immediate (Operational Period 0-2 Hours) & Intermediate (Operational Period 2-12 Hours)

COMMAND

(Incident Commander):

- Establish Incident Command and activate PIO, Safety Officer, Liaison Officer and Operations and Logistics Section Chiefs
- Alert/notification of internal staff via overhead page (e.g., Code Orange: Internal)
- Activate and implement the hospital's Spill Response Team
- Establish Hospital Command Center (HCC) and assemble incident management team
- Activate the Medical/Technical Specialist – Chemical to assess the incident
- Activate Medical Care, Infrastructure, HazMat, and Security Branch Director
- Establish operational periods and operational objectives (e.g., protecting life safety of existing personnel and patients, limit further spread/damage, provide decontamination, and account for all personnel and patients)

(PIO):

- Establish a patient information center; coordinate with the Liaison Officer and local Emergency Management/Public Health/EMS

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INCIDENT RESPONSE GUIDE

COMMAND

(Liaison):

- Communicate with other healthcare facilities to determine:
 - Situation status
 - Surge capacity
- Patient transfer/bed availability
 - Ability to loan needed equipment, supplies, medications, personnel, etc.

(Safety Officer):

- Conduct ongoing analysis of existing response practices for health and safety issues related to staff, patients, and facility, and implement corrective actions to address
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OPERATIONS

- Ensure proper triage of symptomatic and non-symptomatic patients, staff, volunteers and others with possible exposure
 - Initiate and maintain patient care and management activities
 - Coordinate with the Security Officer, as necessary, to isolate the spill area
 - Communicate with local emergency management to identify toxic chemicals
 - Isolate the contaminated area
 - Identify the hazardous material
 - Provide situation report to IC including
 - Substance description and damage inflicted
 - Response / clean-up plan including potential notification and activation of contracted Hazardous Materials spill response provider
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PLANNING

- Establish operational periods and develop Incident Action Plan:
 - Engage other hospital departments
 - Share Incident Action Plan through Incident Commander with these areas
 - Provide instructions on needed documentation including completion detail and deadlines
 - Prepare and implement patient tracking protocols
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INCIDENT RESPONSE GUIDE

LOGISTICS

- Monitor the health status staff who participated in decontamination activities and actively provide rehabilitation as necessary
 - Anticipate an increased need for medical/surgical supplies, personal protective equipment, transporters, and personnel
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Extended (Operational Period Beyond 12 Hours)

COMMAND

(PIO):

- Continue patient information center, as necessary

(Liaison):

- Obtain a summary of the status and location of all incident patients from the Patient Tracking Officer. Disseminate to public health/EMS, local EOC, local Fire/HazMat Teams, or others as appropriate
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OPERATIONS

- Continue spill clean up and decontamination of the laboratory
 - Continue patient management activities
 - Monitor environmental conditions/fumes and continue to control HVAC operations to limit or prevent spread
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LOGISTICS

- Continue to monitor the health status of staff who were exposed to the fumes or who participated in decontamination activities
 - Monitor, in collaboration with the Medical Care Branch Director, all patients who were exposed or may have been exposed to the fumes/chemical
 - Ensure restoration or relocation of laboratory services
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FINANCE/ADMINISTRATION

- Monitor and track all personnel time and response costs
 - Track costs for outside resources assisting in response
 - Prepare summary reports for the Incident Commander every 8 hours and as requested
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INCIDENT RESPONSE GUIDE

Demobilization/System Recovery

COMMAND

(Incident Commander):

- Once notified of complete clean up and decontamination of the affected area(s), declare the emergency terminated and demobilize the HCC

(PIO):

- Notify the media of the termination of the event, outcomes and other pertinent information

(Safety Officer):

- Ensure safety of impacted area(s) and notify the IC of status

(Liaison):

- Notify local officials, Fire/HazMat teams and other hospitals of “all clear” status

OPERATIONS

- Complete clean up operations and assess decontamination
 - Implement local hazmat protocols to follow up with the local/state/federal agencies as appropriate (e.g., EPA)

PLANNING

- Conduct after-action review with the following:
 - Command personnel and Section Chiefs
 - Laboratory Staff
 - Spill Team Response Members
 - Staff, patients and volunteers
- Write after-action report and corrective action plan to include the following:
 - Summary of actions taken
 - Summary of the incident
 - Actions that went well
 - Area for improvement
 - Recommendations for future response actions
 - Recommendations for correction actions

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INCIDENT RESPONSE GUIDE

LOGISTICS

- Monitor the health status staff who participated in decontamination activities for an extended period
 - Conduct stress management and after-action debriefings and meetings as necessary
 - Inventory all HCC and hospital supplies and replenish as necessary and appropriate

FINANCE/ADMINISTRATION

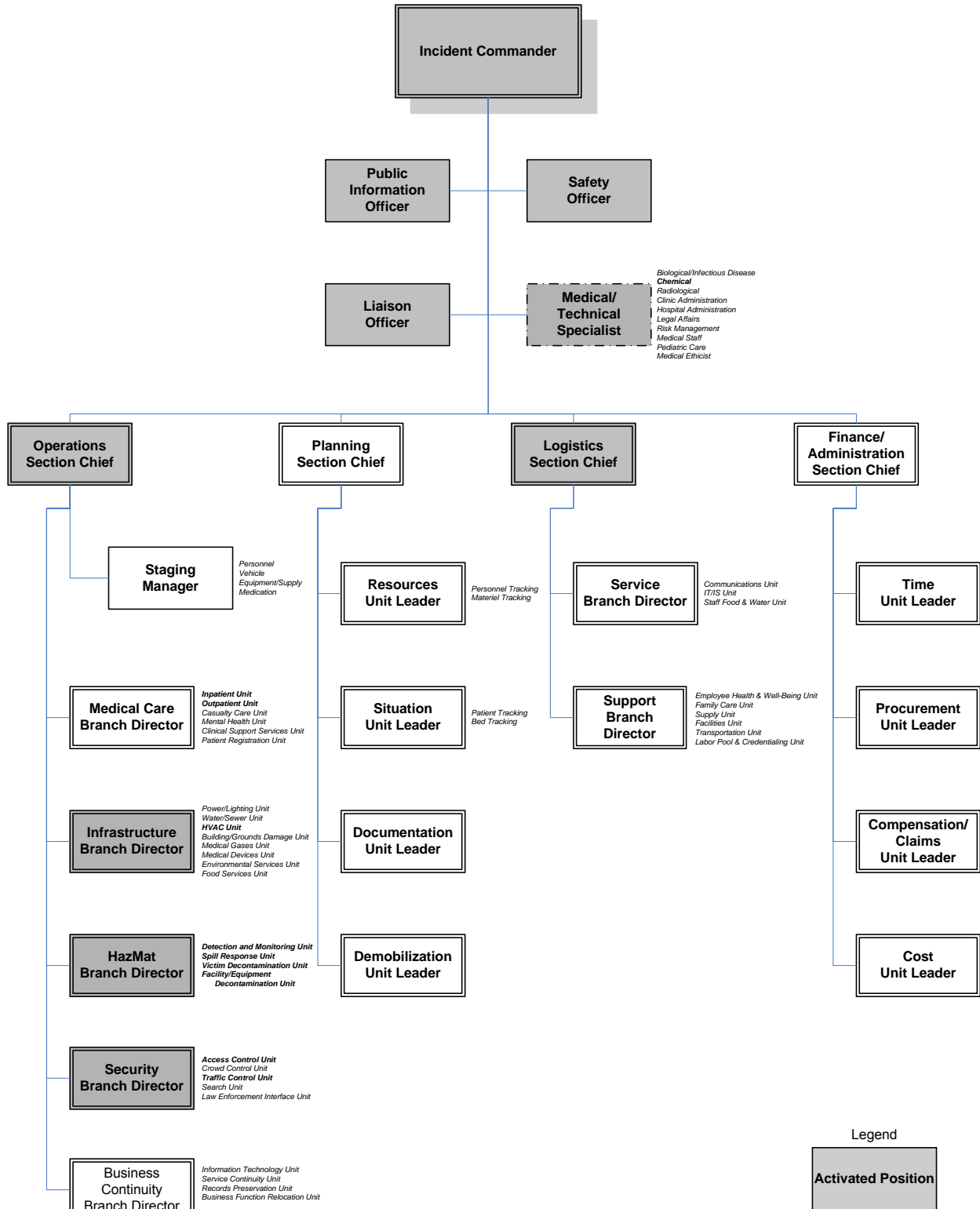
- Compile expense reports and submit to Incident Commander and proper authorities for reimbursement

Documents and Tools

- Hospital Emergency Operations Plan
 - Hospital Spill Response Plan
 - Hospital Decontamination Protocol
 - Hospital Mass Casualty Incident Protocol
 - Patient Tracking Form
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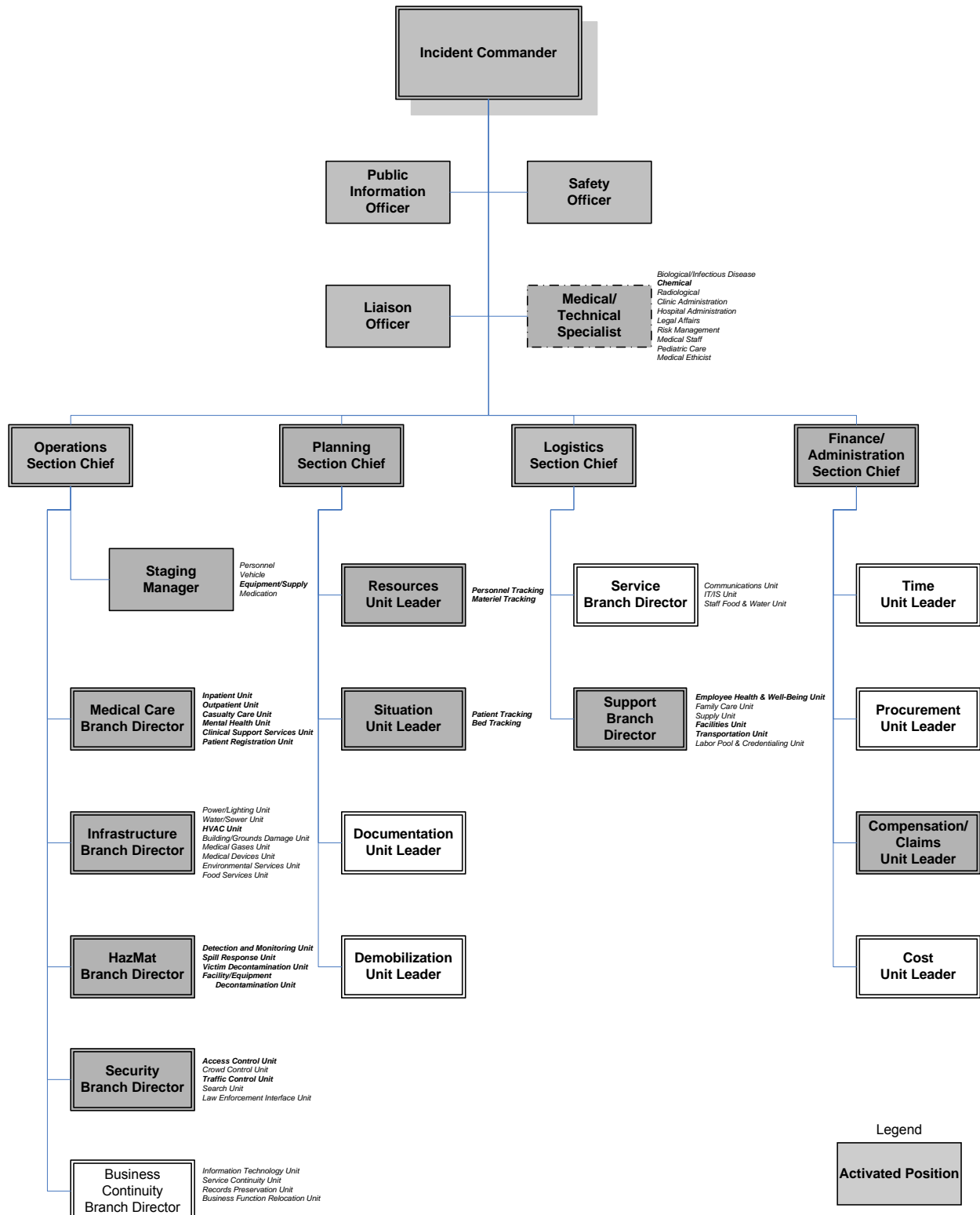
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INCIDENT MANAGEMENT TEAM CHART -- IMMEDIATE



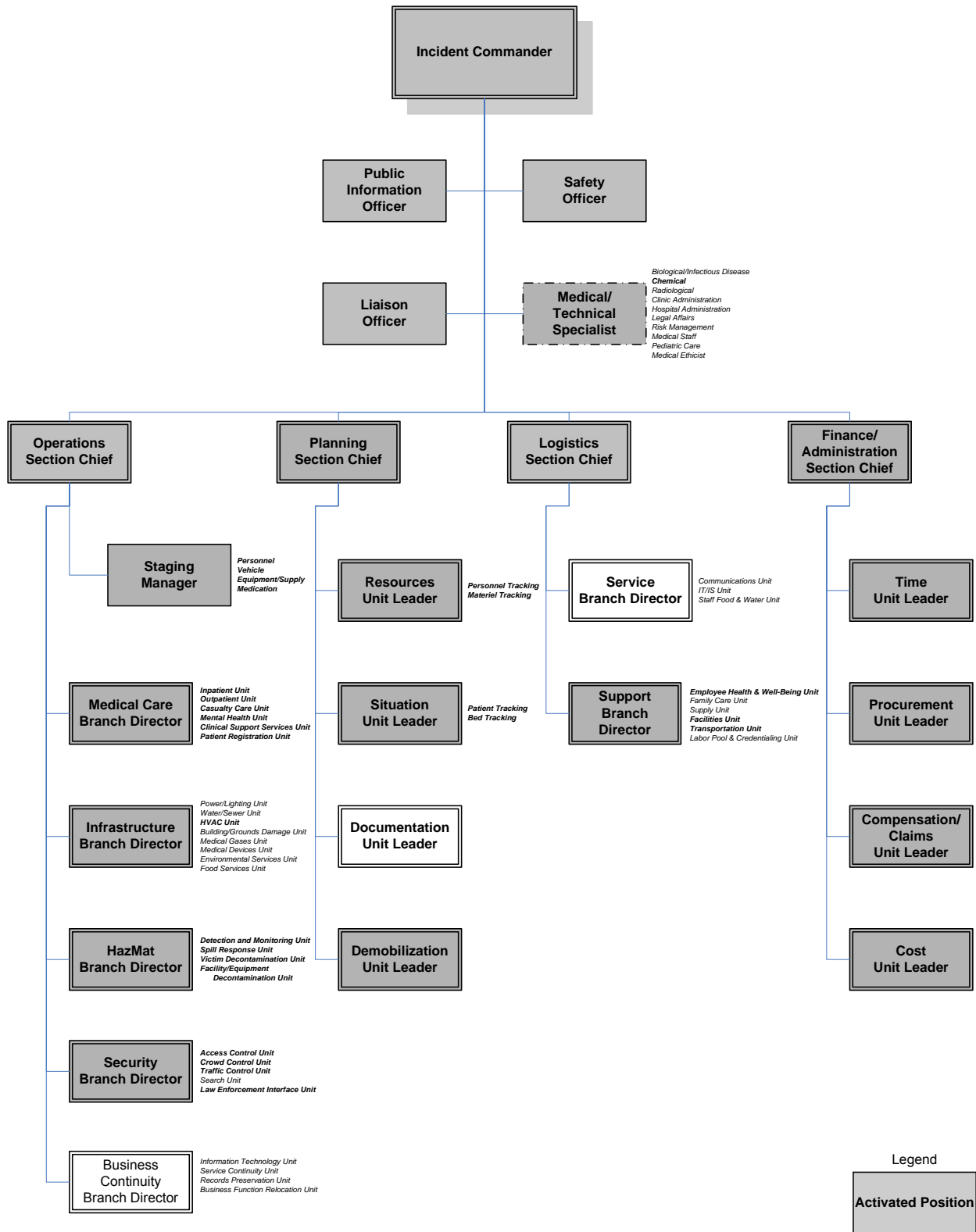
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INCIDENT MANAGEMENT TEAM CHART -- INTERMEDIATE



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INCIDENT MANAGEMENT TEAM CHART -- EXTENDED



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INCIDENT MANAGEMENT TEAM CHART – DEMOBILIZATION

Note: Demobilization is a gradual process, and positions should be deactivated according to the needs of the incident and progress to recovery

