



# Emergency Action Plan

Lewis Energy Group

## Table of Contents

<b>ESSENTIAL PERSONNEL PRIMARY CALL OUT LIST.....</b>	<b>iii</b>
<b>1.0 Purpose &amp; Policy Statement.....</b>	<b>1</b>
<b>2.0 Incident and Emergency Reporting and Response.....</b>	<b>2</b>
<b>3.0 Workplace Incidents and Emergency Events.....</b>	<b>2</b>
<b>4.0 Event Identification and Response Levels .....</b>	<b>2</b>
4.1 Level I Guidelines (Minor Event) .....	2
4.2 Level II Guidelines (Serious Event) .....	3
4.3 Level III Guidelines (Major Event) .....	3
<b>5.0 Incident Command Organization .....</b>	<b>3</b>
5.1 Emergency Operations Center (EOC).....	4
5.2 Public Information Officer (PIO).....	4
5.3 Liaison Officer .....	4
5.4 Safety Officer .....	4
5.5 Operations Section.....	5
5.6 Planning Section.....	5
5.7 Logistics Section .....	5
5.8 Finance/Administration Section .....	6
5.9 Incident Commander .....	6
<b>6.0 Incident Management Plans.....</b>	<b>9</b>
<b>7.0 Document Change History.....</b>	<b>9</b>
<b>TABLES.....</b>	<b>12</b>
TABLE 1 – FIRE, MEDICAL, POLICE, THIRD PARTY CONTACTS.....	13
TABLE 2 – EVENT DECISION MATRIX (FIELD) .....	14
TABLE 3 – EVENT DECISION MATRIX (OFFICE) .....	15
TABLE 4 – TRAINING REQUIREMENTS.....	16
TABLE 5 – LOGISTICS CHECKLIST .....	17
<b>ATTACHMENTS.....</b>	<b>19</b>
<b>ATTACHMENT A - INCIDENT MANAGEMENT PLANS .....</b>	<b>20</b>
<b>ATTACHMENT B - BLUE JACKET DUTIES.....</b>	<b>27</b>
<b>ATTACHMENT C – SITE SAFETY PLAN FORMS .....</b>	<b>28</b>
<b>ATTACHMENT D – WELL CONTROL EMERGENCY ACTION PLAN .....</b>	<b>41</b>
<b>ATTACHMENT E - WELL INTERVENTION ACTION PLANS.....</b>	<b>45</b>
<i>Well Kill Decision Tree Level I and Level II .....</i>	<i>46</i>

## Acronyms and Abbreviations

BOP	Blowout Preventer
BU	Business Unit
CFR	Code of Federal Regulations
EAP	Emergency Action Plan
EOC	Emergency Operations Center
ERT	Emergency Response Team
HAZWOPER	Hazardous Waste Operations Emergency Response
HSE	Health Safety and Environment
IC	Incident Commander
ICO	Incident Command Organization
IMP	Incident Management Plan
LEG	Lewis Energy Group
LSO	Logistics Staff Organization
OSHA	Occupational Safety Health Administration
PIO	Public Information Officer
PPE	Personal Protective Equipment
SDS	Safety Data Sheet
UGBO	Underground Blowout

## ESSENTIAL PERSONNEL PRIMARY CALL OUT LIST

NAME	TITLE	CONTACT INFORMATION
EMERGENCY OPERATIONS CENTER	On Duty	(210) 384 5000  <a href="mailto:eoc@lewisenergy.com">eoc@lewisenergy.com</a>
LEG HSE DEPARTMENT	On Duty	Check On-Duty Call List for # of on-duty HSE Representative  <a href="mailto:hsdept@lewisenergy.com">hsdept@lewisenergy.com</a>
PAT MENDOZA JR.	Manager, Completions and Production/Special Projects, International Colombia	(210) 465-2343  <a href="mailto:pmendoza@lewisenergy.com">pmendoza@lewisenergy.com</a>
HENRY BOYTE	Vice President, Senior Advisor Intl & US Ops, International Colombia	(956) 286-2344  <a href="mailto:henry@lewisenergy.com">henry@lewisenergy.com</a>
ROD LEWIS	CEO	  <a href="mailto:rrlceo@lewisenergy.com">rrlceo@lewisenergy.com</a>

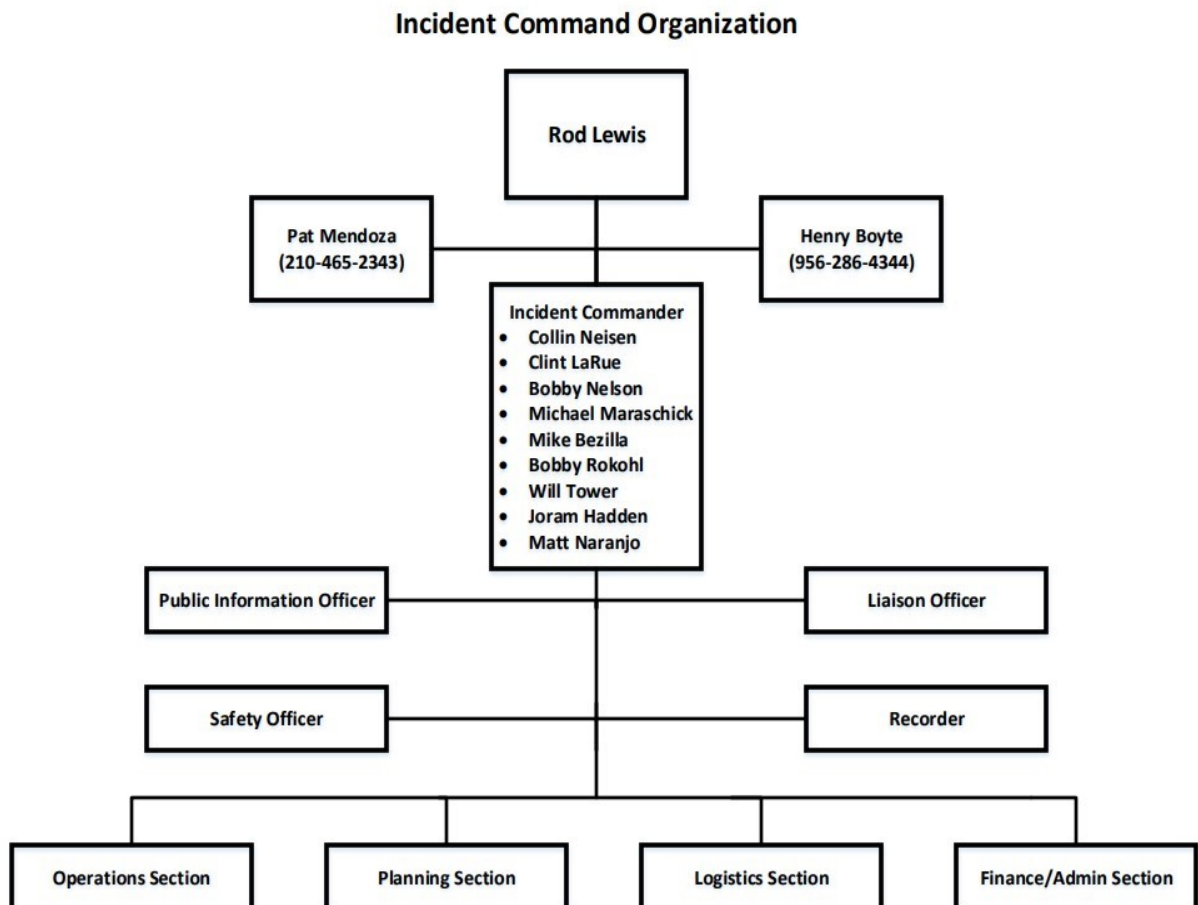
## 1.0 Purpose & Policy Statement

This Emergency Action Plan (EAP) is a guidance to assist with facilitation, organization and responsibilities for Lewis Energy Group (LEG) Team Members/contractors in the event of an incident or emergency. It provides planning options and identifies initial responsibilities and actions to be taken, to help protect Team Members/contractors and the surrounding community during the emergency including ensuring continuity of business operations, minimizing fiscal losses, protecting assets, being proactive with public relations and implementing measures to prevent a recurrence.

### LEG Policy Statement

Lewis Energy Group (LEG) maintains this Emergency Action Plan (EAP) as a guide to direct the safe, timely and effective response to incidents which can result in injury to Team Members/contractors, damage to LEG equipment and facilities or threaten the general safety, health and environment of the community. The EAP was developed and implemented in accordance with CFR 1910.38 and 1910.120q, Hazardous Waste Operations and Emergency Response (HAZWOPPER).

**Figure 1 - Incident Command Organization (ICO)**



## 2.0 Incident and Emergency Reporting and Response

When an incident occurs that adversely affects LEG assets and/or personnel, the incident shall be reported to BU supervision and HSE immediately. Once notified the HSE department will escalate ICO involvement as needed and assist with remedying and investigating the incident. If at any point you are unable to get ahold of BU supervision and/or HSE, you may contact the **LEG Emergency Operations Center (EOC)** located in San Antonio, Texas at **(210-384-5000)**. The EOC<sup>1</sup> is manned 24/7 and can assist with incident response as needed.

## 3.0 Workplace Incidents and Emergency Events

An incident is an event that takes place during routine operations. Incidents are typically more common than emergencies and often offer time to conduct preplanned responses to the situation. Addressing an incident in a timely manner will prevent it from progressing into a much worse event.

An emergency is an event or a condition that may be of a serious nature that may endanger persons, property, or the environment and demands immediate attention. An incident and an emergency require a response in accordance with the level I, II or III guidelines, as applicable, described in **Section 4.0** of this EAP. Incident Management Plans (IMPs) for a few of the more critical emergency events listed below provide the suggested steps to follow when responding to an emergency. The IMPs are provided in **Attachment A – Incident Management Plans**.

- Evacuation
- Building Fire
- Fluid Chemical Release/Spill/Toxic Releases
- Medical Emergency
- Natural Disaster
- Rescue and Medical Duties
- Active Shooter
- Bomb Threat

## 4.0 Event Identification and Response Levels

The event response levels (incident/emergency) defined below, are guidelines to identify the criticality of an incident or emergency, and proper response. The guidelines identify contacts, personnel, equipment and dispatching information as well as materials deployed during an incident/emergency. Depending on the criticality of the incident/emergency the BU Management and/or the HSE Department will use the incident response decision matrix (**Tables 2 and 3**) of this ICO, as a guide in the decision-making process, and to gather information on when to activate the ICO **Figure 1**.

### 4.1 Level I Guidelines (Minor Event)

Level I responses have minimal impact on operations and are considered a minor incident. The reporting of the incident will flow from the Team Member who first discovers it to their BU Supervisor and LEG Safety. The initial discovery Team Member, Blue Jackets and LEG Safety shall control the situation at the scene. When the incident location is secure, a plan for problem resolution or site

cleanup will be addressed with the affected field operating group(s). The timeframe for a level I incident is 24-hours. Events that last longer than the 24-hours may be elevated to level II emergencies.

#### ***4.2 Level II Guidelines (Serious Event)***

A level II response is an emergency having the potential for impact beyond the control, scope or capabilities of the company's first responder and Blue Jacket, and requires response from the ICO for handling and coordination. The event will be reported to BU Supervision and the Safety Department who will in turn notify essential Team Members (**Pat Mendoza/Henry Boyte**) within the ICO. Participation of ICO members may be limited depending on the event and will be determined at the time of the emergency by essential personnel, **Rod Lewis and essential personnel**. A level II emergency is a continuing event affecting the safety of Team Members/contractors, causing further damage to property, or affecting the environment. Level II is a serious emergency, and usually requires outside third party help in devising and implementing a solution. State and local officials may require notification at this level depending on the applicable laws and regulations associated with the incident. The Public Information Officer (PIO)<sup>1</sup> should be prepared to make government and public notifications, in case the event escalates to a level III emergency event. Team Members speaking to the public will work with the Incident Commander (IC) and PIO to prepare media statements in consultation with Rod Lewis, and will release the statement, only after Rod Lewis has approved it. Additionally, the IC and PIO leader will inform the Liaison Officer regarding regulatory notifications and filings. These ICO members will decide the level of involvement needed from outside entities or authorities to resolve the emergency. All Level II events require an established perimeter with controlled access point(s).

#### ***4.3 Level III Guidelines (Major Event)***

A level III response is a crisis emergency that will likely involve the entire ICO. A level III emergency has the potential to threaten public health, safety, the environment and/or equipment. Immediate notification through the LEG EOC is required. The EOC will notify the essential personnel (Pat Mendoza/Henry Boyte) within the ICO first. The EOC will also call out police, fire, medical, as needed and coordinate with essential Team Members to call out third party vendors. Essential personnel within the ICO will take immediate action to ensure the safety of personnel and contractors, property and the community, provide medical attention to any injured personnel, secure the site, control access to the area, call for help, and monitor for situation changes. Blue Jackets will assist in emergency duties (**Attachment B - Blue Jacket Duties**).

### **5.0 Incident Command Organization (ICO)**

The LEG ICO is a streamlined organization that identifies trained Team Members, their functional responsibilities and the authority to act during a Level 2 & 3 incident. Designed to be easily expandable or minimized based on the size and severity of the incident/emergency, a single person with appropriate training may be responsible for more than one role within the ICO. The following information describes the positions within the ICO and their general function as presented in **Figure 1**.

---

<sup>1</sup> PIO – Public Information Officer

### ***5.1 Emergency Operations Center (EOC)***

The Emergency Operations Center (EOC) in San Antonio, Texas will be responsible for contacting Team Members through a variety of devices, delivering a secure message and collecting their responses. The EOC is operated 24/7 and can be contacted at **(210-384-5000)**.

### ***5.2 Public Information Officer (PIO)***

Responsibilities of the PIO Include:

- Participating in planning meetings.
- Determining, according to direction from the ICO, any limits on information release.
- Developing accurate, accessible, and timely information for use in press/media briefings.
- Obtaining Incident Commander's (IC) approval of news releases.
- Conducting periodic media briefings.
- Monitoring and forwarding media information useful to incident planning.
- Maintaining and providing information about the incident to the incident personnel.

### ***5.3 Liaison Officer***

Responsibilities of the Liaison Officer Include:

- Participating in planning meetings.
- Acting as the point of contact for public agency representatives (i.e., TCEQ/EPA/RRC).
- Maintaining a list of assisting and cooperating agencies and agency representatives.
- Coordinating agency contacts and if necessary, providing a temporary location for them to conduct business and work during the incident.
- Monitoring incident operations; and
- Providing agency-specific demobilization requirements and information.

### ***5.4 Safety Officer***

Responsibilities of the Safety Officer Include:

- Participating in planning meetings.
- Identifying and mitigating hazardous situations.
- Ensuring the timely delivery of safety messages and briefings.
- Exercising emergency authority to stop and prevent unsafe acts.
- Reviewing this EAP for safety updates.
- Assigning qualified assistants to evaluate special hazards.
- Initiating preliminary investigations of accidents within the incident area.
- Reviewing and approving the Medical Plan.



### ***5.5 Operations Section***

The Operations Section is responsible for managing all tactical (immediate and/or short term) operations at an incident location using the guidance in this EAP. The need to expand the Operations Section is dictated by the number of resources involved and resource control considerations. Responsibilities include:

- Assuring the safety of tactical operations.
- Managing tactical operations.
- Developing and supervising the operations portion of this EAP.
- Requesting additional resources, as needed, to support tactical operations.
- Approving the release of resources from their active operational assignments.
- Making or approving quick or immediate changes, as needed, to this EAP.
- Maintaining close contact with the Incident Command Organization (ICO), Operations personnel, and other agencies involved in the incident.

### ***5.6 Planning Section***

The Planning Section is responsible for planning services for the incident, situation and resource information collection, evaluation and processing of information for use in developing action plans, and tracking and disseminating information from the EAP through formal briefings or map and status board displays. Responsibilities include:

- Collecting and managing all incident-relevant operational data.
- Supervising updates to this EAP by providing input to the ICO and Operations.
- Incorporating Traffic, Medical and Communications Plans into this EAP, as necessary.
- Facilitating and conducting planning meetings.
- As needed, reassigning personnel within the ICO.
- Compiling and displaying incident status information.
- Establishing information requirements and reporting schedules for units (e.g., Resources, Situation Units).
- Determining the need for specialized resources.
- Establishing specialized data collection systems as necessary (e.g., weather).
- Assembling information on alternative strategies.
- Providing periodic predictions on incident potential.
- Report significant changes in incident status.
- Oversee preparation of the Resource Demobilization Plan.

### ***5.7 Logistics Section***

The Logistics Section provides incident support needs with the exception of support to air operations. This section provides:

- Facilities.
- Transportation (other than air).

- Communications.
- Supplies.
- Equipment maintenance and fueling.
- Food services (for responders).
- Medical services (for responders).
- Off-Incident resources.

Logistics Section responsibilities include:

- Managing incident logistics.
- Providing logistical input to the EAP, as needed.
- Briefing Logistics Staff, as needed.
- Identifying and requesting anticipated incident service and support.
- Organizing, assigning and overseeing development of Communication, Medial and Traffic Plans, as needed.
- Organizing and overseeing demobilization of the Logistics Section and associated resources at the end of the incident.

### ***5.8 Finance/Administration Section***

The Finance/Administration Section is responsible for managing the financial aspects of the incident. Not all incidents will require assistance from this Section. This Section is activated, as needed.

The responsibilities of this Section include:

- Managing financial aspects of the incident.
- Providing financial and cost analysis information, as requested.
- Addressing compensation and claims functions relative to the incident.
- Gathering and managing financial information from briefings.
- Developing the Operating Plan for this Section.
- Filling supply and support needs.
- Determining the need to set up and operate an incident commissary.
- Meeting with and assisting agency representatives as needed.
- Maintaining daily contact with agency(s) headquarters on finance matters.
- Ensuring that accurate personnel time records are completed and transmitted to home agencies.
- Ensuring obligation documents initiated during the incident are properly prepared and completed.
- Briefing agency personnel on incident-related financial issues needing attention or follow up.
- Provide input to this EAP.

### ***5.9 Incident Commander***

The Incident Commander is not a part of the general or Command Staff. The Incident Commander is responsible for the overall management of the incident. Responsibilities include the following:

- Ensuring incident safety.
- Establishing an Incident Command Post.
- Obtaining a briefing from the prior Incident Commander and/or assessing the situation.
- Establishing immediate priorities.
- Determining incident objectives and strategies followed during the incident.
- Establishing the level of organization needed, and continuously monitoring the operation and effectiveness of the ICO.
- Providing ICO with relevant updates regarding the incident
- Managing planning meetings, as required.
- Approving and implementing this EAP.
- Coordinating the activities of the Command and General Staff.
- Approving requests for additional resources or for the release of resources.
- Approving the use of participants, volunteers, and auxiliary personnel.
- Ordering demobilization of the incident when appropriate.
- Ensuring incident after-action reports are complete.
- Prepare statement(s) for legal department review/approval/release.

The following Team Members have the relevant training/experience and have been approved to serve as the Incident Commander in the event of an Emergency:

- Rod Lewis
- Henry Boyte
- Pat Mendoza
- Collin Neisen
- Clint LaRue
- Bobby Nelson
- Michael Maraschick
- Mike Bezilla
- Bobby Rokohl
- Will Tower
- Joram Hadden
- Matt Naranjo

In order to standardize the chain of communication for Level II and III events the Incident Commander will be in charge of relaying relevant details (incident progress, issues, concerns, costs, etc.) to the ICO through the creation of a Microsoft Teams chat. These duties can be done by the Incident Commander themselves or by an appointed individual.

### ***5.10 External Affairs and Media Relations***

The LEG legal department will manage external affairs and media relations surrounding an incident/event. Third party contractors are prohibited from making any statements about the event or the response to any personnel outside of LEG.

#### **External Affairs**

Some examples of the external affairs that the ICO staff may be required to handle during the event include:

- Providing subsistence to displaced residents. This includes the logistics and accounting responsibilities associated with the event.
- Performing and dealing with local and state officials. This duty may require technical input from the field or ICO staff.
- Legal affairs relating to:
  - Contract development for specialized well control or relief well services.
  - Permit for relief wells.
  - Approve overtime for local law enforcement officials.
  - Grant surface access permission to land near the location for the incident or relief well location.
- Reporting for insurance purposes.
- Non-operating partner relations; and
- Landowner relations.

### **Media Relations**

The LEG legal department will be the sole party responsible for the dissemination of any information regarding any event. Refer all inquiries about the incident/event to the LEG main office in San Antonio, Texas. The appropriate member of the legal team will address the inquiry.

Accurate information and communication regarding the event is critical to preserve and defend LEGs reputation. As a result, LEG will make a concerted effort to control the flow of certain information to the media and the public.

The following items are especially vulnerable to become rumors that can be harmful:

- Information regarding how or why the event occurred;
- Injured personnel;
- Expected duration of the intervention; and
- Control and status of the event.

LEG shall make a concerted effort to circumvent negative publicity, by presenting a positive image with regular updates to the media to:

- Diffuse rumors about the event;
- Provide the public with a sense that the event will be under control as quickly and safely as possible; and
- Prevent emergency response and local officials from relaying incorrect information to the media by keeping them informed.

Not all events attract the attention of the media. In general, LEGs involvement with the media should only take place whenever they have shown interest in the event.

### **Media Information**

Direct all media inquiries to the LEG legal department that will serve as the sole point of contact for media. Communication with the media will be by a designated and trained spokesperson(s). If pressured to make a statement, statements such as “We will provide you with any information we

can, LEG has personnel assessing the situation and I cannot speculate on what caused this event. Please call 210-384-3200 during business hours and ask to speak with public relations department” are appropriate.

The legal department shall delegate questions, inquiries and requests to appropriate executive or management Team Members.

Team Members WILL NOT post information or media on any website or social media sites regarding LEG events, everyday operations or trade secrets. Team Members are prohibited from taking photos and other media recordings of any incident or event.

## 6.0 Incident Management Plans

IMPs<sup>2</sup> provide procedures for handling events. IMPs detail information about the structure of the Incident Command Organization, resource requirements, any necessary staff movements and critical processes. Team Members shall be familiar with the IMPs and trained appropriately for their role in responding.

Numerous incidents and emergency events can occur. It is impossible to develop an IMP for each one; however, **Attachment A** provides IMPs for the most critical emergencies. Response to all events regardless of severity will follow this EAP.

- Evacuation
- Building Fire
- Fluid Chemical Release/Spill/Toxic Release/Public Impact
- Medical Emergency
- Natural Disaster
- Rescue and Medical Duties
- Active Shooter
- Bomb Threat

## 7.0 Document Change History

Version	Change Date	Change Description	Changed by	Approved by	Approval Date
2	2/22/19	Incident Command Organization Tree. Incident Command Organization Descriptions.	K. Phillips/ESC	ESC	2/22/19
2.1	8/20/19	<ul style="list-style-type: none"><li>• Change Introduction to Purpose &amp; Policy Statement.</li></ul>		Ken Phillips	8/20/19

---

<sup>2</sup> IMP - Incident Management Plan

		<ul style="list-style-type: none"> <li>Deleted 2<sup>nd</sup> paragraph from Introduction and put Policy Statement in its place.</li> <li>Update 3<sup>rd</sup> party vendors</li> <li>Add # for LEG Gas Control</li> <li>Change PIC to PIO</li> </ul>	Colin Clark		
2.2	2/8/2023	<ul style="list-style-type: none"> <li>Reduce EOC Involvement</li> <li>Revamp processes</li> <li>Add MS Teams Communications</li> <li>Revise ICO</li> <li>Added new Site Safety Plan</li> <li>Remove some Well Control Specifics</li> </ul>	Colin Clark	Awaiting Approval	

NOTE: The sub-committee and the executive safety committee shall review and approve changes to this document. The document change log shall reflect all changes. This log shall be current to maintain audit compliance. A review of this plan shall follow a level II or level III emergency event, or annually, whichever comes first, and revised as needed by the HSE Department. A hard copy shall be provided and this EAP shall be kept electronically.

THIS PAGE INTENTIONALLY LEFT BLANK

## **TABLES**

---

**Table 1 – Fire, Medical, Police and Third Party Notification**

**Table 2 – Incident Decision Matrix (Field)**

**Table 3 – Incident Decision Matrix (Office)**

**Table 4 – Training Requirements – Emergency Response**

**Table 5 – Location Support Group Checklist**



**TABLE 1 – FIRE, MEDICAL, POLICE, THIRD PARTY CONTACTS**

Entity	Contact Number
<b>LEG EMERGENCY OPERATIONS</b>	<b>210-384-5000</b>
<b>LEG SECURITY</b>	<b>956-324-8423</b>
<b>LEG Gas Control</b>	<b>956-728-6962</b>
Border Patrol/Carrizo Springs	830-876-3557
Border Patrol/Cotulla	830-879-3051
Border Patrol Laredo	956-764-3200
DPS Cotulla	830-879-2512
DPS Laredo	956-728-2200
EMS Carrizo Springs	830-876-5800
EMS Cotulla	830-879-3331
EMS Laredo	956-725-4461
EMS Pearsall	830-334-3617
Encinal Police Dept.	956-948-5226
Fire Department/Cotulla	830-879-3041
Fire Department/Pearsall	830-334-2122
Gas Control	956-948-5300
HAZMAT	956-791-3473
Home Land Security	855-553-7902
OSHA	1-800-321-6742
One Call	811
Poison Control	800-222-1222
Sheriff Dept./Dimmit Co.	830-876-3508
Sheriff Dept./Frio Co.	830-334-3311
Sheriff Dept./La Salle Co.	830-879-3041
Sherriff Dept./Webb Co	956-722-1793
Sheriff Dept./Zavala Co.	830-374-3615

**TABLE 2 – EVENT DECISION MATRIX (FIELD)**

Command Level	Minimum Criteria for Involvement (field examples)
<b>Level I: MINOR EVENT</b>  Involves on-site and office personnel.  A situation controlled at the scene by first responders and in the office by Blue Jacket Team Members. Any impact on operations is minimal.	<ul style="list-style-type: none"> <li>• Gas kick during drilling/well servicing operations</li> <li>• Minor spills to soil</li> <li>• An incipient stage fire</li> <li>• Vehicle accident involving property damage to LEG vehicle(s) with no injuries</li> <li>• Vandalism (no threat to the public or environment)</li> </ul>
<b>Level II: SERIOUS EVENT (EMERGENCY)</b>  Involves Incident Response and Corporate Management Teams.  Any event with the potential for impact beyond the control, scope and capabilities of the first response and Blue Jacket personnel, and requires attention from the next level of company authority for handling and coordination. The event is a continuing event, affecting the safety of personnel, further damage to property, or impact the environment.	<ul style="list-style-type: none"> <li>• Fires which require response from outside agencies</li> <li>• Spill of a hazardous substance to waters of the U.S.</li> <li>• Spill of hazardous substances which pose a threat to the public or the environment (i.e., nearby homes, buildings, public roads)</li> <li>• Uncontrolled leak in pressurized vessel, pipeline, wellhead, etc.</li> <li>• Vapor cloud release with concentrations above PEL</li> <li>• Injury requiring emergency medical care.</li> <li>• Upset condition air emissions</li> <li>• Significant Threat to Equipment and/or LEG Personnel</li> </ul>
<b>Level III: CRITICAL EVENT (EMERGENCY)</b>  Involves Incident Response and corporate Management teams.  An event immediately threatens public health, safety or the environment. Notify local operations management and corporate management support immediately.	<ul style="list-style-type: none"> <li>• A pipeline rupture that is threatening public health or safety.</li> <li>• Fatal injury (Company or Contract Employee).</li> <li>• Hospitalization of three or more Team Members because of a work related injury occurring from the same incident.</li> <li>• Well blowout.</li> <li>• Uncontrolled vapor release of hazardous substance(s) in excess of reportable quantity.</li> <li>• Uncontrolled fire where an explosion could result.</li> <li>• Natural disaster (tornado, earthquake, flood).</li> <li>• Active Shooter/Bomb threat.</li> <li>• Civil disturbance (protestors).</li> </ul>

**TABLE 3 – EVENT DECISION MATRIX (OFFICE)**

Command Level	Criteria for Involvement (office examples)
<b>Level I: MINOR INCIDENT</b>  Involves first responders and Blue Jackets.  A situation controlled at the scene by First Responders and in the office by the Blue Jacket Team Members. The incident does not threaten personnel, property or the environment. Any impact on operations is minimal.	<ul style="list-style-type: none"> <li>• Evacuations</li> <li>• Security</li> <li>• Natural Disasters</li> <li>• Property Damage</li> <li>• Fire or Explosions</li> <li>• Personnel</li> <li>• Transportation</li> </ul>
<b>Level II: SERIOUS EVENT (EMERGENCY)</b>  Involves the Corporate Management Team, emergency medical services, fire department or police.  A situation with the potential for impact beyond the control, scope and capabilities of the first responders and Blue Jacket Team Members and requires attention from the next level of company authority for handling and coordination. The event is a continuing event affecting the safety or personnel, further damage to property, or impact the environment.	<ul style="list-style-type: none"> <li>• Evacuations</li> <li>• Security</li> <li>• Media/Public relations</li> <li>• Natural Disasters</li> <li>• Property Damage</li> <li>• Fire or Explosions</li> <li>• Personnel</li> <li>• Transportation</li> <li>• Public Impact</li> </ul>
<b>Level III: CRITICAL EVENT (EMERGENCY)</b>  Involves the Incident Response and Corporate Management Teams.  Any event immediately threatening public health, safety or the environment. Notify local operations and corporate management immediately.	<ul style="list-style-type: none"> <li>• Evacuations</li> <li>• Security</li> <li>• Natural Disasters</li> <li>• Property Damage</li> <li>• Fire or Explosions</li> <li>• Personnel</li> <li>• Transportation</li> <li>• Public Impact</li> <li>• Media/Public Relations</li> </ul>

**TABLE 4 – TRAINING REQUIREMENTS**

<b>Emergency Responders 29 CFR §1910.120(q)(6)]</b>	
<b>First Responder Awareness Level</b> Witnesses or discovers a release of hazardous substances and is trained to notify the proper authorities.	Sufficient initial training and competencies annual refresher
<b>First Responder Operations Level</b> Responds to the release of a hazardous substance in a defensive manner, without trying to stop the release.	8-hours initial training and competencies annual refresher
<b>Hazardous Materials Technician</b> Responds aggressively to stop the release of a hazardous substance.	24 hours initial training and competencies annual refresher
<b>Hazardous Materials Specialist</b> Responds with and in support of HAZMAT technicians, but has specific knowledge of various hazardous substances.	24 hours initial training and competencies annual refresher
<b>On Scene Incident Commander</b> Assumes control of the incident scene beyond the first responder awareness level.	24 hours initial training and competencies annual refresher

**TABLE 5 – LOGISTICS CHECKLIST**

ITEM	QUANTITY	DESCRIPTION
1.	2	Multiuse Cell Phone Booster
2.	1	Wifi/Internet
3.	1	Hard Line to CP (Data Van) ERC
4.	15	Radios with Headsets and Mic
5.	1	CP Data Van basic Load Package
6.	3	Traffic Control Plan
7.	2	Security Camera for 24/7 Monitoring
8.	1	Meal Plan and Catering
9.	3	Port-a-Potties
10.	1	Trash Trailer
11.	1	Ice Machine
12.	20 Cases of Each	Stock of Water/Gatorade
13.	2	Wind Socks
14.	1	Helipad
15.	1	Air Compressor
16.	1	Copier and Photocopy Machine
17.	1	Drone
18.	1	LEL/H2S Monitoring System
19.	1	Well Control Response Box
20.	1	Large Location Map
21.	1	Site Environmental Map
22.	1	Large organizational wall chart identifying site emergency response, ERC response and roles.
23.	1	Incident Management Plan
24.	1	Emergency Response Plan
25.	1	HSE Policies
26.	1	Medical Emergency Response Plan
27.	1	Field Safe Ops Procedures
28.	10	Post-It Pads large
29.	10	Tally Books
30.	3+3	Marker (RED & Black)
31.	1+1	Scotch Tape Holder and Tape
32.	1+1	Stapler and Staples
33.	5	Note Books
34.	30	Telephone Call Record
35.	30	Media Holding Statement
36.	20	Emergency Response Log
37.	20	Initial Statement to Staff
38.	60	Blank White Paper or Tablets

THIS PAGE INTENTIONALLY LEFT BLANK

## **ATTACHMENTS**

---

**Attachment A – Incident Management Plans**

**Attachment B – Blue Jacket Duties**

**Attachment C – Site Safety Plan Forms**

**Attachment D – Well Control Emergency Action Plan**

**Attachment E – Well Intervention Action Plans**

## **ATTACHMENT A - INCIDENT MANAGEMENT PLANS**

---

**Fluid Chemical Release**

**Injury/Illness Decision Tree**

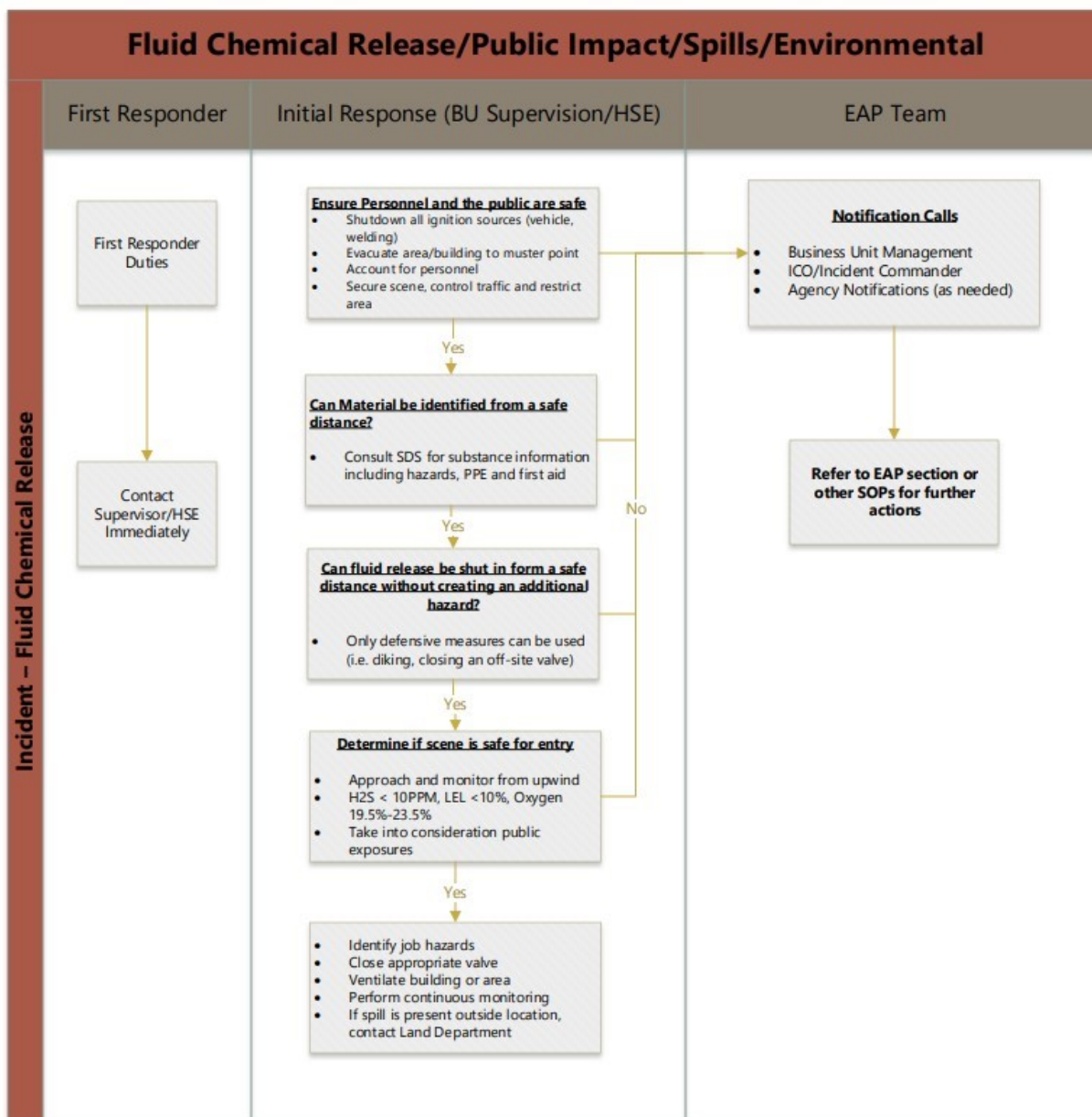
**Natural Disaster**

**Rescue and Medical Duties**

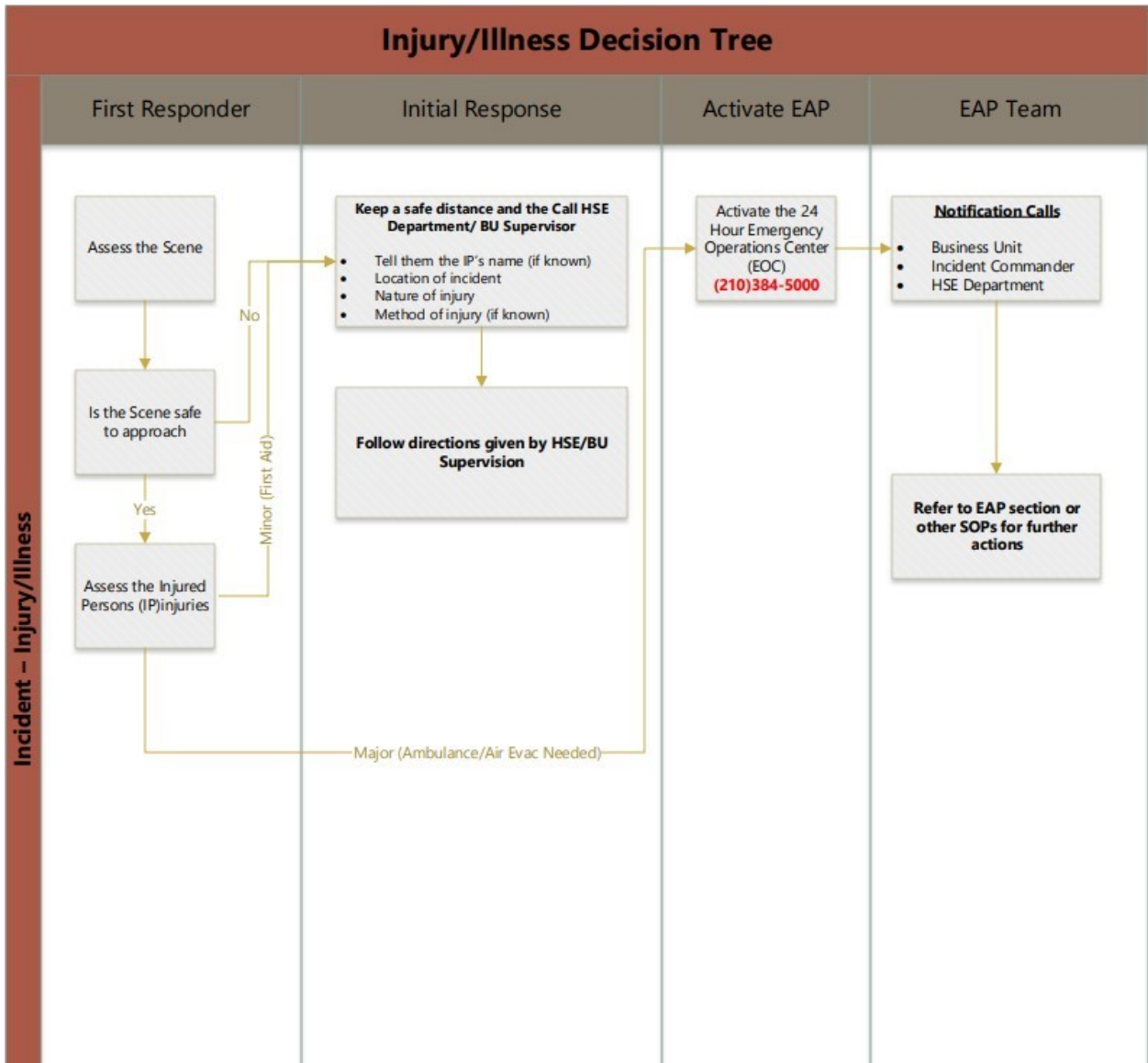
**Violent Attack/Active Shooter**

**Bomb Threat**



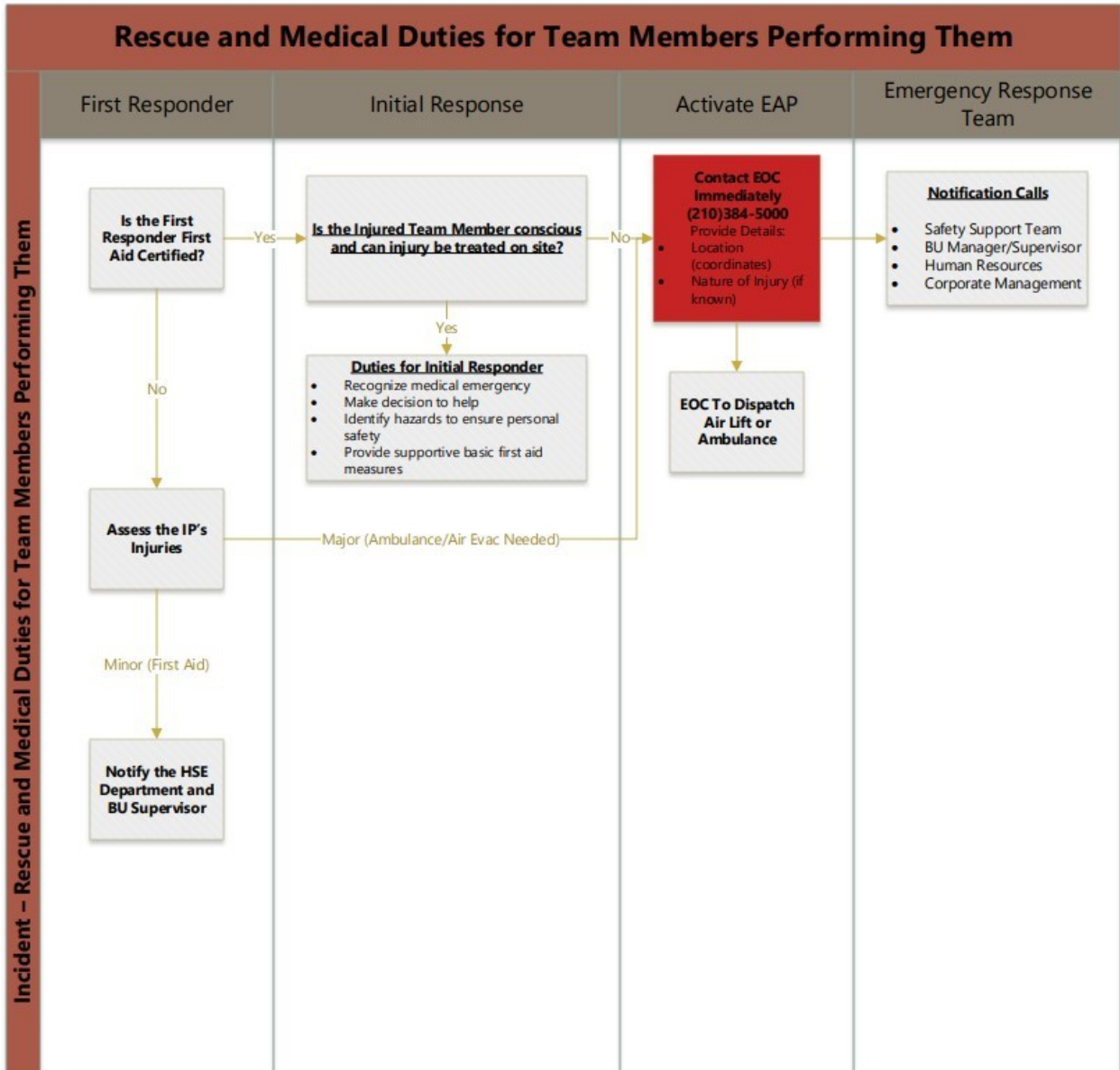


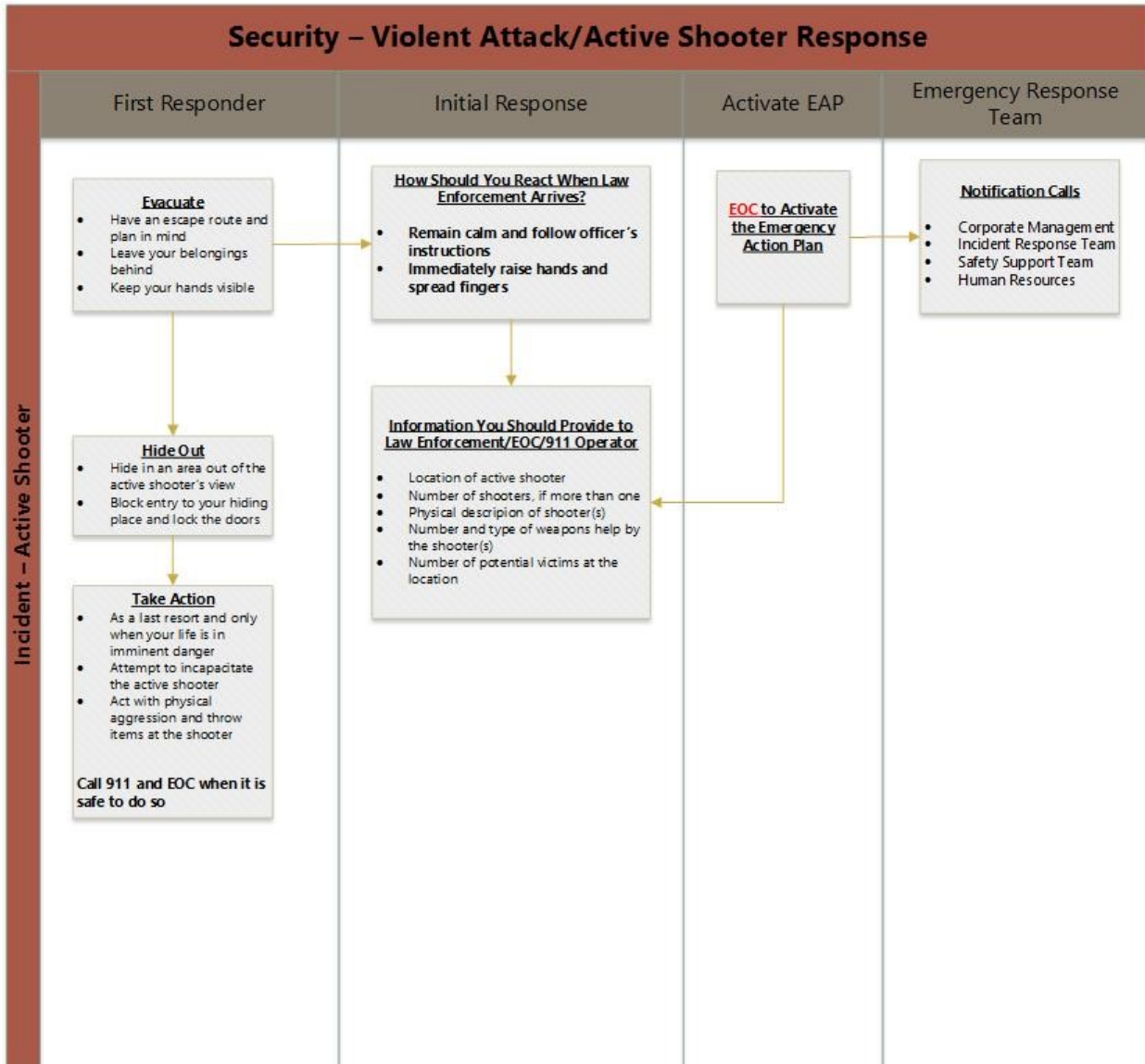
Incident – Fluid Chemical Release

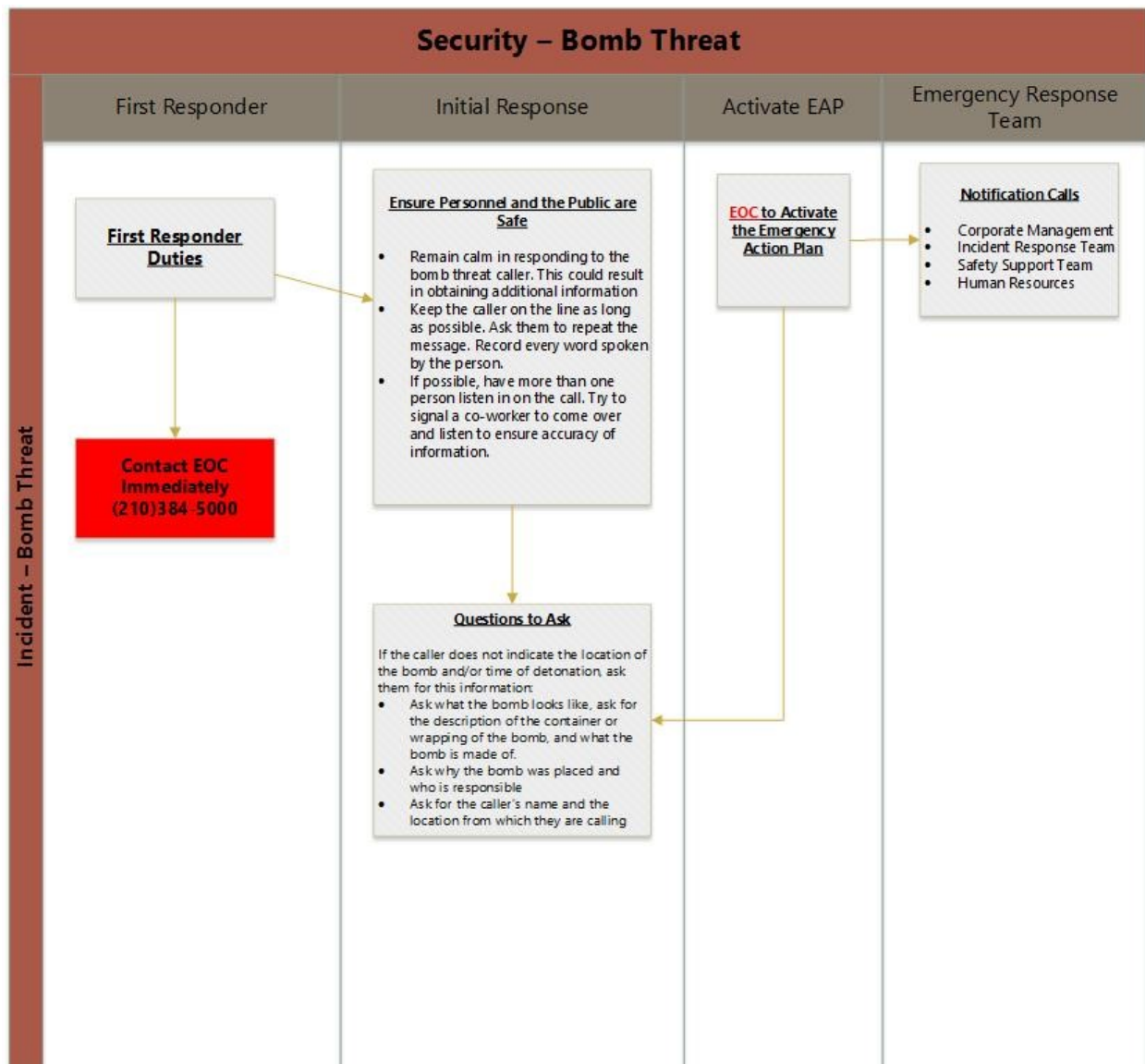


Incident – Injury/Illness

Natural Disaster	
Actions Based on Type	
Incident – Natural Disaster/Flood/Tornado/Other	<p><b>Flooding:</b></p> <ul style="list-style-type: none"> <li>• Leave equipment onsite in safe condition and secure location</li> <li>• Account for all personnel on sign-in sheet and evacuate to higher ground. All lone workers shall check in with their supervisor or LEG EOC</li> <li>• If water is flooding road way, DO NOT attempt to cross. Turn Around Don't Drown</li> <li>• If individuals can not leave, shelter in place. Close all doors and move to second floor</li> <li>• Notify supervisor when you are safe</li> </ul>
	<p><b>Tornado:</b></p> <ul style="list-style-type: none"> <li>• Office Personnel: Shelter in place in an area or room with no windows</li> <li>• Field: Try not to remain in vehicle. If tornado is visible you may be able to drive out of it's path by moving at right angles to the tornado. If forced to remain in vehicle, park away from trees, fasten seat belt, put head down below the windows and cover up with a jacket or any other covering you can find to prevent harm from debris.</li> <li>• Seek shelter in sturdy building, if not available, lie face down in a low point such as an irrigation ditch, hole, etc. Stay away from trees and power lines.</li> <li>• Notify supervisor when you are safe</li> </ul>
	<p><b>Lightning:</b></p> <ul style="list-style-type: none"> <li>• If lightning is noticed by any Team Member within 5 miles of location notify supervisor immediately and shut down the job when it is safe to do so (30mins after the last lightning strike). Lower the booms on any vertical equipment if the job permits. Secure well and well site if work is being done to the well other than normal production. Notify all on site Team Members to get away from equipment and wellhead, and stay in company vehicle until the storm passes.</li> </ul> <p><b>EQUIPMENT ON FIRE:</b> In the event of a lightning strike on a tank battery and or other piece of equipment, notify HSE/BU Supervisor immediately along with EOC.</p> <p><b>EQUIPMENT IS DAMAGED AND REMEDIATION IS REQUIRED:</b> In the event of a lightning strike on a tank battery, notify HSE/BU Supervisor immediately along with EOC. Then follow the Fluid Release Incident Plan in this EAP/ Secure wells and equipment, evaluate site for hazards, damages, and spills.</p>







## ATTACHMENT B - BLUE JACKET DUTIES

---

Blue Jackets are a select group of LEG office based Team Members that have volunteered to provide assistance during emergencies. Blue Jacket responsibilities include, but are not limited to:

- Call 911
- Notify LEG HSE Department and/or Lewis Energy Emergency Operations Center (EOC)
- Evacuate Team Members, if necessary from a designated area.
- Account for all evacuees after they reach a designated briefing area.
- Administer basic first aid if required.
- Assist with shelter-in-place during acts of violence or weather related emergencies.

Blue Jackets have a responsibility for reporting incidents/emergencies, becoming familiar with building evacuation plans, knowing shelter-in-place procedures, and knowing the location of their designated briefing areas. They are also required to:

- Attend training such as First Aid/CPR/BBP
- Participate in emergency drills.
- Maintain a list of Team Members in their area of responsibility.
- If needed, contact other Blue Jackets for backup.
- Know if hazardous chemicals are stored in area of responsibility and the location of the Safety Data Sheets (SDSs)

## **ATTACHMENT C – SITE SAFETY PLAN FORMS**

---



# Site Safety Plan

(ICS-208)

GENERAL INFORMATION			
Site Name			
Physical Location			
Operator		GPS/Lat	
Plan Date		GPS/Longitude	

SITE AND SITUATION DESCRIPTION		
Situation Description	Current Condition	
	Description of Well	
Site Description	General Description	
	Hazards	
	Population Density	
	Topography	
Safety Meeting	Daily Toolbox:	
Site Evacuation		

COMMAND STAFF PERSONNEL AND RESPONSIBILITIES			
Position	Position Filled?	Nominated Personnel	Company
Incident Commander			
Well Control Team Leader			

# Site Safety Plan

(ICS-208)

<b>Safety Officer</b>						
<b>Environmental</b>						
<b>PIO</b>						
<b>Federal Agency</b>						
<b>State Agency Rep.</b>						
<b>Security</b>	<b>Y</b>	<b>210-384-5000</b>	<b>LEG EOC</b>			
<b>Primary Contractors</b>						
<b>SITE ACCESS CONTROL &amp; SECURITY</b>						
<p>Site Control:</p> <p>The well site has been divided into three work zone classifications <b>Hot</b>/Hazard Zone, <b>Warm</b>/Restricted Zone, and <b>Cold</b>/Safe Zone.</p>						
<b>PARAMETERS</b>						
<b>Hot Zone</b>	<b>Warm Zone</b>	<b>Cold/Safe Zone</b>				
>10% LEL	Falls between the Hot and Cold Zones	0% LEL				
>10 ppm H <sub>2</sub> S		<5 ppm H <sub>2</sub> S				
<19.5% O <sub>2</sub>		<85 db				
>3Kw/M <sup>2</sup>		<1.6 Kw/M <sup>2</sup> Heat Load				
Gas Cloud		Two access points				
	<b>Work Zone Boundary Description</b>	<b>Personal Protective Equipment (PPE) Required for Entry</b>				

# Site Safety Plan

(ICS-208)

<b>Hot Zone</b>		<p>Standard (level D). FRC and FR hood (NFPA 70E) is required.</p> <p>If H<sub>2</sub>S or an Oxygen deficient environment is detected, supplied air respiratory protective equipment will be utilized by trained &amp; authorized personnel (29 CFR 1910.134).</p>																												
<b>Warm Zone</b>		<p>Standard (level D). FRC's are required as per client's policy. Hood not required.</p>																												
<b>Cold Zone</b>		<p>PPE same as the warm zone or as stipulated by company policy.</p>																												
<p>Photo of Hot Zone:</p>																														
<p><b>SPECIAL HAZARDS ON LOCATION</b></p>																														
<p><b>Check All Applicable:</b></p> <table border="0"> <tr> <td><input type="checkbox"/> Flammable Atmosphere</td> <td><input type="checkbox"/> O<sub>2</sub> Deficient / Enriched</td> </tr> <tr> <td><input type="checkbox"/> Working at Heights</td> <td><input type="checkbox"/> Cratering</td> </tr> <tr> <td><input type="checkbox"/> Ignition Sources</td> <td><input type="checkbox"/> Boat / Over-Water Work</td> </tr> <tr> <td><input type="checkbox"/> Toxic Vapors</td> <td><input type="checkbox"/> Wellhead / Ingress / Egress</td> </tr> <tr> <td><input type="checkbox"/> Site Topography</td> <td><input type="checkbox"/> Confined Space Entry</td> </tr> <tr> <td><input type="checkbox"/> Crane Operations</td> <td><input type="checkbox"/> Forklifts</td> </tr> <tr> <td><input type="checkbox"/> Traffic Flow</td> <td><input type="checkbox"/> Weather Evacuation</td> </tr> <tr> <td><input type="checkbox"/> Trenching</td> <td><input type="checkbox"/> Trips &amp; Fall Hazards</td> </tr> <tr> <td><input type="checkbox"/> Uneven Work Surfaces</td> <td><input type="checkbox"/> Slippery Ground &amp; Surfaces</td> </tr> <tr> <td><input type="checkbox"/> High Noise Area (&gt;90db)</td> <td><input type="checkbox"/> High Pressure Piping</td> </tr> <tr> <td><input type="checkbox"/> Respiratory irritants</td> <td><input type="checkbox"/> Heavy Earth Moving Equipment</td> </tr> <tr> <td><input type="checkbox"/> Reptiles and Insects</td> <td><input type="checkbox"/> Thermal / Environmental Concerns</td> </tr> <tr> <td><input type="checkbox"/> Security</td> <td><input type="checkbox"/> Heavy Lifting</td> </tr> <tr> <td><input type="checkbox"/> Overhead Hazards</td> <td><input type="checkbox"/> Pinch Points</td> </tr> </table>			<input type="checkbox"/> Flammable Atmosphere	<input type="checkbox"/> O <sub>2</sub> Deficient / Enriched	<input type="checkbox"/> Working at Heights	<input type="checkbox"/> Cratering	<input type="checkbox"/> Ignition Sources	<input type="checkbox"/> Boat / Over-Water Work	<input type="checkbox"/> Toxic Vapors	<input type="checkbox"/> Wellhead / Ingress / Egress	<input type="checkbox"/> Site Topography	<input type="checkbox"/> Confined Space Entry	<input type="checkbox"/> Crane Operations	<input type="checkbox"/> Forklifts	<input type="checkbox"/> Traffic Flow	<input type="checkbox"/> Weather Evacuation	<input type="checkbox"/> Trenching	<input type="checkbox"/> Trips & Fall Hazards	<input type="checkbox"/> Uneven Work Surfaces	<input type="checkbox"/> Slippery Ground & Surfaces	<input type="checkbox"/> High Noise Area (>90db)	<input type="checkbox"/> High Pressure Piping	<input type="checkbox"/> Respiratory irritants	<input type="checkbox"/> Heavy Earth Moving Equipment	<input type="checkbox"/> Reptiles and Insects	<input type="checkbox"/> Thermal / Environmental Concerns	<input type="checkbox"/> Security	<input type="checkbox"/> Heavy Lifting	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Pinch Points
<input type="checkbox"/> Flammable Atmosphere	<input type="checkbox"/> O <sub>2</sub> Deficient / Enriched																													
<input type="checkbox"/> Working at Heights	<input type="checkbox"/> Cratering																													
<input type="checkbox"/> Ignition Sources	<input type="checkbox"/> Boat / Over-Water Work																													
<input type="checkbox"/> Toxic Vapors	<input type="checkbox"/> Wellhead / Ingress / Egress																													
<input type="checkbox"/> Site Topography	<input type="checkbox"/> Confined Space Entry																													
<input type="checkbox"/> Crane Operations	<input type="checkbox"/> Forklifts																													
<input type="checkbox"/> Traffic Flow	<input type="checkbox"/> Weather Evacuation																													
<input type="checkbox"/> Trenching	<input type="checkbox"/> Trips & Fall Hazards																													
<input type="checkbox"/> Uneven Work Surfaces	<input type="checkbox"/> Slippery Ground & Surfaces																													
<input type="checkbox"/> High Noise Area (>90db)	<input type="checkbox"/> High Pressure Piping																													
<input type="checkbox"/> Respiratory irritants	<input type="checkbox"/> Heavy Earth Moving Equipment																													
<input type="checkbox"/> Reptiles and Insects	<input type="checkbox"/> Thermal / Environmental Concerns																													
<input type="checkbox"/> Security	<input type="checkbox"/> Heavy Lifting																													
<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Pinch Points																													
<b>Control Measures:</b>	<table border="0"> <tr> <td><input type="checkbox"/> Energy Isolation</td> <td><input type="checkbox"/> Flagman / Security</td> </tr> <tr> <td><input type="checkbox"/> Ventilation</td> <td><input type="checkbox"/> Permit to Work</td> </tr> </table>		<input type="checkbox"/> Energy Isolation	<input type="checkbox"/> Flagman / Security	<input type="checkbox"/> Ventilation	<input type="checkbox"/> Permit to Work																								
<input type="checkbox"/> Energy Isolation	<input type="checkbox"/> Flagman / Security																													
<input type="checkbox"/> Ventilation	<input type="checkbox"/> Permit to Work																													
Monitoring O <sub>2</sub> , LEL, H <sub>2</sub> S, CO, Benzene, VOC's	<b>Completed By:</b>																													

# Site Safety Plan

(ICS-208)

	<p><b><u>All personnel conducting job tasks in the Hot Zone will be equipped with 4 gas monitors to ensure safe LEL for operations</u></b></p>			
<p><b>PPE</b></p>	<table> <tr> <td> <input type="checkbox"/> Respiratory Protection  <input type="checkbox"/> Draeger PA 80            30 min SCBA's  <input type="checkbox"/> Eye Protection  <input type="checkbox"/> Hearing Protection  <input type="checkbox"/> Face Shield  <input type="checkbox"/> Chemical Suits  <input type="checkbox"/> Gloves / Hand Protection  <input type="checkbox"/> Hard Hat         </td> <td> <input type="checkbox"/> Safety Toe (Steel or Composite) Boots    <input type="checkbox"/> Safety Harness / Lanyard  <input type="checkbox"/> Life Vest (PFD)  <input type="checkbox"/> Proximity Suits  <input type="checkbox"/> Elevated Work Platform  <input type="checkbox"/> FRC Garments  <input type="checkbox"/> FR hood (NFPA 70E compliant)         </td> </tr> </table>		<input type="checkbox"/> Respiratory Protection <input type="checkbox"/> Draeger PA 80 30 min SCBA's <input type="checkbox"/> Eye Protection <input type="checkbox"/> Hearing Protection <input type="checkbox"/> Face Shield <input type="checkbox"/> Chemical Suits <input type="checkbox"/> Gloves / Hand Protection <input type="checkbox"/> Hard Hat	<input type="checkbox"/> Safety Toe (Steel or Composite) Boots  <input type="checkbox"/> Safety Harness / Lanyard <input type="checkbox"/> Life Vest (PFD) <input type="checkbox"/> Proximity Suits <input type="checkbox"/> Elevated Work Platform <input type="checkbox"/> FRC Garments <input type="checkbox"/> FR hood (NFPA 70E compliant)
<input type="checkbox"/> Respiratory Protection <input type="checkbox"/> Draeger PA 80 30 min SCBA's <input type="checkbox"/> Eye Protection <input type="checkbox"/> Hearing Protection <input type="checkbox"/> Face Shield <input type="checkbox"/> Chemical Suits <input type="checkbox"/> Gloves / Hand Protection <input type="checkbox"/> Hard Hat	<input type="checkbox"/> Safety Toe (Steel or Composite) Boots  <input type="checkbox"/> Safety Harness / Lanyard <input type="checkbox"/> Life Vest (PFD) <input type="checkbox"/> Proximity Suits <input type="checkbox"/> Elevated Work Platform <input type="checkbox"/> FRC Garments <input type="checkbox"/> FR hood (NFPA 70E compliant)			

# Site Safety Plan

(ICS-208)

Hazard Evaluation							
Substance	Work Limit	Action	Personal Protective Equipment (PPE)	Monitors		Hazards	Exposure Limits
				Personal	Area		
<b>Hydrogen Sulfide – H<sub>2</sub>S</b>  <b>READING REQUIRED WHILE APPROACHING WORK AREA</b>	<b>10 ppm</b>	1. Evacuate and reassess 2. Consider igniting 3. Upgrade to SCBA or Airline with Escape pack	At 10 ppm:  SCBA or Airline with escape pack	BW H <sub>2</sub> S detector or combination H <sub>2</sub> S/SO <sub>2</sub> detector	*4 Gas Meter WITH PID	Toxic, loss of sense of smell, flammable, heavier than air	20 ppm OSHA Ceiling
	<b>When burning H<sub>2</sub>S/Crude</b>	1. <b>Start monitoring sulfur dioxide levels</b> - Refer to Sulfur Dioxide below					IDLH: 100 ppm
<b>Sulfur Dioxide – SO<sub>2</sub></b>	<b>5 ppm</b>	1. Evacuate and reassess 2. Limit worker exposure to 4 hours OR  Upgrade to SCBA or Airline with Escape pack	At 5 ppm  SCBA or Airline with escape pack	BW combination H <sub>2</sub> S/SO <sub>2</sub> detector	--	Toxic, pungent odor, does not burn, heavier than air	5 ppm OSHA PEL
	<b>When burning H<sub>2</sub>S/Crude</b>	1. <b>Monitor sulfur dioxide and H<sub>2</sub>S levels</b> 2. At 5 ppm, Evacuate and Reassess					IDLH: 100 ppm
<b>Volatile Organic Compounds</b>					**4 Gas Meter WITH PID set to	As Benzene: Carcinogen,	As Benzene:
	<b>50 ppm</b>	1. Data log VOCs as Benzene 2. Start Benzene Monitoring- Refer to Benzene requirements below 3. Limit worker exposure to 4 hours	• Refer to Benzene below	3M 3520 or Assay Organic Vapor			

# Site Safety Plan

(ICS-208)

Hazard Evaluation							
Substance	Work Limit	Action	Personal Protective Equipment (PPE)	Monitors		Hazards	Exposure Limits
				Personal	Area		
<b>(VOCs) AS BENZENE</b>  <b>(UNIT MUST BE SET TO READ ALL VOC AS BENZENE)</b>	<b>100 ppm</b>	1. Evacuate and reassess 2. Consider igniting 3. Upgrade to SCBA or Airline with Escape pack 4. Continue data logging VOCs as Benzene	<ul style="list-style-type: none"> <li>Refer to Benzene below</li> </ul>	passive badges for Lab analysis. Collect sample on personnel in hot zone, but not getting wet	measure VOCs	sweet odor, flammable, heavier than air	1 ppm OSHA PEL  5 ppm OSHA STEL  IDLH: 500 ppm
<b>Benzene – C<sub>6</sub>H<sub>6</sub></b>  Using Drager  <b>RK ACMS or UltraRae 3000 with Benzene Separation Tube</b>	<b>1 ppm</b>  <b>2 ppm</b>	1. Measure and document Benzene readings every Hour using Drager CMS Chip OR UltraRae 3000 with Benzene Separation Tube 2. Limit worker exposure to 4 hours  1. Measure and document Benzene readings every Half Hour 2. Limit worker exposure to 2 hours	<ul style="list-style-type: none"> <li>If getting wet: FR Slicker suits over FR Coveralls</li> <li>Nitrile (inner glove) and butyl or leather (outer glove)</li> </ul>	3M 3520 or Assay Organic Vapor passive badges for Lab analysis. Collect sample on personnel	- Drager CMS (Chip Management System) or UltraRae 3000 with Benzene Separation Tube		

# Site Safety Plan

(ICS-208)

Hazard Evaluation							
Substance	Work Limit	Action	Personal Protective Equipment (PPE)	Monitors		Hazards	Exposure Limits
				Personal	Area		
<b>READING REQUIRED WHILE APPROACHING WORK AREA</b>	<b>5 ppm</b>	<ol style="list-style-type: none"> <li>1. Evacuate and reassess</li> <li>2. Upgrade to SCBA or Airline with Escape pack</li> </ol>	At 5 ppm Benzene <ul style="list-style-type: none"> <li>• SCBA or Airline with escape pack</li> <li>• If getting wet: FR Slicker suits over FR Coveralls</li> <li>• Nitrile (inner glove) and butyl or leather (outer glove)</li> </ul>	in hot zone, but not getting wet			
<b>Carbon Monoxide- CO</b>  <b>READING REQUIRED WHILE APPROACHING WORK AREA</b>	<b>30 ppm or more</b>	<ol style="list-style-type: none"> <li>1. Evacuate and reassess</li> <li>2. Consider igniting</li> </ol>	At 50 ppm	4 Gas Meter WITH PID (Example MultiRae with PID)		Toxic (asphyxiant), odorless, flammable, approx. as heavy as air	50 ppm OSHA PEL  IDLH: 1,200 ppm
	<b>50 ppm or more</b>	<ol style="list-style-type: none"> <li>1. Limit worker exposure to 4 hours or</li> <li>2. Upgrade to SCBA or Airline with Escape pack</li> </ol>	SCBA or Airline with escape pack				
<b>LEL &amp; Natural Gas (odorized &amp; not odorized)</b>	<b>10% LEL or more</b>	<ol style="list-style-type: none"> <li>1. Evacuate and reassess</li> <li>2. Consider igniting</li> </ol>	When Oxygen is less than 19.5%	4 Gas Meter WITH PID (Example MultiRae with PID)		Flammable, lighter than air,	none

# Site Safety Plan

(ICS-208)

Hazard Evaluation						
Substance	Work Limit	Action	Personal Protective Equipment (PPE)	Monitors		Hazards
				Personal	Area	
READING REQUIRED WHILE APPROACHING WORK AREA		3. Check that oxygen levels are between 19.5% and 23.5%	SCBA or Airline with escape pack			no odor unless odorized, flammable, asphyxiant
Oxygen  READING REQUIRED WHILE APPROACHING WORK AREA	Less than 19.5%	1. Evacuate and reassess 2. Upgrade to SCBA or Airline with Escape pack	SCBA or Airline with escape pack	4 Gas Meter WITH PID (Example Multirae with PID)		Oxygen deficiency
	Greater than 23.5%	1. Evacuate and reassess 2. If ignitable vapors exist, consider voluntary ignition	No entry unless ignited			Highly Flammable  Extreme heat flux if ignited
						<19.5% IDLH
						--



<b>Explosive Atmosphere</b>	A water fog will be applied while working near the wellhead and during critical operations with prolonged high concentrations of LEL. .
<b>Gas Detection and Monitoring</b>	Due to the combustible and/or toxic concentrations of gas that are likely to accumulate, initial testing and routine monitoring will be conducted to establish and maintain safe boundaries for the work zones and required levels of personal protective equipment (PPE).
<b>Special Concerns / Weather Conditions</b>	<p><b><i>The 30/30 Rule:</i></b></p> <p>Any lightning safety plan should incorporate the 30/30 Rule. This rule states that personnel should seek shelter if the “flash-to-bang” delay (length of time between a lightning flash and its subsequent thunder) is 30 seconds or less, and that they remain under cover until 30 minutes after the final clap of thunder.</p> <p><b><i>How far away is it?</i></b></p> <p>To use the “flash-to-bang” method, count the seconds from the time lightning is sighted to when the clap of thunder is heard. Divide that number by five to obtain how far away (in miles) the lightning is occurring (e.g. 15 seconds / 5 = 3 miles).</p>
<b>ADDITIONAL NOTES</b>	
<b>Drilling Materials</b>	Standard drilling mud and chemicals will be used during the operations and are present at the well site. These materials do not present any abnormal hazard unless ignited. PPE requirements to handle these materials are found in the SDS documents and must be attached to this document.
<b>Heat and Radiation</b>	In the event of fire, heat and radiation produced presents an obvious hazard and ambient temperatures may also present additional heat related health concerns. Personnel working in and around the area must drink sufficient quantities of appropriate fluids to avoid dehydration.
<b>On-Site Work Plans</b>	<p>On-Site work plans (procedures) will be developed for each major task or portion of the project. Work plans will include special safety precautions and/or contingencies to be in place before initiating the task or portion of the project. Major portions of the project are anticipated to include:</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>

SPECIAL SAFETY ITEMS	
<input type="checkbox"/> Work Zone Tapes <input type="checkbox"/> Drinking Water <input type="checkbox"/> Light Station <input type="checkbox"/> Eye Wash Station <input type="checkbox"/> Emergency Shower	<input type="checkbox"/> SDS Sheets <input type="checkbox"/> BLS / ALS Med-Kit <input type="checkbox"/> Tripod <input type="checkbox"/> Decon Station
<b>Required Safety &amp; Rescue Equipment</b>  <b>(On-Site)</b>	
<b>Comments or Special Work Procedures</b>	<b>* Anyone can stop job / task if unsafe</b>  <b>* Report all injuries immediately</b>
COMMUNICATION PROCEDURES	
<b>Radio Communication</b>	Communication via hand portable radio will be the primary method of on-site communication. All personnel entering the Hot Zone or Restricted Zone must be equipped with a hand portable radio with freshly charged batteries. Only radios that have been inspected by the Safety Coordinator for the correct channel frequencies and listed as intrinsically safe for use in hazardous and explosive environments will be permitted on-site.
<b>Emergency Signaling Horn Blasts</b>	<ul style="list-style-type: none"> <li>• <b>3 Intermittent Horn Blasts:</b> All personnel MUST leave the Hot Zone.</li> <li>• <b>Continuous Horn Blast:</b> All personnel evacuate the Hot Zone and Warm Zone. Report directly to the designated Safe Area. All personnel must be accounted for.</li> </ul>
<b>Fixed Line Telephone Communication</b>	NA
<b>Cellular Communication</b>	Cellular phones will only be permitted in the Cold / Safe Zone. All cellular devices must be turned off in the event that explosives are being utilized on-site.
<b>Emergency Signaling Hand Signals</b>	Standard hand signals will be used in the event of radio communication failure. The Team Leader will determine if it is safe to continue with the planned activity while utilizing only hand signals for communication. <ul style="list-style-type: none"> <li>• <b>Hand Gripping Throat:</b> Out of air, cannot breathe.</li> <li>• <b>Grip Partners Wrist or Both Hands Around the Waist:</b> Leave area immediately.</li> <li>• <b>Hands on Top of Head:</b> Need assistance.</li> <li>• <b>Thumbs Up:</b> OK, I'm alright, I understand.</li> <li>• <b>Thumbs Down:</b> No, negative.</li> </ul>
EMERGENCY PROCEDURES	
The Site Safety Officer will be notified immediately for an injury occurring on-site and is responsible for ensuring that the appropriate procedures are followed.	

<b>Injury Inside Hazardous Work Area</b>	The withdrawal signal will be sounded immediately and all personnel in the hazardous area will withdraw and assemble at a safe distance from the hazardous area. The Site Safety Officer will direct the rescue of the injured person. NO RESCUE ATTEMPT SHALL BE MADE WITHOUT AUTHORIZATION FROM THE SITE SAFETY OFFICER. No re-entry will be made following an injury until a complete determination of the cause has been made.	
<b>Fire and/or Explosion</b>	The withdrawal signal will be sounded, and all personnel will proceed to the following designated assembly area:  <b>Cold / Safe Zone</b>	
<b>Personal Protective Equipment Failure</b>	The person who experienced the failure and his buddy / partner will exit the hazardous area until the deficiencies have been corrected and he / she has been checked and found to be safe to return by his / her supervisor or the Site Safety Officer. At no time shall a person be left alone in the hazardous area.	
<b>Other Equipment Failure</b>	If any other equipment fails to operate properly, the Supervisor and the Site Safety Officer shall be notified. They shall determine the effect of the failure on continuing operations. If the failure affects safety at the site, the entire project will be shut down until corrective measures can be taken that do not compromise the safety of anyone.	
<b>In All Situations</b>	When the on-site emergency requires the evacuation of the hazardous area, personnel shall not re-enter until:  <div><div>1.</div><div>The conditions resulting in the evacuation have been corrected.</div></div> <div><div>2.</div><div>The hazards have been re-assessed.</div></div> <div><div>3.</div><div>The Site Safety Plan has been revised to correct for the emergency.</div></div> <div><div>4.</div><div>Site personnel have been briefed on any changes to the Site Safety Plan.</div></div>	
<b>Additional Instructions and Comments</b>	<b>All Hot Zone operations will cease while Federal or State are on-scene conducting investigations.</b>	
<b>EMERGENCY MEDICAL CARE</b>		
<b>On-Site Emergency Care</b>		
<b>Nearest Hospital</b>	Name	Doctors Hospital of Laredo
	Phone Number	956-523-2000
	Address	10700 McPherson Rd.  Laredo, TX 78045
	Distance	

	Drive Time	
<b>Air Ambulance</b>	Phone Number	
	Helicopter	
	Nearest Landing Site	
	Flight Time to Hospital	
<b>Burn Specialist</b>	Name	San Antonio Medical Center (SAMC) Brooke Army Medical Center
	Phone Number	210-916-4141
	Address	3551 Roger Brooke Dr Fort Sam Houston, TX 78234

APPROVALS	
<b>Incident Commander</b>	
<b>Safety Officer</b>	

## **ATTACHMENT D – WELL CONTROL EMERGENCY ACTION PLAN**

---

## Well Control Emergency Action Plan

The procedures specified in this EAP appendix address various well control scenarios ranging from routine operations to situations involving a total loss of well control which necessitates the immediate mobilization of intervention equipment, internal Team Members and external personnel. Drilling, well servicing and production operations all have the capability of having an incident/emergency occurring where well control may be necessary. **Attachment A** of this well control plan provides specific flowchart information for implementing well control during an incident/emergency

Well control requires compliance with a process for responding to and managing the following aspects of the incident/emergency that includes:

- Notifying BU Management, Safety Department and appropriate Team Members within the Incident Command Organization (ICO)<sup>3</sup>.
- Protect on-site Team Members and outside personnel.
- Prevent further damage or injury during mobilization of equipment, Team Members and outside personnel.
- Define the critical information required to determine the appropriate response level and strategies.
- Working with the trained members of the ICO and outside personnel, providing guidelines and management for their roles during the emergency response; and
- Using the First Call, Fire, Medical, Police and Third Party Contact Lists provided in the SOP to notify, mobilize Team Members, outside personnel, equipment, materials and services typically required for implementation of well control procedures.

### ***Well Control Response Levels***

The response levels for well control are for use solely as guidelines and made applicable to LEG operations. It is probable that situations could develop that defy the definition of one of the incident/emergency response levels. These situations will require the use of judgement and experience in order to determine the appropriate response actions.

#### ***Level I Well Control Response***

A level I well control response is an incident event with the potential for impact beyond the control, scope or capabilities of the drilling, well servicing, or production first responders, and requires response from the ICO (**Figure 1**) for handling and coordination. Use of LEG Team Members within the ICO may be limited depending on the event and determined at the time of the incident.

Level I well control incident events involve circumstances not commonly encountered during routine drilling, well servicing or production operations and pose the potential for significant risk to personnel, equipment or the environment. A level I incident event may require specialized well control personnel,

---

<sup>3</sup> ICO – Incident Command Organization

equipment or techniques in order to be resolved safely. Examples of level I incident events include, but are not limited to, the following scenarios:

- Circulation loss.
- Small surface leaks that cannot be easily or safely isolated.
- Loss of production tubing integrity resulting in sustained pressure on production casing >75-80% of casing burst rating. Loss of tubing integrity includes failure of wellhead seals and downhole equipment.
- Loss of production casing integrity resulting in sustained pressure on intermediate casing >25% of casing burst rating. Loss of casing integrity includes failure of wellhead seals.
- Loss of protective casing integrity resulting in sustained pressure on surface casing.

### ***Level II Well Control Response***

During a level II, well control emergency event response activation of the ICO is done by a call from BU Management. BU Management and the LEG Safety Department will activate the EAP and notify the essential Team Members. The Team Member(s) should mobilize to the designated office/location where the ERT will assimilate. The ERT should remain in operation until the situation is resolved or downgraded to a level I incident event. If mobilization of well control specialists/engineers is not necessary, the ICO Team Members should maintain open and frequent communication with a third party well control team. Information related to the emergency event and the results of the event will be conveyed via Microsoft Teams.

Complete documentation from the ERT and members of the ICO (Recorder) will send well control information to the third party well control specialist company along with any other pertinent or related information and will continually update the information to ensure the most expedient mobilization route until the level II emergency event is resolved or downgraded to a level I incident.

### ***Level III Well Control Response***

A level III emergency event presents serious and immediate risks to Team Members, the environment and assets. These situations require the immediate application of specialized techniques and well-developed safety assessment and hazard mitigation programs. Any uncontrolled flow of fluids from the wellbore is a blowout. An underground blowout (UGBO) may not appear to be as serious as a surface blowout. Regardless of the perceived severity of the problem, an UGBO is a serious situation that can lead to high surface pressure, broaching, communication between casing strings, collateral damage to adjacent wells on the pad, or other situations that may eventually result in a surface blowout or severe environmental damage. These situations can be potentially dangerous and very costly and usually require well control expertise and equipment to resolve. Team Members should evaluate the seriousness and contact appropriate third party well control for support if necessary.

Examples of level III emergency events include, but are not limited to, the following scenarios:

- Surface blowout (drill-pipe, BOP, production tree, broach, etc., with or without fire);
- Underground blowout with insufficient casing set so that the well cannot be brought under control by pumping heavy mud simultaneously down the drill string and annulus using rig pumps; and
- Other situations that constitute a clear and present danger to personnel, environment or equipment that cannot be resolved via conventional means.

Level III emergency events will warrant the immediate activation of the EAP through LEG EOC, mobilization of well control specialists/engineers and other specialist personnel and equipment. The ERT should contact a third party well control company immediately upon the determination of a level III event.

**Specific documents pertaining to Well Control are kept within the Drilling Department's Well Control Standard.**



## **ATTACHMENT E - WELL INTERVENTION ACTION PLANS**

---

**Well Kill Decision Tree-Level I and Level II**

## Well Kill Decision Tree Level I and Level II

