COTERRA

# Integrated Contingency Plan

## Marcellus Business Unit (MBU)

***1.*** Site Specific Information
***2.*** Emergency Response Plan
***3.*** Preparedness, Prevention and Contingency (PPC) Plan

COTERRA

# Coterra Energy Inc. Marcellus Business Unit (MBU) Integrated Contingency Plan

## Part 1 – Site Specific Information

- Facility name and location information
- Site maps and drawings
- Risks and Hazards within ½ mile of site

## Part 2 – Coterra MBU Emergency Response Plan

- Emergency Contacts
- Maintenance and Review
- Incident Levels
- Response Procedures
- Notifications & Contact information
- Incident Management System (ICS)
- Media Relations
- Training & Exercise Procedures
- Forms
- Well Control Emergencies

## Part 3 – Coterra MBU Preparedness, Prevention and Contingency (PPC) Plan

- Descriptions of Facility and Activities
- Material and Waste Inventory
- Spill Leak Prevention & Response
- Containment Methods & Potential Release Scenarios
- Material Compatibility
- Inspection & Monitoring Program
- Preventative Maintenance & Housekeeping
- Recycling & Waste Disposal Methods

COTERRA

# Site Specific Emergency Response Plan (ERP)

## Hull, R. Pad 1

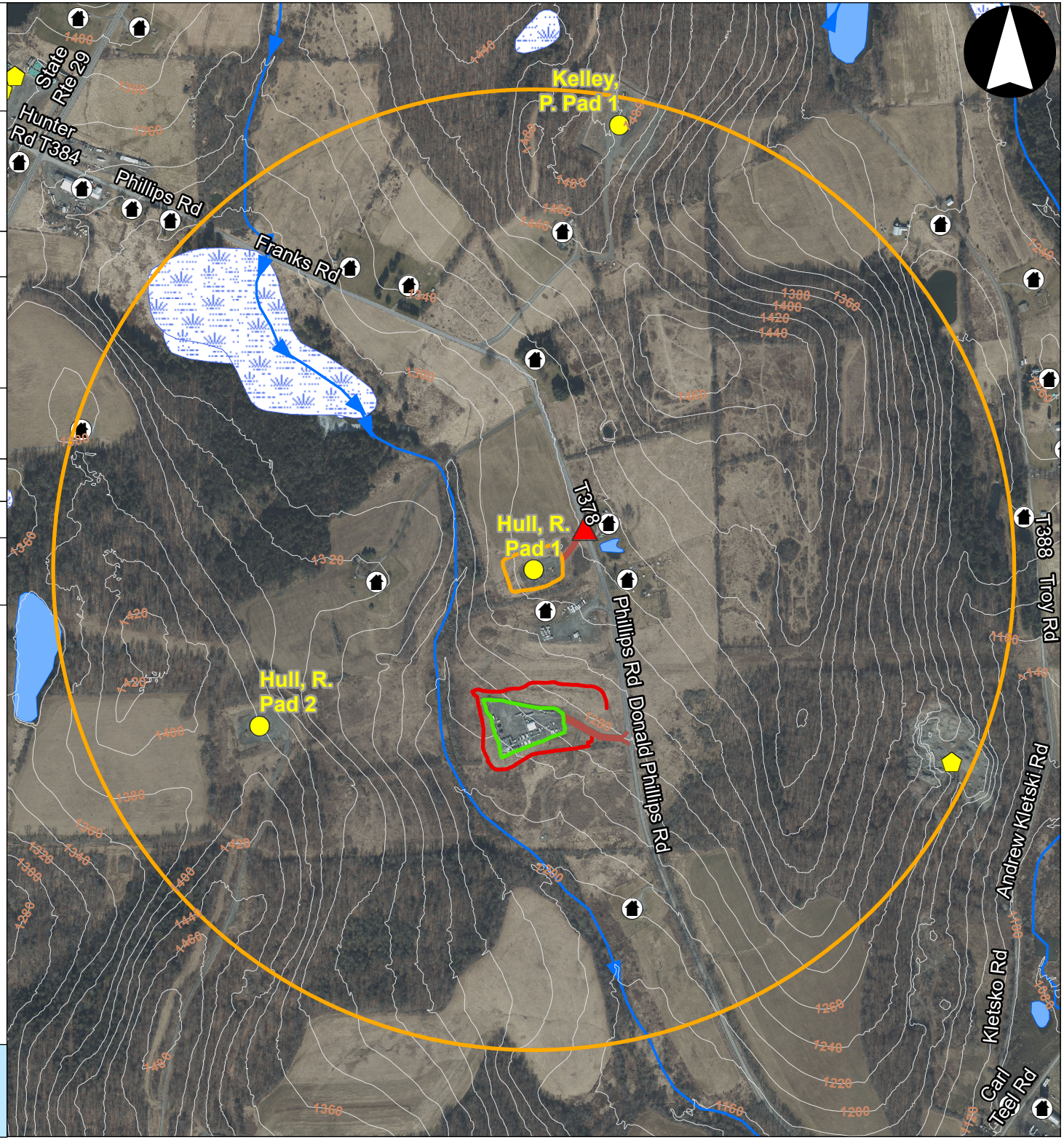
**24 Hour Company Contact Number**
**1-855-641-0300**
**Marcellus-BU EHS On-Call Number**
**570-737-4260**

**Address: 1197 Phillips Rd., Springville, PA 18844**

**Springville Township**

**Susquehanna County**

**Access Road Entrance**
**Lat:41.712539 Long:-75.899797**




- Commercial
- Residential
- Half-Mile Buffer
- 911 Access Road

**Facility Type**
- LOD
- Service Road
- Tank Pad
- Well Pad
- Well Pad

**Water Resources (NHD)**
- Lake/Pond
- Swamp/Marsh
- Stream/River

**Wetlands (NWI)**
- Wetlands

0 500 1,000 1,500 2,000 Feet

Information depicted on this map is the sole property of Coterra Energy. Reproduction or reuse of any portion of this map is strictly prohibited absent the written consent of Coterra Energy. This information is for reference purposes only. Coterra Energy assumes the data sources utilized to create this map are accurate and correct but does not warrant the accuracy thereof. Coterra Energy is not responsible for any misuse or misrepresentation of this information.

# Hull, R. Pad 1

COTERRA

0 25 50 75 Feet

Asset

- Glycol Tank
- Methonal Tank
- Production Tank
- Vent Tank
- GPU
- Emergency Shutdown Device
- Well Head

COTERRA

# Marcellus Shale Emergency Response Plan

| Coterra Energy Notification Quick List | | | |
|---|---|---|---|
| Type* | Notifications | Contact Number | Action |
| **Internal Notifications** | | | |
| R | Immediate Supervisor | | |
| R | EHS Department, Marcellus-BU EHS On-Call | 570-737-4260 | Continue Notification Process |
| **Spill Response Organizations (SRO)** | | | |
| A | Diaz Disposal | 570-289-8760 | Call, as incident need dictates, to activate SROs |
| A | RLE Enterprises | 570-842-4051<br>570-840-2709 | Call, as incident need dictates, to activate SROs |
| A | GasSearch Drilling Services Corporation | 570-278-7118 | Call, as incident need dictates, to activate SROs |
| A | Resource Environmental Management | 570-406-1459<br>570-278-8392 | Call, as incident need dictates, to activate SROs |
| A | Wild Well Control - Pennsylvania | 281-784-4700 | Call, as incident need dictates, to activate SROs |
| **Oil Spill Response Organizations (OSRO)** | | | |
| A | EnviroServe | 800-488-0910 | Call, as incident need dictates, to activate OSRO |
| **External Notifications** | | | |
| A | National Response Center (NRC) - HQ | 800-424-8802 | - Oil Discharge<br>- Release over RQ of Hazardous Substance<br>- Sheen on surface of water or shoreline<br>- Notify as soon as practical |
| C | Environmental Protection Agency - EPA Region 3 | 800-438-2474<br>215-814-3255 | Initial Notification made with call to NRC |
| A | Occupational Safety & Health Administration (OSHA) - HQ | 800-321-6742 | Any accident involving an employee in which a serious injury, illness, or death occurs |


© The Response Group

| | | | |
|---|---|---|---|
| C | DOT Pipeline and Hazardous Material Safety Administration | 202-366-4433 | Initial Notification made with call to NRC |
| C | Chemical Safety and Hazard Investigation Board | 202-261-7600 | Initial notification made with call to NRC |
| A | Pennsylvania Department of Environmental Protection-Bureau of Oil & Gas Management | 570-826-2511 | Notify within 2 hours for a). A release causing or threatening pollution of the waters of the Commonwealth or b). A release of 5 gallons or more not completely contained by secondary containment. |
| A | Pennsylvania Department of Environmental Protection-Bureau of Waste Management | 800-541-2050 | In the event of a discharge or any spill of waste generated or processed in a quantity capable of reaching surface water, the owner/operator shall immediately notify the PADEP. |
| A | Pennsylvania Fish and Boat Commission | 570-477-5717 | Release that causes or is imminent to cause pollution of waters of the Commonwealth and/or Waters of the United States |
| C | Pennsylvania Emergency Management Agency | 800-424-7362<br>717-651-2001 | Any hazardous materials release which is above the Reportable Quantity (RQ) established by the EPA's List of Lists |

*R – Required Notification
C – Courtesy Notification
A – As needed for type of incident


© The Response Group

# Table of Contents

**Section 1 Introduction ..... 1**
1.1 Owner & Operator ..... 1
1.2 Purpose ..... 1
1.3 Scope ..... 2
1.4 Objectives ..... 2
1.5 Plan Availability ..... 2
1.6 Summary of the Risks & Hazards to the Public within a Half-Mile of the Well Site 3
**Section 2 ERP Maintenance & Review ..... 1**
2.1 Management of Change ..... 1
2.2 Plan Administration ..... 1
2.3 Plan Review ..... 2
2.4 Record of Revisions ..... 3
2.5 Distribution ..... 4
**Section 3 Incident Levels ..... 1**
3.1 Level 1 Incidents ..... 1
3.2 Level 2 Incidents ..... 2
3.3 Level 3 Incidents ..... 2
**Section 4 Response Procedures ..... 1**
4.1 Response Procedures ..... 1
4.2 Incident Detection ..... 2
4.3 General Employee Response to an Emergency Situation / Incident ..... 3
4.4 Fire and Explosion ..... 6
4.5 Injury / Medical / Rescue ..... 9
4.6 Spill or Release ..... 10
4.7 Security Incidents ..... 16
4.8 Traffic Control ..... 18
4.9 Severe Weather ..... 19
4.10 Response Termination ..... 22
4.11 Sustained Actions and Follow-up ..... 24
4.12 Emergency Response Equipment ..... 25
**Section 5 Notifications & Contact Information ..... 1**
5.1 Notification Quick List Notifications ..... 1


© *The Response Group*

5.2 Notification Flowcharts ....3
5.2.2 Spill Notification Flowchart ....4
5.3 Emergency Management Contacts ....5
5.4 Incident Management Team ....7
5.5 Coterra Offices ....11
5.6 Response Contractors ....18
5.7 Notifications ....20
**Section 6 Incident Management System ....1**
6.1 Incident Command System Structure ....1
6.2 ICS Planning Cycle ....5
6.3 Coterra Incident Management Team Organization ....8
6.4 Common Responsibilities ....10
6.5 Roles and Responsibilities Checklist ....11
**Section 7 Media Relations ....1**
7.1 Media Contacts ....1
7.2 Media Policy ....1
7.3 Example - Emergency Communication – For External Affairs Department Only 3
**Section 8 Operational Maps ....1**
8.1 Marcellus BU Locations ....1
8.2 Marcellus BU NEPA Locations ....2
8.3 Marcellus BU NEPA - Facility Locations ....3
**Section 9 Training & Exercise ....1**
9.1 Training ....1
9.2 Exercise/Drills ....3
**Section 10 Forms ....1**
10.1 Bomb Threat Checklist ....1
10.2 Initial ICS Forms – Reactive Phase ....2
**Appendix A Well Control ....1**
A.1 Well Control Notifications ....1
A.2 Response Team Responsibilities ....2
A.3 Responsibilities of Others ....4
A.4 General Well Control Procedures ....8
**Appendix B - Glossary / Acronyms ....9**

# Section 1 Introduction

## 1.1 Owner & Operator

This Emergency Response Plan (ERP) is developed for:

| Owner/Operator & Address | Coterra Energy - Marcellus Business Unit<br>2000 Park Lane Suite 300 |
|---|---|

Coterra Energy (Coterra) - Marcellus Business Unit (MBU) is an independent oil and gas exploration and production company performing exploration and production activities for natural gas in the Northeast region of Pennsylvania.

## 1.2 Purpose

This ERP is designed to provide Coterra employees, contractors, and designated Incident Management Team (IMT) members with the information necessary to respond to incidents in a safe, rapid, effective, and efficient manner. For purposes of this ERP, incidents are defined as events that happen within a facility or outside the facility (including well sites) that create unacceptable impacts on people, the environment or property, and require emergency response operations. The ERP's primary goal is to help Coterra prevent, as far as practical, any injury or loss of life, damage to property, wildlife, or the environment. The health and safety of the public, Coterra employees, and its contractors will always be the primary objective of this ERP.

This ERP has been developed pursuant to the Act of February 2, 2012, P.L. 67, Act 9 (Act 9) and to satisfy the requirements of 25 Pa. Code § 78a.55 subsection (f). This plan has been developed utilizing the concepts of the National Incident Management System (NIMS) and the Integrated Contingency Plan (ICP) to the maximum extent practicable, addressing the key elements described in Section 78a.55(f)(5). For purposes of this plan, the term "well site" refers to any site associated with oil and gas exploration, production, or support operations.

This plan includes emergency response actions for the following stages of operations at the well sites:

| Well Site Operations | |
|---|---|
| ✓ | Preparation of the access road and well site |
| ✓ | Drilling of the well |
| ✓ | Hydraulic fracturing and stimulation of the well |
| ✓ | Production |
| ✓ | Fluid Storage |
| ✓ | Workover activities |
| ✓ | Well site restoration |
| ✓ | Plugging of the well |


© The Response Group

Detailed information for each well site will be included on the Emergency Response Plan - Site Specific Information Sheet (Site Specific Plan) identifying the potential risks and hazards to the public and other receptors within ½-mile of the well site. Both the Site-Specific Plan and the Master Emergency Response Plan (Master Plan) and will be maintained at each well site during site development, gas well drilling, completions (hydraulic fracturing) operations, production of the well, fluid storage operations, workover activities, well site restoration and plugging of the well.

## 1.3 Scope

This ERP applies to emergency response operations carried out by Coterra and contractors at Coterra facilities. This ERP applies to all incidents that result from Coterra operations.

IMT personnel require a variety of 'tools' to carry out their responsibilities. Some of these tools are included in this ERP. However, most tools reside outside this ERP and may have to be accessed, along with this ERP, at the time of an incident.

Although this ERP contains procedures applicable to most foreseeable incidents, actual conditions will dictate whether deviations from the ERP are appropriate.

## 1.4 Objectives

| Plan Objectives | |
|---|---|
| ✓ | Serve as the basis for an organized action plan in dealing with emergencies. |
| ✓ | Spell out responsibility, priority, and importance in responding to an emergency. |
| ✓ | Provide information regarding the handling of incidents and identify the organizations that are involved. |
| ✓ | Identify personnel and agencies that must be notified. |

## 1.5 Plan Availability

The Master Plan as well as Site Specific Plans will be available at the well sites during site development, gas well drilling, completions operations, production of the well, site restoration and plugging of the well. The Site-Specific Plan and a copy of the Master Plan will be made available at the well site electronically and/or will be maintained in the mailbox, drawing tube, or other storage device in the vicinity of the 911 sign and other signage identifying the well site. Electronic copies of the Master and Site-Specific ERPs are maintained on Coterra's server.

The Master Plan and Site-Specific Plans will be submitted to the following external parties (note that submittal of the plans via the Pennsylvania Department of Environmental Protection [PADEP] Oil & Gas Electronic Reporting [OGRE] web interface satisfies all the below agencies):

| External Agencies Included in OGRE Submission | |
|---|---|
| ✓ | Pennsylvania Emergency Management Agency (PEMA) |
| ✓ | PADEP Regional Office |
| ✓ | County Emergency Management |
| ✓ | The Public Safety Answering Point (County 911) |

### 1.6 Summary of the Risks & Hazards to the Public within a Half-Mile of the Well Site

Coterra well sites are generally located in rural/remote locations therefore the risks and hazards to the public are reduced. If a well site is in an area where risks and hazards may have an increased potential to exist, this will be addressed in the Site-Specific Plan.

For natural gas well sites, the possibility of loss of well control represents the greatest emergency risk. In the event of a large uncontrolled release of natural gas into the atmosphere, it may be necessary to evacuate downwind for at least a ½ mile. As well as being extremely flammable, high concentrations of natural gas can displace available oxygen from the air which may cause dizziness or asphyxiation without warning.


© The Response Group

# Section 2 ERP Maintenance & Review

## 2.1 Management of Change

This section describes the Management of Change (MOC) procedure that is followed to make changes to this ERP.

The MOC Coordinator is the Coterra MBU EHS Department.

Individuals suggesting changes must submit requested changes in writing to the MOC Coordinator and include the following information:

| Recommended Change Required Information | |
|---|---|
| ✓ | Name of person submitting the change(s) and position |
| ✓ | The recommended change(s) |
| ✓ | The reason for the change(s) |

Strategic changes are defined as those that result in a change in:

| Strategic Changes | |
|---|---|
| ✓ | Organizational Changes |
| ✓ | Procedure Modifications |
| ✓ | Change in Commodities Transported |
| ✓ | Regulatory Mandates |
| ✓ | Asset Acquisitions |

Revisions are documented in **Section 2.4** Record of Revisions in this ERP.

## 2.2 Plan Administration

The EHS Department is responsible for the overall administration of the Coterra ERP and shall include ensuring that this ERP contains the necessary information to effectively support a Coterra response.


© *The Response Group*

## 2.3 Plan Review

This ERP will be reviewed annually by the EHS Department. Any revisions made to the ERP will be listed on the Record of Revisions table in Section 2.4.

Annually, Coterra will submit updates or indicate that no updates are required for the plan within the review period to required agencies in **Section 1.5** via OGRE, no later than March 1st of each year.

| | | |
|---|---|---|
| **Primary Contacts** | John Smelko | 412-249-3854<br>412-613-7642 |
| **ERP Review** | This ERP will be reviewed at a minimum of once per year, and follow the MOC procedure listed in **Section 2.1**, to ensure that it is current regarding personnel changes, contact information, contractor and available equipment changes, and other relevant information as required. | |
| **Significant Updates** | ERP revisions should be made if:<br>A. Changes occur which will impact response capabilities;<br>B. Any change occurs with regard to primary response personnel listed on the response team; or<br>C. Any change occurs with regard to the name or capabilities of the primary response contractors;<br>D. Regulatory changes/updates;<br>E. If the plan fails in the event of an emergency/incident. | |
| **Documentation** | All revisions will be recorded on the Record of Revisions table in **Section 2.4**. | |
| **ERP Submittal to Agencies** | Coterra will electronically submit annual updates or indicate that no updates are required for the plan within the review period to the required agencies, no later than March 1st of each year. | |

## 2.4 Record of Revisions

| Date | Section | Revision Made by | Description |
|---|---|---|---|
| 1/4/2022 | Section 1 | Pam Fernley-Granoien | New Plan Implementation for all Sections/Appendices |
| 3/1/2022 | Section 1 | Pam Fernley-Granoien | Updates per client's comments. |
| 3/26/2024 | Section 2 | Nikki Smith | Updates per client's comments |
| 5/1/2024 | Section 5 | Angie Harakal | Updated for personnel changes |


© The Response Group

## 2.5 Distribution

The controlled and most recent version of this ERP shall be maintained by adherence to the current version number.

Electronic copies of this ERP is maintained on the Coterra server and the Coterra MBU GIS Portal - Emergency Response Web App Map. These plans may also be made available at the well site via electronic access at the well site via QR code or similar.

The Master Plan and Site Specific Plans will be submitted to the following external parties (note that submittal of the plans via the PADEP Oil & Gas Electronic Reporting (OGRE) web interface satisfies all of the below agencies):

- Pennsylvania Emergency Management Agency (PEMA)
- PADEP Regional Office
- County Emergency Management
- The Public Safety Answering Point (Susquehanna County 911)


© The Response Group

# Section 3 Incident Levels

To properly respond to any emergency, incidents should be classified into one of three levels. The incident level is determined by the complexity of the incident, the risks to Coterra personnel and the public, and the impact on the environment. These level classifications will be used only to communicate to Coterra personnel, they are not meant for external communication.

The focus of this guidance presented in this section is on the organization, functions, roles, and responsibilities associated with IMT's developed to respond to emergencies.

| Response Levels | |
|---|---|
| **Level** | **Ranking** |
| **1** | **Lowest** |
| **2** | **Intermediate** |
| **3** | **Highest** |

## 3.1 Level 1 Incidents

These incidents are those that can be effectively managed within the District without activating the Incident Management Team.

| | | |
|---|---|---|
| **LEVEL 1** | ✓ | An incident without recordable injuries (employee or contractor), public involvement or media attention. |
| | ✓ | Spills that are not agency recordable. |
| | ✓ | Minor vehicle incident |
| | ✓ | Release/Spill that is that is not reportable to the local, state, or federal government agencies and cause no environmental impact. |
| | ✓ | Property damage less than $100,000. |


© The Response Group

### 3.2 Level 2 Incidents

These incidents are those that require notification to the regional level management. Additional corporate notification will be determined by the nature of the incident. Activate Incident Management Teams as appropriate.

| | | |
|---|---|---|
| LEVEL 2 | ✓ | Recordable or serious injury to any person. (employee and/or contractor) |
| | ✓ | Vehicle or other type of incident that may expose Coterra to substantial liability, including fines and penalties. |
| | ✓ | Spills that are agency reportable, or releases, explosions, fires, or other incidents that are required to be reported to any government agency. |
| | ✓ | Property damage from $100,000 to $250,000. |
| | ✓ | Event that involves media attention and impacts the public. |
| | ✓ | Incident caused by a Severe Weather Event. |

### 3.3 Level 3 Incidents

These incidents are those which require notification to Corporate level management. Incident Management Teams may be activated depending on the nature of the incident.

| | | |
|---|---|---|
| LEVEL 3 | ✓ | Death or injury to any person which has a substantial risk of permanent disability or impairment. |
| | ✓ | Major spills, toxic gas releases, or other significant environmental damage. |
| | ✓ | Loss of Well Control. |
| | ✓ | Fires not immediately controlled and extinguished. |
| | ✓ | Natural Disasters / Emergency Declarations. |
| | ✓ | Property damage greater than $250,000. |
| | ✓ | Incidents that have potential for local, national, and international media coverage. |
| | ✓ | Incidents that could significantly impact the company's cash flow and/or financial performance. |


© The Response Group

# Section 4 Response Procedures

## 4.1 Response Procedures

The purpose of this section is to identify necessary response checklist/procedures to follow based on the type of incident that could occur at Coterra locations. The checklists below are developed to allow the IMT the ability to make sound decisions during the initial response of an incident.

In the event that external emergency responders are required, Coterra personnel shall immediately contact 911. Under the ICS, external emergency responders will assume the role of Incident Commander upon arrival.

In all cases, Coterra personnel shall not perform duties/functions in which they have not been trained to perform. Coterra personnel shall not perform response efforts that may put themselves or others in a situation that threatens human health and safety.

| Response Procedures | |
|---|---|
| Subsection | Incident Type |
| 4.2 | Incident Detection |
| 4.3 | General Employee Response to an Emergency Situation / Incident<br>• **All Personnel and Contractors**<br>• **First On-Scene**<br>• **Field Supervisor / Foreman / Well Site Consultant**<br>• **EHS Department** |
| 4.4 | Fire and Explosion<br>• **General Firefighting**<br>• **Natural Gas Fire**<br>• **Flammable Liquid Fire**<br>• **Explosions** |
| 4.5 | Injury / Medical / Rescue |


© The Response Group

| Response Procedures | |
|---|---|
| Subsection | Incident Type |
| 4.6 | Spill or Release<br>• **Spill Detection**<br>• **Initial Response**<br>• **$H_2S$ Release**<br>• **Carbon Dioxide Release**<br>• **Hazardous / Flammable Chemicals** |
| 4.7 | Security Incidents<br>• **Bomb Threats**<br>• **Suspicious Package**<br>• **Public Disturbance / Protest** |
| 4.8 | Traffic Control |
| 4.9 | Severe Weather<br>• **Severe Flooding**<br>• **Tornado**<br>• **Winter Storm Warning**<br>• **Hurricanes** |
| 4.10 | Response Termination<br>• **Debriefing the Incident**<br>• **Post-Incident Analysis**<br>• **Critiquing the Incident** |
| 4.11 | Sustained Actions and Follow-up |
| 4.12 | Emergency Response Equipment<br>Fire Suppression Equipment<br>Spill Control Equipment |

## 4.2 Incident Detection

In the event of an incident at a facility, immediate response and reporting is required by both Coterra personnel and contractors. Applicable incident reporting thresholds are included in **Section 5** of this ERP.


© *The Response Group*

## 4.3 General Employee Response to an Emergency Situation / Incident

### 4.3.1 All Personnel and Contractors

| All Personnel and Contractors | |
|---|---|
| ***Safety is of the utmost priority.*** | |
| ✓ | Always think before responding. |
| ✓ | Never rush into the scene of an incident. |
| ✓ | Always assess the situation first and know the hazards. |
| ✓ | Never perform any actions that may put your safety at risk or the safety of others. Personnel should not perform response efforts in which they have not been trained to perform. |


© The Response Group

### 4.3.2 First On-Scene

| Initial Response to an Emergency Situation / Incident Checklist | |
|---|---|
| The first person who responds to the scene of an emergency should take the following action: | |
| ✓ | Move to a safe location if your personal safety may be in jeopardy. |
| ✓ | Never jeopardize your safety or that of another individual. |
| ✓ | Survey the scene, stay calm, park your vehicle away from the scene of the emergency, and turn off the engine. |
| ✓ | If there is a reasonable belief that a person needs emergency medical treatment, dial 911 immediately. |
| ✓ | Contact the appropriate Coterra personnel included in **Section 5.3** of this ERP. Make sure that you speak to a person and never just leave a message. |
| ✓ | If flammable or explosive material has been released, secure all ignition sources including cellular phones and other communication devices. |
| ✓ | If safe, take prompt action to eliminate any dangers. |
| ✓ | If safe, and properly trained, provide medical aid for any injured personnel. |
| ✓ | If necessary, evacuate everyone from the danger area to a safe location or to an upwind location. |
| ✓ | Conduct head count of all site personnel. Identify the names and last known locations of anyone not accounted for and provide that information to the official in charge. |
| ✓ | Secure the location, if safe to do so, block the road leading to the site to control access. Once emergency responders arrive, they can assist in monitoring the entrance and securing the location. |
| ✓ | Promptly decide:<br>• Whether or not the incident can be readily brought under control and if immediate action can be taken. **Always use the correct PPE.**<br>• If there is a spill and you are qualified to do so, deploy boom and absorbent material if available. Build containment areas to prevent contamination and potential pollution of the environment. |
| ✓ | Contact an approved/qualified spill response contractor if product has been released or discharged. |
| ✓ | For media inquiries, refer to **Section 7** of this ERP. |


© The Response Group

### 4.3.3 Field Supervisor / Foreman / Well Site Consultant

| Field Supervisor / Foreman / Well Site Consultant | |
|---|---|
| ✓ | Upon learning of the emergency, determine the seriousness of the emergency and which backup personnel and/or equipment may be required. |
| ✓ | Ensure entrance to the site has been secured. |
| ✓ | Establish direct contact with site personnel and emergency responders. |
| ✓ | Inform emergency responders of any potentially dangerous situations (e.g., H2S, toxic chemicals, SDS, etc.). Do not interfere with the work of any government emergency responders or law enforcement personnel. |
| ✓ | Contact your Supervisor/Manager and EHS Department and relay pertinent information. |
| ✓ | Assist the EHS Department with the investigation of the incident. |
| ✓ | Ensure that you always speak to a responsible person and never just leave a message. |

### 4.3.4 EHS Department

| Superintendent | |
|---|---|
| ✓ | Coordinate response efforts with Coterra personnel and approved/qualified spill response contractor. |
| ✓ | Notify the appropriate Federal, State and Local agencies. Refer to Federal and State reporting requirements located in **Section 5** of this ERP. |
| ✓ | For media inquiries, refer to **Section 7** of this ERP. |
| ✓ | Relay information between management and/or governmental agencies on actions taken. |
| ✓ | Cooperate with the government agencies on site and, if safe to do so, assign tasks to available Coterra personnel and/or contractors. |


© *The Response Group*

## 4.4 Fire and Explosion

### 4.4.1 General Firefighting Procedures

Product specific fire and explosion information can be obtained from the Safety Data Sheets (SDS).

| General Firefighting Procedures | |
|---|---|
| ***No Employees are Expected to Fight a Major Fire.*** | |
| ✓ | If fire is not able to be immediately extinguished, Call 911. |
| ✓ | Appropriate personal protective equipment must be used. |
| ✓ | All personnel must first consider their safety and the safety of others. |
| ✓ | If a small incidental fire away from the wellhead, such as one involving combustibles, should occur, an attempt should be made to extinguish the fire with a fire extinguisher. This should be attempted only if the fire is minor in nature and does not involve natural gas. Only properly trained personnel shall attempt to extinguish a fire. |
| ✓ | Avoid getting trapped by the fire. |
| ✓ | Always fight a fire upwind (wind at your back). |
| ✓ | Never attempt to fight a fire around vessels containing flammable liquids or gases. |


© The Response Group

### 4.4.2 Natural Gas Fire Procedures

| Natural Gas Fire Procedures | |
|---|---|
| In the event of an uncontrolled natural gas release, caution should be exercised due to the possibility of nearby ignition sources. | |
| ✓ | Assess the scene. |
| ✓ | Call 911. |
| ✓ | Notify the Coterra Chain-of Command and activate ICS, if necessary. |
| ✓ | Turn off vehicles when arriving on scene. |
| ✓ | Use extreme caution to avoid the possibility of introducing any ignition sources (e.g., cell phone and handheld radios). |
| ✓ | Do not attempt to put out fire while gas is still escaping. |
| ✓ | Only if it is safe to do so, shut off the source of the gas release. |
| ✓ | Once the source has been shut off, observe the area from a safe distance to ensure that all potential hazards have been addressed. |
| ✓ | Set-up communications. |
| If the source of the gas release cannot be safely shut off: | |
| ✓ | The area should be isolated (restrict access to the site until incident has been resolved). |
| ✓ | The on-scene commander will determine the best plan to eliminate the gas release and the appropriate radius of exposure. |
| ✓ | Notify nearby private residents and/or commercial/public properties as necessary. |
| ✓ | The on-scene commander will determine if area residents should evacuate the area. |

### 4.4.3 Flammable Liquid Fire Procedures

| Flammable Liquid Fire Procedures | |
|---|---|
| ✓ | If not able to be immediately extinguished, Call 911. |
| ✓ | Notify the Coterra Chain-of Command and activate ICS, if necessary. |
| ✓ | Use caution when approaching due to the possibility of intense heat. |
| ✓ | Stop the source before extinguishing any fire, if safe to do so. |
| ✓ | Do not attempt to fight any fire that may endanger your personal safety or the safety of others. |
| ✓ | Only if it is safe to do so, locate and shut off the source of the fire. |
| ✓ | Only attempt to extinguish if the fuel source has been shut off and adjacent equipment is cool, to prevent re-ignition. |

### 4.4.4 Explosions

| Explosions | |
|---|---|
| ✓ | Call 911. |
| ✓ | Notify the Coterra Chain-of Command and activate ICS, if necessary. |
| ✓ | An explosion on a lease or at a facility, may likely result in a fire. |
| ✓ | If the explosion results in a sustained natural gas leak and fire, review the Natural Gas Fire Procedures in Section **4.4.2.** |
| ✓ | Be aware that multiple gas leaks and/or fires may result in an explosion. Caution should be used, and a complete containment plan established before proceeding to eliminate the possibility of secondary explosions. |


© *The Response Group*

## 4.5 Injury / Medical / Rescue

| Injury / Medical / Rescue Checklist | |
|---|---|
| The following checklist can assist in preparing for and responding to workplace injuries. | |
| ✓ | Properly respond to any injured personnel by first making sure that the area is safe for others to properly respond. |
| ✓ | Keep Calm – Get Help – Call 911, if there is a reasonable belief that a person needs emergency medical treatment. |
| ✓ | Always use the proper PPE when responding, avoid contact with blood or other bodily fluids. |
| ✓ | Only move an injured person to a safe location if an immediate threat to their life exists. If you need to move a person you suspect has a neck injury, keep their head, neck immobile, and attempt to move them as one unit. Do the same if an injured person must be rolled over. |
| ✓ | If treatment is required, only administer to the level of your training. |
| ✓ | Notify the appropriate level of supervision and Coterra Chain-of-Command as soon as practical. |
| ✓ | Report to Coterra EHS as soon as practical. |
| ✓ | Follow-up on any actions identified by the incident or investigation. |

| Determining Hospitals | |
|---|---|
| Note that 911 Emergency Services will determine the hospital most appropriate for the incident. One of the best ways to be prepared for a workplace injury or illness is to pre-identify hospitals that are properly equipped to deal with an injury that may result from the types of hazards involved with Coterra operations. See **Section 5** for list of hospitals for each area of operations. | |
| The following may assist in determining any additional hospitals: | |
| ✓ | Types of special care units. |
| ✓ | Air ambulances service. |
| ✓ | Knowledge of hazards associated with oil and gas operations. |
| ✓ | Location. |


© The Response Group

## 4.6 Spill or Release

### 4.6.1 Spill Detection

In the event of a spill or release at a facility, prompt response and reporting are required. Refer to the Notification Flowchart in Section 5. Failure to immediately report and respond to a spill or release may increase the environmental impact.

PADEP Bureau of Oil & Gas Management Permitted Activities:

According to Chapter 78a.66 an operator shall report the following spills and releases of regulated substances at well sites to the Pennsylvania Department of Environmental Protection (PADEP):

- A spill or release of a regulated substance causing or threatening pollution of the waters of the Commonwealth.
- A spill or release of 5 gallons or more of a regulated substance over a 24-hour period that is not completely contained by secondary containment.

If a reportable release on or into the ground occurs at the facility, Coterra EHS shall notify the appropriate regional office of the PADEP within 2-hours of being made aware of the release. If a spill or release causes or is imminent to cause pollution of the waters of the commonwealth it shall be reported to the National Response Center (NRC) and the Pennsylvania Fish and Boat Commission (PFBC).

PADEP Bureau of Waste Management Permitted Activities:

In the event of a discharge or any spill of waste generated or processed in a quantity capable of reaching surface water, the owner/operator shall immediately notify the PADEP Emergency Hotline and the appropriate PADEP Regional Office. The owner/operator shall also take immediate action to protect the health and safety of the public and environment. If a spill or release causes or is imminent to cause pollution of the waters of the commonwealth it shall be reported to the National Response Center (NRC) and the Pennsylvania Fish and Boat Commission (PFBC).


© The Response Group

### 4.6.2 Initial Response

Take the following actions, as appropriate:

| Initial Response | |
|---|---|
| Notifications | |
| ✓ | Refer to the Notification Flowchart in **Section 5** for reporting level. |
| ✓ | Note that PADEP notifications may be required within 2-hours of the incident. These notifications will be made by designated Coterra personnel identified in the Notification Flowchart in **Section 5.** |
| ✓ | Gather information - according to the requirements in PA Code 25 Chapter 78a.66; information regarding the type of material released, approximate volume released, potential environmental impacts, etc. must be provided to the PADEP within 2 hours. |
| Ensure Safety of Citizens & Response Personnel | |
| ✓ | Evaluate personal safety first. |
| ✓ | Identify hazard(s) of the spill or release by referencing the Safety Data Sheet (SDS). |
| ✓ | If Flammable products are present, evaluate and if safe, eliminate potential ignition sources. |
| ✓ | Establish site control (hot zone, warm zone, cold zone, and security), as appropriate. |
| ✓ | Consider evacuations, as appropriate. |
| ✓ | Establish transportation restrictions, as appropriate. |
| ✓ | If necessary, monitor air in impacted areas. |
| ✓ | Develop site safety and health plan for response personnel once the Incident Management Team is activated. Identify the spill control measures and other pertinent information contained in the PPC and SPCC Plans at the site. |
| ✓ | Ensure JSA and/or safety briefings are conducted. |
| Notify Spill Response Contractors | |
| ✓ | If necessary, notify response company for equipment and manpower. |
| Stop and Contain the Spill (If Possible & Safe) | |
| ✓ | Attempt to cease the spill or release to the extent possible without risking human health and safety. |
| ✓ | Prevent migration of the substance from the site of the spill or release. |
| ✓ | If the release occurs on containment and does not migrate off containment it should be immediately cleaned-up and all impacted media shall be collected. Containment should be inspected to confirm competence and that the spill did not migrate from containment. |
| ✓ | If the release occurs off containment or migrates from containment the use of construction equipment (normally present during construction, drilling and hydraulic fracturing operations) may be required to construct emergency containment berms |

| Initial Response | |
|---|---|
| | down gradient of the containment breach/release in addition to the use of commonly available spill absorbent materials. The soil media containing the release will be excavated, removed, and disposed in accordance with applicable regulations and the Coterra Control and Disposal Plan. |
| ✓ | Contact Coterra MBU EHS to arrange for proper disposal. |
| Estimate Spill Volume | |
| ✓ | Retrieve available detailed information on the release (daily production, duration of release, etc.) |
| ✓ | Estimate volume of release. A spill or release of 5-gallons or greater, of a regulated substance, not completely contained must be reported to PADEP within 2 hours (Bureau of Oil & Gas) |
| ✓ | Survey spill site for dimensions of spill. |


© The Response Group

### 4.6.3 $H_2S$ Release

| Hydrogen Sulfide ($H_2S$) Release | |
|---|---|
| ✓ | If a fixed or personal monitor alarms, the employee must assume that $H_2S$ is present. |
| ✓ | The employee shall immediately leave the area by the safest route possible. |
| ✓ | Windsocks, if present, will help the employee determine the wind direction. |
| ✓ | The employee should proceed upwind or move crosswind and then upwind. |
| ✓ | $H_2S$ will collect in low lying areas. Employees should also move uphill, where applicable. |
| ✓ | Notify your Supervisor. |
| ✓ | All employees will follow the Coterra $H_2S$ Policy & Procedures located in the Coterra EHS Manual Policy # EHS-2.35. |
| **Employee Responsibility** | |
| ✓ | Evacuation routes. |
| ✓ | Location of facility alarms, if applicable. |
| ✓ | Designated assembly areas. |
| ✓ | Windsocks. |
| ✓ | Appropriate PPE & breathing apparatus. |
| **Hazard Information** | |
| **Physical Description** | $H_2S$ is a colorless gas with an odor resembling rotten eggs at low concentrations. At high concentrations (150 to 500ppm), loss of the sense of smell can occur. Most people can smell $H_2S$ at concentrations ranging from 0.1 ppm to 2 ppm. $H_2S$ can deaden the sense of smell in a few minutes. At higher concentrations, respiratory paralysis and death may occur quickly. |
| **Primary hazards** | Toxic, flammable gas. Respiratory hazard. Moderately irritating to eyes, mucous membranes. A potentially hazardous volume of hydrogen sulfide is defined as one which could result in a ground level concentration of 100 ppm or higher where people are known or expected to be located. Concentrations of 100 ppm are immediately dangerous to life and health (IDLH). |
| **Fire hazards/special firefighting considerations** | $H_2S$ concentration will be lethal at lower explosive limit, as 4% = 40,000 ppm. Gives off sulfur dioxide when burning. |
| **Spill/release considerations** | $H_2S$ is heavier than air and can accumulate in low-lying areas. $H_2S$ is corrosive to many materials in the presence of water or water vapor and is reactive with oxidizing agents. |


© The Response Group

### 4.6.4 Carbon Dioxide Release

| Carbon Dioxide Release Response | |
|---|---|
| ✓ | A release of $CO_2$ will be indicated by a white vapor cloud. There may be a loud noise associated with the release as the product may be pressurized as high as approximately 2000 psi. |
| ✓ | During upset conditions it is possible the $H_2S$ concentration may increase. |
| ✓ | If entry into the vapor cloud is necessary to control the release; positive pressure breathing apparatus and personal protection from frostbite is required. This may include coats and gloves. |
| ✓ | Obtain a combination $O_2$/LEL/$H_2S$ monitor to measure concentrations while performing work within a $CO_2$ vapor cloud. Concentrations of 100 ppm $H_2S$ and/or ≤19.5% and ≥23.5% $O_2$ will require positive pressure breathing apparatus. |
| ✓ | It is extremely important not to confine $CO_2$. It may be better to let the $CO_2$ vent. Consult with your supervisor. |
| ✓ | Personnel noticing a $CO_2$ release shall notify their supervisor. |
| ✓ | Field office personnel should notify potentially affected personnel or contractors of the location and nature of the emergency and if additional assistance is required. |
| ✓ | Operator will:<br>If possible and safe to do so, block in the source of the release.<br>If this is not possible, the release will be blocked in at the closest source.<br>Do not attempt to close valves in the area of the release without full protective clothing and SCBA. |
| ✓ | A release of $CO_2$ could require notification to State and Federal agencies (**see Section 5**). |
| **Hazard Information** | |
| **Primary Hazard** | Respiratory hazard due to oxygen displacement. Frostbite or freeze burn may result from skin contact. Sour $CO_2$ may contain hazardous levels of hydrogen sulfide. |
| **Exposure Limit** | 5,000 ppm |
| **IDLH Level** | 50,000 ppm |
| **Fire hazards/special firefighting considerations** | Not Applicable |
| **Spill/release considerations** | Utilize hand-held gas detection to monitor oxygen levels |


© The Response Group

### 4.6.5 Hazardous / Flammable Chemicals

| Hazardous Chemicals Release | |
|---|---|
| Leak or Spill from a Chemical Storage Vessel | |
| ✓ | Immediately contact the supervisor in accordance with the Notification Flowchart in **Section 5** and review the SDS for the chemical spilled. Pay particular attention to acute and chronic hazards the chemical may present, and the PPE required handling the material. |
| ✓ | The supervisor will contact the EHS Department, and he/she will provide guidance on spill control, containment, cleanup, regulatory required notification, and activation of chemical specific response plan. |
| ✓ | Contact 911, if necessary. |
| ✓ | Immediately evacuate the area affected by the chemical spill. Be alert for respiratory hazards. Stay upwind if possible. Wear respiratory protection equipment for protection from hazardous materials. |
| ✓ | Eliminate ignition sources if vapors could reach fired vessels, running vehicles, welding activity, cell phone, etc. The tank or vessel should be isolated. |
| ✓ | If the spill migrates outside secondary containment, use hand tools and available earth moving equipment to construct HDPE containment capable of holding 110% of the largest tank capacity. |
| ✓ | Recoverable liquids may be collected by vacuum truck and may be pumped into another storage tank or vessel for storage prior to disposal. |
| ✓ | Chemical contaminated soil and debris will be cleaned up and disposed of in compliance with applicable state and federal regulations. |
| ✓ | A release of a flammable liquid could require notification to state and federal agencies (See **Section 5** for Notification and Contact Information). |
| **Hazard Information** | |
| **Primary Flammable Liquid Inventory** | • Crude Oil<br>• Natural Gas/Natural Gas Liquids<br>• Gasoline/Diesel Fuel<br>• Methanol<br>• Various Well Treatment Fluids (see SDS at site) |
| **Primary Hazard** | Fire/explosion. Respiratory hazard due to oxygen displacement. |
| **Exposure Limit** | Varies with each product. Consult SDS. |
| **Fire Hazards/Special Firefighting Considerations** | Coterra shall provide adequate information regarding the chemicals on location and SDS so that the emergency responders can be prepared. |
| **Spill/release considerations** | Possible skin irritation. Do not enter liquid spill area. No cell phone or non-intrinsically safe devices use. Utilize hand-held gas detection equipment to monitor LEL/$O_2$ levels. |
| **Disposal procedures** | Consult with the EHS Department prior to disposing of any chemical waste. |


© The Response Group

## 4.7 Security Incidents

### 4.7.1 Bomb Threats

| Bomb Threats Via Telephone | |
|---|---|
| The person receiving the call should: | |
| ✓ | Write down observations immediately. |
| ✓ | If available, record the observations on the Bomb Threat Checklist (Refer to **Section 10.2** of this ERP.) |
| ✓ | Attempt to keep the person on the line as long as possible. |
| ✓ | Call 911 |
| ✓ | Try to determine the location of the bomb, what it looks like and when it is scheduled to detonate. |
| ✓ | Notify immediate supervisor without delay and provide them with the Bomb Threat Checklist (Refer to **Section 10.2** of this ERP.) or conversation notes. |
| Facility Supervisor | |
| ✓ | Based on available information, determine whether or not to evacuate the facility or area. |
| ✓ | If an evacuation is declared, specify evacuation routes. |

### 4.7.2 Suspicious Package

| Suspicious Package at Facility/Location | |
|---|---|
| Personnel seeing a suspicious package should: | |
| ✓ | Notify Immediate Supervisor. |
| ✓ | Do not touch or move any suspicious package. |
| Immediate Supervisor | |
| ✓ | Notify appropriate Coterra personnel and/or building/landlord/security. |
| ✓ | Contact local law enforcement (911) immediately. |
| ✓ | Promptly evacuate everyone in the immediate vicinity. |

### 4.7.3 Public Disturbance / Protest

Picketing, demonstrations and protests may develop and affect operations. In such cases, personnel should notify local police and/or security. Suppliers and customers with vehicles scheduled inbound to the facility's vicinity should be notified of their possible encounter with picketers.


© The Response Group

**Activist Threat**

Activists who demonstrate outside company property may impede normal operations and/or interfere with personnel access to the Coterra areas of operations. Activists intend to maximize media interest/coverage.

Protest activities may include, but are not limited to any or all of the following:

- Pre-arranged, lawful assemblage, vigils, or rallies.
- Unlawful, but non-violent, acts of civil disobedience (e.g., symbolic trespassers and traffic blockages).
- Covert entry into facilities to conduct protest acts (e.g., post banners and paint slogans).
- Attempts to penetrate facilities.
- Rioting and destruction of property.

Proactive steps should be taken to assess security risk for demonstrator activities and to define critical areas. Focus should be on preventing access to facilities. In the event entry into a Coterra facility does occur, safety of personnel and operations is the highest priority. Because of this, demonstrators should be removed from the facility safely and quickly by local law enforcement officials, in accordance with local regulations and practices. In no event should demonstrators be allowed to remain in critical areas. The following guidelines have been identified as security best practice and should be incorporated in response planning.

**Response Guidelines**

| Response Guidelines for Activist Threats | |
|---|---|
| Access Control / Physical Security | |
| ✓ | Attempt to restrict access to the site without confronting the demonstrators (i.e., lock lease road gate, block lease road, inform security personnel to restrict access to the facility, etc.) |
| Protecting Critical Areas | |
| ✓ | Areas surrounding the Facility are considered critical areas. |
| ✓ | Local Police Departments will be used to remove "non-peaceful" demonstrators from any critical areas and to assist in channeling or moving "peaceful" activists to non-critical areas. |
| Response Planning and Execution | |
| ✓ | Maintain liaison with the Local Police. |
| ✓ | Work with Local Police Department to ensure safety and security risks involving unauthorized personnel are promptly and appropriately dealt with. |
| ✓ | Notify your supervisor regarding any form of lawful demonstrations or trespassing. Notify facility security personnel if present. |
| ✓ | Instruct personnel to respond to unauthorized access using non-confrontational techniques. |


© The Response Group

| Response Guidelines for Activist Threats | |
|---|---|
| ✓ | Instruct personnel to refer all questions from the media or activists to Coterra Public Relations. |
| ✓ | Facility Manger shall evaluate whether to "shutdown" to ensure safe operations. |
| ✓ | Training may be provided to personnel to respond to activist threat scenarios. |
| ✓ | Operational readiness/safety reviews will be conducted prior to restart of activities in occupied areas. |
| Public Affairs Planning and Response | |
| ✓ | Public Relations shall discuss potential scenarios that could be encountered and the appropriate steps to take for each scenario. |
| ✓ | Facility Manager shall ensure proper notification of Public Relations. |

### 4.8 Traffic Control

Refer to the Coterra EHS Manual Policy Number EHS – 2.67.

The purpose of traffic control in an emergency is to keep people off the location.

- Restrict Access
- Protect the public.
- Protect the employees and responders.
- Control media access.
- Ensure safe entries/exit routes.

| Traffic Control Procedures | |
|---|---|
| ✓ | Establish control at the entrance to keep unauthorized personnel from entering the area. |
| ✓ | In cooperation with law enforcement agencies, the supervisor in charge will assist in directing the setting up of applicable traffic controls in accordance with local, state, and federal regulations. |
| ✓ | If a private road is involved, the facility or lease road may be closed. |
| ✓ | Employees performing work along a roadway will wear high visibility vests, hard-hats and safety glasses. |
| If an emergency occurs away from the lease and endangers a public highway, such as a pipeline break at a road crossing: | |
| ✓ | The proper law enforcement agency shall be notified as soon as possible. |
| ✓ | If there is a real danger to the traveling public, adequate traffic controls should be implemented, and all traffic warned of the danger. |


© The Response Group

## 4.9 Severe Weather

The Severe Weather Checklist below should be used during all severe weather situations.

| Weather Monitoring | |
|---|---|
| ✓ | Radios and scanners can be used to monitor severe weather reports provided by local emergency response frequencies and radio stations. |
| ✓ | National weather service provides public notices. |
| ✓ | All personnel should be notified of severe storms in the area. All personnel can then assist in the weather watch as they go about their regular duties. |

### 4.9.1 Severe Flooding

| Flooding Checklist | |
|---|---|
| ✓ | Evacuate immediately, if advised to do so. |
| ✓ | Avoid areas that are prone to flooding (e.g., dips, low spots, canyons, and washes). |
| ✓ | Avoid areas that are already flooded. |
| ✓ | Never walk through a flooded area. As little as six inches of flowing water can sweep a person off their feet. |
| ✓ | Do not drive through a flooded area. Only two feet of water can lift and wash away a vehicle. |
| ✓ | If a vehicle stalls in a flooded area, abandon the vehicle and move to higher ground. |
| ✓ | Do not park vehicles near streams, especially during severe storm warnings. |


© The Response Group

### 4.9.2 Tornado

| Tornado Checklist | |
|---|---|
| **Tornado Watch** indicates that conditions are favorable for development of a tornado. | |
| ✓ | Be on alert. |
| ✓ | If funnel-shaped clouds are sighted, contact your supervisor and/or Coterra Chain-of-Command and follow procedures below. |
| **Tornado Warning** indicates that a tornado has been spotted in the area. Take protective action. If a tornado strike is imminent, personnel should take shelter immediately. | |
| ✓ | Unless an actual tornado is spotted, notification will probably come from the National Weather Service |
| ✓ | The on-site supervisor or contractor in charge will make the decision to initiate an emergency shut-in. |
| ✓ | **If seeking shelter inside a building**, move to the interior, away from windows. Seek protection from falling or flying objects by sheltering in a closet, bathroom, under a table or desk, etc. |
| ✓ | **If seeking shelter outside**, move away from process areas, product storage, or other areas where release of hazardous materials or hazardous energy may be possible due to storm damage. If in open areas, move to a low-lying area, such as a road ditch, culvert, etc. Lie face down and cover your head to protect yourself from flying debris. |
| ✓ | **If driving in open country,** move away from the approaching tornado at right angles if possible. If there is not time to find shelter, abandon your vehicle and lie flat in a ditch or depression. Avoid areas with large trees and power lines. |
| ✓ | If the area is hit by a tornado, be aware of escaping gas, and possibly a fire. |


© The Response Group

### 4.9.3 Winter Storm Warning / Weather Related State of Emergency Declaration

A winter storm warning may be issued by the National Weather Service and/or a Weather-Related State of Emergency may be Declared by the State. Additionally, governmental agencies may issue road closures due to adverse weather conditions.

| Winter Storm Warning / Weather-Related State of Emergency Checklist | |
|---|---|
| This checklist identifies actions to be taken when company offices or facilities are threatened by a winter storm. | |
| ✓ | If a winter storm strikes and storm severity warrants field evacuation, all personnel will report their status to their supervisor. |
| ✓ | In the event an individual becomes stranded in the field or on the road, stay with the vehicle and follow winter survival rules until help arrives. Do not attempt to travel on foot until it is safe to do so. |
| ✓ | After the storm, facilities will be checked with the aid of four-wheel drive vehicles. All personnel shall maintain 2-way radio or cell phone communication with the office when in the field during or immediately after a storm. |

### 4.9.4 Hurricanes

Hurricane Season is June 1st to November 30th.

| Hurricanes | |
|---|---|
| If a hurricane warning is issued, the following steps need to be taken: | |
| ✓ | Review evacuation plans. |
| ✓ | Notify all employees of the hurricane condition. |
| ✓ | Secure all outside equipment that can be blown away. |
| ✓ | Fuel up all vehicles. |
| ✓ | Check all first aid kits and emergency supplies. |
| ✓ | Check batteries in radios and flashlights. |
| ✓ | Move all trucks and/or equipment from flood prone areas. |
| ✓ | Review and implement hurricane plan/procedures. |
| After the hurricane has passed: | |
| ✓ | Do not start damage assessment until the National Weather Service declares the storm is over. |


© The Response Group

## 4.10 Response Termination

Termination activities are divided into three phases: debriefing the incident, post-incident analysis, and critiquing the incident. The extent to which these phases are undertaken depends on the nature and magnitude of the incident. An incident could trigger the formal termination procedures outlined in this section.

### 4.10.1 Debriefing the Incident

| Debriefing the Incident | |
|---|---|
| ✓ | Debriefings should begin as soon as the "emergency" phase of the operation is completed. Ideally, this should be before first responders leave the scene, and it should include the hazmat response team, sector officers, and other key players such as public information officers and agency representatives who the IC determines would benefit from being involved. |
| ✓ | Inform responders exactly what hazardous materials they were (possibly) exposed to and the signs and symptoms. |
| ✓ | Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation. |
| ✓ | Assign information-gathering responsibilities for a Post-Incident Analysis (PIA) and critique. |
| ✓ | Summarize the activities performed by each sector, including topics for follow-up. |
| *Safety meeting attendance forms and or memoranda may be utilized to document the debriefing.* | |


© The Response Group

### 4.10.2 Post-Incident Analysis

| Post-Incident Analysis | |
|---|---|
| ✓ | PIA is the detailed, step-by-step review of the incident to establish a clear picture of the events that took place during the incident. It is conducted to establish a clear picture of the emergency response for further study. |
| ✓ | The PIA is not the same as investigations conducted to establish the probable cause of the accident for administrative, civil, or criminal proceedings. Those are usually conducted utilizing root cause or hazard and operability methodologies. One person or (or office) should be designated to collect information about the response during the debriefing. Additional data may be obtained from Command post logs, incident reports and eyewitness interpretations. |
| ✓ | Once all available data has been assembled and a rough draft report developed, the entire package should be reviewed by key responders to verify the available facts are arranged properly and verified. The PIA should focus on four key topics: *Command and Control, Tactical Operations, Resources and Support Services*. |
| ✓ | ***Command and Control*** – Was command established and sectors organized? Did information flow from operations personnel through Sector Officers to the Incident Commander? Were response objectives communicated to the personnel expected to carry them out? |
| ✓ | ***Tactical Operations*** – Were the tactical options ordered by the IC and implemented by emergency response personnel effective? What worked? What did not? |
| ✓ | ***Resources*** – Were the resources adequate for the job? Are improvements needed to apparatus and/or equipment? Were personnel trained to do the job effectively? |
| ✓ | ***Support Services*** – Were the support services received from other organizations adequate? What is required to bring support to the desired level? |


© The Response Group

### 4.10.3 Critiquing the Incident

A commitment to critique all hazardous material responses will improve IMT performance by improving efficiency. Use the tool as a valuable learning experience (everyone came to the incident with good intentions). A good critique promotes:

- Trust in the response system as being self-correcting.
- Willingness to cooperate through teamwork.
- Continuing training of skills and techniques.
- Pre-planning for significant incidents.
- Sharing information between response agencies.

| Critique Format | |
|---|---|
| A critique leader is assigned. This can be anyone who is comfortable and effective working in front of a group. The critique leader should: | |
| ✓ | Control the critique. Introduce the players and procedures. Keep it moving and end on schedule. |
| ✓ | Ensure that specific questions receive detailed answers. |
| ✓ | Ensure that all participants follow the critique rules. |
| ✓ | Ensure that each operational group presents their observations. |
| ✓ | Keep notes of important points. |
| ✓ | Sum up the lessons learned. |
| ✓ | Follow up. |
| ✓ | Following the critique, forward the written comments to management. They should highlight suggestions for improving response capabilities and alternative solutions. |
| ✓ | When larger incidents are involved or injuries have occurred, formal reports shall be circulated so that everyone in the response system can understand the “lessons learned.” |

## 4.11 Sustained Actions and Follow-up

A spill or release may transition from an emergency response into a sustained remedial action that requires prolonged mitigation activities. Depending on the material, size, and location of the incident, a Coterra EHS Representative may engage an environmental consultant, to oversee a site investigation to determine the horizontal and vertical extent of media (i.e., soil, groundwater, and/or surface water) affected. The impacted area will be evaluated to determine appropriate remedial options and the most appropriate option will be implemented according to applicable regulations.


© The Response Group

## 4.12 Emergency Response Equipment

### 4.12.1 Fire Suppression Equipment Maintained by Operator

Fire extinguishers are located in each Coterra building. All Coterra vehicles carry fire extinguishers.

### 4.12.2 Spill Control Equipment

In addition to the containment structures engineered at the site, response equipment will be maintained and readily available during drilling and hydraulic fracturing operations to prevent an uncontrolled release from leaving the well site. This minimally includes the following:

- Vacuum truck(s);
- Backhoe or equivalent earth moving equipment; and
- Spill response trailer.

The spill response trailer shall contain sufficient materials (booms, absorbent pads, spill containers, etc.) to provide immediate response and mitigation of an uncontrolled release. Spill response supplies are also stored at Coterra's Susquehanna Office and/or Warehouse as well as third contractor facilities in the regional area.


© The Response Group

# Section 5 Notifications & Contact Information

## 5.1 Notification Quick List Notifications

| Coterra Energy Notification Quick List | | | |
|---|---|---|---|
| Type* | Notifications | Contact Number | Action |
| **Internal Notifications** | | | |
| R | Immediate Supervisor | | |
| R | EHS Department, Marcellus-BU EHS On-Call | 570-737-4260 | Continue Notification Process |
| **Spill Response Organizations (SRO)** | | | |
| A | Diaz Disposal | 570-289-8760 | Call, as incident need dictates, to activate SROs |
| A | RLE Enterprises | 570-842-4051<br>570-840-2709 | Call, as incident need dictates, to activate SROs |
| A | GasSearch Drilling Services Corporation | 570-278-7118 | Call, as incident need dictates, to activate SROs |
| A | Resource Environmental Management | 570-406-1459<br>570-278-8392 | Call, as incident need dictates, to activate SROs |
| A | Wild Well Control - Pennsylvania | 281-784-4700 | Call, as incident need dictates, to activate SROs |
| **Oil Spill Response Organizations (OSRO)** | | | |
| A | EnviroServe | 800-488-0910 | Call, as incident need dictates, to activate OSRO |
| **External Notifications** | | | |
| A | National Response Center (NRC) - HQ | 800-424-8802 | - Oil Discharge<br>- Release over RQ of Hazardous Substance<br>- Sheen on surface of water or shoreline<br>- Notify as soon as practical |
| C | Environmental Protection Agency - EPA Region 3 | 800-438-2474<br>215-814-3255 | Initial Notification made with call to NRC |


© The Response Group

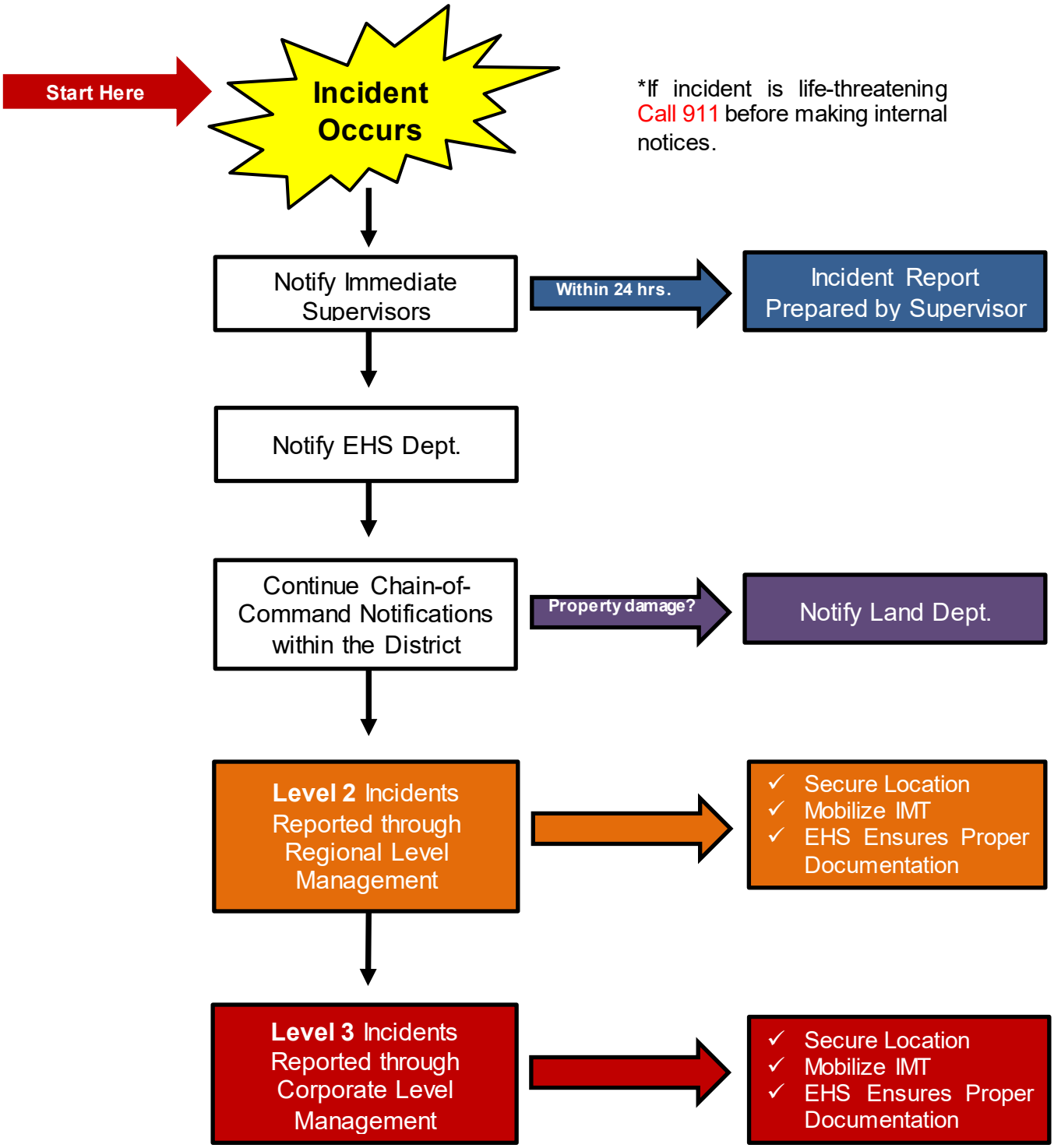
| | | | |
|---|---|---|---|
| A | Occupational Safety & Health Administration (OSHA) - HQ | 800-321-6742 | Any accident involving an employee in which a serious injury, illness, or death occurs |
| C | DOT Pipeline and Hazardous Material Safety Administration | 202-366-4433 | Initial Notification made with call to NRC |
| C | Chemical Safety and Hazard Investigation Board | 202-261-7600 | Initial notification made with call to NRC |
| A | Pennsylvania Department of Environmental Protection-Bureau of Oil & Gas Management | 570-826-2511 | Notify within 2 hours for a). A release causing or threatening pollution of the waters of the Commonwealth or b). A release of 5 gallons or more not completely contained by secondary containment. |
| A | Pennsylvania Department of Environmental Protection-Bureau of Waste Management | 800-541-2050 | In the event of a discharge or any spill of waste generated or processed in a quantity capable of reaching surface water, the owner/operator shall immediately notify the PADEP. |
| A | Pennsylvania Fish and Boat Commission | 570-477-5717 | Release that causes or is imminent to cause pollution of waters of the Commonwealth and/or Waters of the United States |
| C | Pennsylvania Emergency Management Agency | 800-424-7362<br>717-651-2001 | Any hazardous materials release which is above the Reportable Quantity (RQ) established by the EPA's List of Lists |

*R – Required Notification
C – Courtesy Notification
A – As needed for type of incident


© The Response Group

## 5.2 Notification Flowcharts

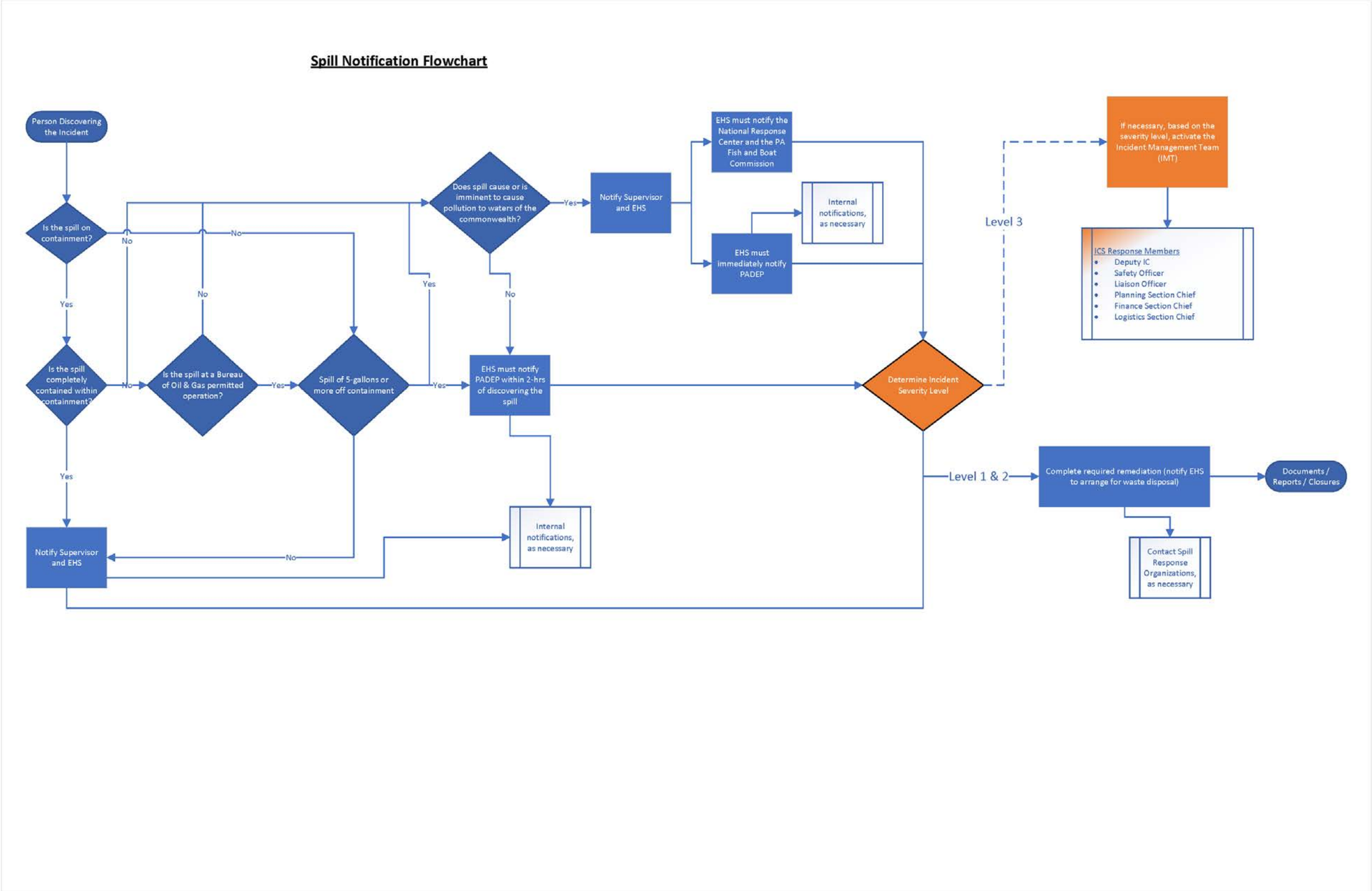
### 5.2.1 Coterra Internal Notification Flowchart





© The Response Group

### 5.2.2 Spill Notification Flowchart





© The Response Group

## 5.3 Emergency Management Contacts

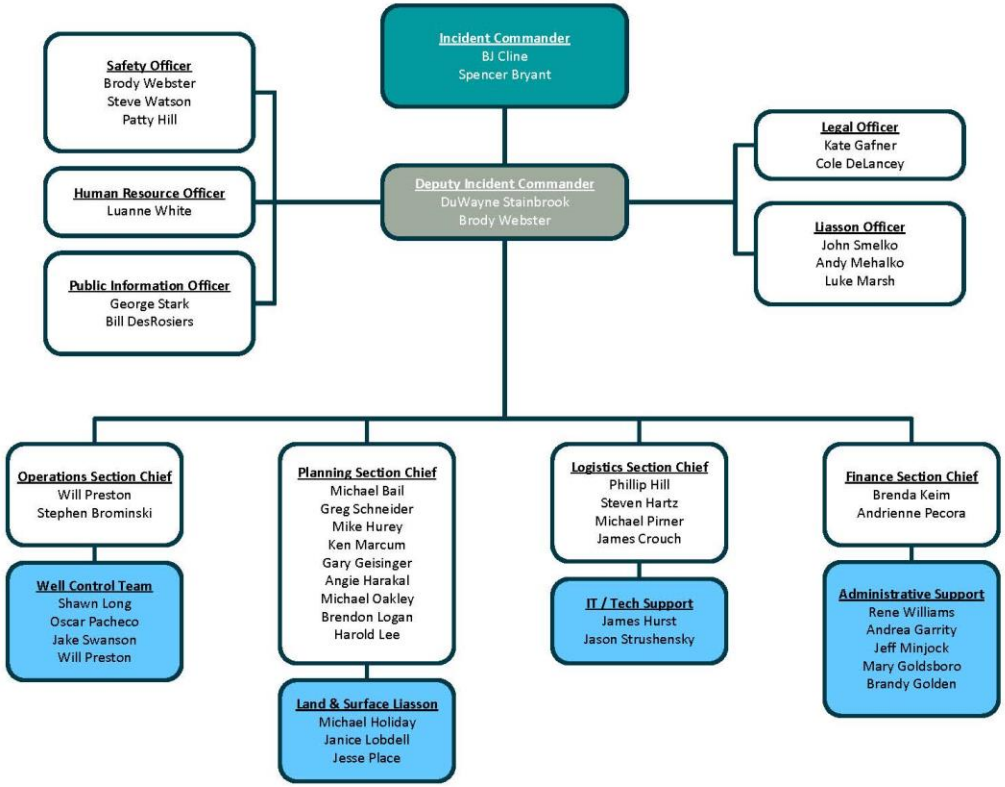
| Emergency Management Contacts | |
|---|---|
| Name | Primary Phone Number |
| Drilling Operations | |
| Shawn Long | 432-227-3380 |
| Greg Schneider | 412-298-3411 |
| Spencer Bryant | 580-768-9995 |
| Completions Operations | |
| Stephen Brominski | 412-298-1428 |
| Jake Swanson | 607-742-5984 |
| Mike Hurey | 412-303-3603 |
| Spencer Bryant | 580-768-9995 |
| Production Operations | |
| Will Preston | 317-607-5666 |
| Phillip Hill | 570-240-1489 |
| Steven Hartz | 814-730-8948 |
| Michael Bail | 412-605-8862 |
| DuWayne Stainbrook | 716-239-1875 |
| BJ Cline | 304-923-9930 |
| Construction | |
| Mike Pirner | 570-280-0362 |
| Mike Murnin | 570-280-9029 |
| Dan Kenia | 570-240-3393 |
| Environmental Safety and Health Representative | |
| On-Call EHS Department | 570-737-4260 |


© The Response Group

| Individuals Responsible for Incident Reporting | | |
|---|---|---|
| Name/Position | Office | Cell |
| Emergency 24-Hr Contact Number | | |
| Emergency 24-Hr Contact Number | (855) 641-0300 | |
| Primary | | |
| Steve Watson<br>Sr. EHS Specialist | 570-278-8621 | 570-267-4953 |
| Michael Oakley<br>EHS Specialist | 570-278-6912 | 570-767-2267 |
| Brendon Logan<br>EHS Specialist | 570-278-3519 | 570-767-2392 |
| Brody Webster<br>EHS Manager | 570-278-6945 | 580-916-0952 |
| Secondary | | |
| Luke Marsh<br>Ld. EHS Specialist | 412-249-4202 | 724-814-0439 |
| Andy Mehalko<br>Environmental Supervisor | 412-249-3852 | 412-759-4829 |
| John Smelko<br>Environmental & Regulatory Compliance Manager | 412-249-3854 | 412-613-7642 |
| Spencer Bryant<br>Drilling & Completions Manager | 432-620-7885 | 580-768-9995 |
| Michael Bail<br>Divisional Superintendent | 570-278-8618 | 412-605-8862 |
| DuWayne Stainbrook<br>Facilities Manager | 412-249-3877 | 716-239-1875 |
| BJ Cline<br>Production Manager | 570-278-8600 | 304-923-9930 |


© The Response Group

## 5.4 Incident Management Team





© The Response Group

| Incident Management Team Contact Information | | |
|---|---|---|
| Name | Office Location | Cell |
| Incident Commander | | |
| BJ Cline | Pittsburgh | 304-923-9930 |
| Spencer Bryant | Pittsburgh | 580-768-9995 |
| Deputy Incident Commander | | |
| DuWayne Stainbrook | Pittsburgh | 716-239-1875 |
| Brody Webster | Susquehanna | 580-916-0952 |
| Safety Officer | | |
| Brody Webster | Susquehanna | 580-916-0952 |
| Steve Watson | Susquehanna | 570-267-4953 |
| Patty Hill | Susquehanna | 570-536-3380 |
| Human Resource Officer | | |
| Luanne White | Pittsburgh | 570-840-8669 |
| Public Information Officer | | |
| George Stark | Pittsburgh | 412-551-6616 |
| Bill DesRosiers | Susquehanna | 412-956-5742 |
| Liaison Officer | | |
| John Smelko | Pittsburgh | 412-613-7642 |
| Andy Mehalko | Pittsburgh | 412-759-4829 |
| Luke Marsh | Pittsburgh | 724-814-0439 |
| Legal Officer | | |
| Kate Gafner | Pittsburgh | 412-996-4780 |
| Cole Delancey | Houston | 412-228-2026 |
| Land & Surface Liaison | | |
| Michael Holiday | Pittsburgh | 724-388-9546 |
| Gianny Diaz | Pittsburgh | 412-551-4597 |


© The Response Group

| Land & Surface Liaison | | |
|---|---|---|
| Janice Lobdell | Susquehanna | 570-280-0839 |
| Jesse Place | Susquehanna | 832-846-4469 |
| **Operations Section Chief** | | |
| Will Preston | Susquehanna | 317-607-5666 |
| Stephen Brominski | Susquehanna | 412-298-1428 |
| **Well Control Team** | | |
| Shawn Long | Susquehanna | 432-227-3380 |
| Oscar Pacheco | Susquehanna | 337-962-7456 |
| Jake Swanson | Susquehanna | 607-742-5984 |
| Will Preston | Susquehanna | 317-607-5666 |
| **Planning Section Chief** | | |
| Michael Bail | Susquehanna | 412-605-8862 |
| Greg Schneider | Pittsburgh | 412-298-3411 |
| Mike Hurey | Pittsburgh | 412-303-3603 |
| Ken Marcum | Pittsburgh | 412-551-2967 |
| Gary Geisinger | Pittsburgh | 412-249-3903 |
| Angie Harakal | Pittsburgh | 614-446-2992 |
| Michael Oakley | Susquehanna | 570-767-2267 |
| Brendon Logan | Susquehanna | 570-767-2392 |
| Harold Lee | Pittsburgh | 412-277-5532 |
| **Administrative Support Team** | | |
| Andrea Garrity | Pittsburgh | 412-266-5864 |
| Jeff Minjock | Pittsburgh | 412-249-3864 |
| Mary Goldsboro | Pittsburgh | 724-413-4116 |
| Brandy Golden | Susquehanna | 570-278-8606 |
| Rene Williams | Pittsburgh | 412-249-1936 |


© The Response Group

| Logistics Section Chief | | |
|---|---|---|
| Phillip Hill | Susquehanna | 570-240-1489 |
| Steven Hartz | Susquehanna | 814-730-8948 |
| Mike Pirner | Susquehanna | 570-280-0362 |
| James Crouch | Susquehanna | 570-766-5170 |
| IT / Tech Support Team | | |
| James Hurst | Susquehanna | 570-767-1649 |
| Jason Strushensky | Pittsburgh | 412-439-6508 |
| Finance Section Chief | | |
| Brenda Keim | Pittsburgh | 610-360-9962 |
| Adrienne Pecora | Pittsburgh | 412-249-3880 |


© The Response Group

## 5.5 Coterra Offices

### 5.5.1 Houston

| Houston Office | | |
|---|---|---|
| Organization | Location | Primary |
| Coterra Corporate Office | Three Memorial City Plaza 840 Gessner Road, Suite 1400 Houston, TX 77024 | 281-589-4600 |

For emergencies call 911.

| Houston County Emergency Management Agencies | | |
|---|---|---|
| Organization | Location | Primary |
| City of Houston Office of Emergency Management | Houston, TX | 713-884-4500 |

The primary contact for emergency fire services is 911.

| Houston Fire Departments | | |
|---|---|---|
| Organization | Location | Primary |
| Houston Fire | 500 Jefferson, Suite 1700 Houston, TX 77002 | 832-394-6700 |
| Houston Fire Marshal's Office | 500 Jefferson, Suite 1700 Houston, TX 77002 | 832-394-6900 |

The primary contact for emergency law enforcement services is 911.

| Houston Law Enforcement | | |
|---|---|---|
| Organization | Location | Primary |
| Houston Police Department | 1200 Travis St. Houston, TX 77002 | 713-884-3131 |

| Houston LEPC | | |
|---|---|---|
| Organization | Location | Primary |
| Greater Houston LEPC | 1801 Smith St. 7th Floor Houston, TX 77002 | 713-249-9687 |

Primary contact for medical services is 911. Emergency first responders will determine the appropriate care center.


© The Response Group

| Houston Hospitals | | |
|---|---|---|
| Organization | Location | Primary |
| enTrust Immediate Care | 9778 Katy Freeway, Suite 100 Houston, TX 77055 | 713-468-7845 |
| Memorial Hermann Memorial City Medical Center | 921 Gessner Houston, TX 77024 | 713-242-2256 |

Primary contact for medical services is 911. Emergency first responders will determine the appropriate care center.

| Houston Ambulance Services | | |
|---|---|---|
| Organization | Location | Primary |
| Houston Fire / EMS | 500 Jefferson, Suite 1700 Houston, TX 77002 | 832-394-6700 |


© The Response Group

### 5.5.2 Pittsburgh

| Pittsburgh Office | | |
|---|---|---|
| Organization | Location | Primary |
| Coterra Pittsburgh Office | 2000 Park Lane Suite 300 Pittsburgh, PA 15275 | 412-249-3850 |

For emergencies call 911.

| Pittsburgh County Emergency Management Agencies | | |
|---|---|---|
| Organization | Location | Primary |
| Allegheny County Emergency Services | 150 Hookstown Grade Rd. Moon Twp, PA 15108 | 412-473-1000 |

The primary contact for emergency fire services is 911.

| Pittsburgh Fire Departments | | |
|---|---|---|
| Organization | Location | Primary |
| North Fayette Volunteer Fire Department | 7678 Steubenville Pike Oakdale, PA 15071 | 412-787-2883 |
| Forest Grove Volunteer Fire Department | 2044 Ewing Mill Road Coraopolis, PA 15108 | 412-264-6335 |
| Groveton Volunteer Fire Department | 4596 Hayes Avenue Coraopolis, PA 15108 | 412-264-2227 |
| Moon Run Volunteer Fire Department | 5624 Steubenville Pike Pittsburg, PA 15244 | 412-787-0527 |

| Pittsburgh Law Enforcement | | |
|---|---|---|
| Organization | Location | Primary |
| North Fayette Police Department | 400 N. Branch Rd. Oakdale, PA 15071 | 724-693-8400 |
| Robinson Township Police Department | 1000 Church Hill Rd. Pittsburg, PA 15205 | 412-788-8115 |

| Pittsburgh LEPC | | |
|---|---|---|
| Organization | Location | Primary |
| Allegheny County EMA | 150 Hookstown Grade Rd. Coraopolis, PA 15108 | 412-473-2500 |


© The Response Group

| | | |
|---|---|---|
| North Fayette Township Emergency Management | 400 North Branch Road Oakdale, PA 15071 | 412-788-4888 |

Primary contact for medical services is 911. Emergency first responders will determine the appropriate care center.

| Pittsburgh Hospitals | | |
|---|---|---|
| Organization | Location | Primary |
| Heritage Valley Kennedy | 25 Heckel Road McKees Rocks, PA 15136 | 877-771-4547 |
| UPMC Mercy | 1400 Locust Street Pittsburgh, PA 15219 | 412-232-8111 |
| Allegheny General Hospital | 320 East North Avenue Pittsburgh, PA 15219 | 412-359-3131 |

Primary contact for medical services is 911. Emergency first responders will determine the appropriate care center.

| Pittsburgh Ambulance Services | | |
|---|---|---|
| Organization | Location | Primary |
| Southbridge EMS | 178 Hickory Grade Road Bridgeville, PA 15017 | 412-221-5115 |
| Robinson EMS | 998 Church Hill Road Pittsburg, PA 15205 | 412-787-5044 |


© The Response Group

### 5.5.3 Susquehanna

| Susquehanna Office | | | |
|---|---|---|---|
| Organization | Location | Primary | Emergency |
| Coterra Susquehanna Office | 8207 State Route 29 , PA | 570-278-3518 | 855-641-0300 |

For emergencies call 911.

| Susquehanna County Emergency Management Agencies | |
|---|---|
| Organization | Primary Phone Number |
| Susquehanna County 911 (EMA Coordinator) | 570-278-3841 |

Primary contact for emergency fire services is 911.

| Susquehanna Fire Departments | | |
|---|---|---|
| Organization | Location | Primary |
| Hallstead Fire Company | 133 Lackawanna Ave Hallstead, PA 18822 | 570-879-2832 |
| Columbia Hose Co. (New Milford VFD) | 22 Spring Street New Milford, PA 18834 | 570-465-3238 |
| Thompson Hose Company | 53 Water Street Thompson, PA 18465 | 570-442-1107 |
| Nicholson Fire Department | 44 Main Street Nicholson, PA 18446 | 570-942-6891 |
| Le Raysville Fire Department | School Street Le Raysville, PA 18829 | 570-744-1329 |
| Susquehanna Fire Department | 43 Erie Blvd. Susquehanna, PA 18847 | 570-853-3197 |
| Union Dale Volunteer Fire Company | 880 South Main St. Union Dale, PA 18470 | 570-679-2221 |
| Meshoppen VFD | SR 267 and Mowry Street Meshoppen, PA 18630 | 570-833-2293 |
| Hop Bottom VFD | 16 South Center Street Hop Bottom, PA 18824 | 570-289-4427 |
| Clifford Township Fire Company | 1035 State Route 106 Clifford, PA 18413 | 570-222-3741 |
| Harford Volunteer Fire Company | 142 Fair Hill Rd. Harford, PA 18823 | 570-434-2839 |
| Elk Lake VFW | 11550 State Route 3001 Montrose, PA 18001 | 570-278-2771 |


© The Response Group

| | | |
|---|---|---|
| United Fire Company | 72 Monument Square Montrose, PA 18801 | 570-278-2879 |
| Forest Lake VFD | 12255 Forest Lake Road Montrose, PA 18801 | 570-553-2467 |
| Great Bend Hose Company | 54 Tannery Street Great Bend, PA 18821 | 570-879-2854 |
| Rush VFD | 11084 State Route 267 Montrose, PA 18801 | 570-934-2175 |
| Springville VFD | 3866 State Route 29 Springville, PA 18844 | 570-965-2341 |

Primary contact for emergency law enforcement services is 911.

| Susquehanna Law Enforcement | | |
|---|---|---|
| Organization | Location | Primary |
| Susquehanna County Sheriff's Office | 31 Lake Avenue Montrose, PA 18801 | 570-278-4600 |
| PA State Police Gibson Station | 2856 State Rte. 848 New Milford, PA 18834 | 570-465-3154 |
| Montrose Boro Police Department | 115 Cherry Street Montrose, PA 18801 | 570-278-1312 |

| Susquehanna LEPC | | |
|---|---|---|
| Organization | Location | Primary |
| Susquehanna County LEPC (911) | 81 Public Avenue Montrose, PA 18801 | 570-278-4600, Ext. 257 |

Primary contact for medical services is 911. Emergency first responders will determine the appropriate care center.

| Susquehanna Hospitals | | |
|---|---|---|
| Organization | Location | Primary |
| Barnes-Kasson County Hospital | 2872 Turnpike Street Susquehanna, PA 18847 | 570-853-3135 |
| Endless Mountains Health Systems | 100 Hospital Drive Montrose, PA 18801 | 570-278-3801 |
| Commonwealth Health | 5950 State Route 6 Tunkhannock, PA 18657 | 570-836-2161 |

Primary contact for medical services is 911. Emergency first responders will determine the appropriate care center.


© The Response Group

| Susquehanna Ambulance Services | | |
|---|---|---|
| Organization | Location | Primary |
| Harford Volunteer Fire Company | 142 Fair Hill Rd. Harford, PA 18823 | 570-434-2839 |
| Susquehanna Fire Department | 43 Erie Blvd. Susquehanna, PA 18847 | 570-853-3197 |
| Montrose Minute Men (EMS) | 23 Hollister Drive Montrose, PA 18801 | 570-278-9188 |
| Thompson Hose Company | 53 Water Street Thompson, PA 18465 | 570-442-1107 |


© The Response Group

## 5.6 Response Contractors

| Response Contractors | | |
|---|---|---|
| Contact | Location | Phone |
| General Response Contractors | | |
| Diaz Disposal | 7686 State Route 167 Kingsley, PA 18826 | 570-289-8760 |
| GasSearch Drilling Services Corporation | 8283 State Route 29 Montrose 18801 | 570-278-7118 |
| Wild Well Control - Pennsylvania | 259 McCracken Rd. Roaring Branch, PA 17765 | 281-784-4700 |
| Environmental Engineering / Consulting | | |
| Civil and Environmental Consultants, Inc | 333 Baldwin Road Pittsburgh, PA 15205 | (800) 365-2324 |
| Folsom Engineering | 4361 PA-87 Mehoopany, PA 18629 | 570-406-9950 |
| Moody and Associates, Inc. | 685 Broad Street Ext. Waverly, NY 14892 | 607-565-8800 |
| Resource Environmental Management | 36 Taylor Lane Montrose, PA 18801 | 570-406-1459 |
| Fluid Recycle and/or Disposal Locations | | |
| A&M Hibbard Centralized Treatment Facility | 7111 S.R. 29 Springville, PA 18844 | 570-737-4260 |
| Eureka Resources (Williamsport) | 419 2nd Street Williamsport, PA 17701 | 570-323-2535 |
| Eureka Standing Stone | 34640 Route 6 Wysox, PA 18854 | 570-265-3773 |
| C2G Energy Solution, LLC | 120 Hart Road Montrose, PA 18801 | 570-945-5458 |
| Solids Disposal Locations | | |
| Alliance Landfill (Waste Management) | 398 S. Keyser Ave. Taylor, PA 18517 | 800-869-5566 |
| Covanta | 343 King St. Myerstown, PA 17067 | 717-866-9955 |
| Keystone Sanitary Landfill | 249 Dunham Drive Dunmore, PA 18512 | 570-343-5782 |
| Susquehanna Transfer, LLC | 294 Ellsworth Drive Montrose, PA 18801 | 570-432-0109 |
| Waste Control Specialists LLC | 9998 West State Hwy 176 Andrews, TX 79714 | 432-525-8612 |
| Transportation of Wastes | | |
| Diaz Disposal | 7686 State Route 167 Kingsley, PA 18826 | 570-289-8760 |


© The Response Group

| Transportation of Wastes | | |
|---|---|---|
| GasSearch Drilling Services Corporation | 8283 State Route 29 Montrose 18801 | 570-278-7118 |
| Holcomb Energy | 185 Henry Holod Rd. Factoryville, PA 18419 | 570-836-8050 |
| Resource Environmental Management | 36 Taylor Lane Montrose, PA 18801 | 570-406-1459 |
| RLE Enterprises | 457 N. Main St. Moscow, PA 18444 | 570-842-4051 |
| Susquehanna Gas Field Services LLC | Frantz Road Meshoppen, PA 18630 | 570-833-0106 |
| Midosa LTD | 3238 Springfield Road Columbia Cross Roads, PA 16914 | 570-529-2262 |
| Costy's Energy Services | 244 Grey Fox Road Muncy, PA 17754 | 570-662-2752 |
| Mountain Energy Services | 205 W. Tioga Street Tunkhannock, PA 18657 | 570-878-2891 |
| Incident Management/IAP Support | | |
| The Response Group | 13939 Telge Road Cypress, TX 77429 | 281-880-5000 |


© The Response Group

## 5.7 Notifications

### 5.7.1 Pennsylvania Department of Environmental Protection (PADEP) Bureau of Oil and Gas Management, Bureau of Waste Management, and Bureau of Air Quality

**Pennsylvania Department Of Environmental Protection - Bureau Of Oil & Gas Management**
**570-826-2511**

| | |
|---|---|
| **Department of Environmental Protection Northeast Regional Office**<br>**2 Public Square**<br>**Wilkes-Barre, PA 18701**<br>**Phone: (570) 826-2511** | **Department of Environmental Protection Scranton District Office**<br>**321 Spruce Street, Suite 300**<br>**Scranton, PA 18503**<br>**Phone: (570) 963-4521**<br>**24 Hour Hotline :(570)825-2511**<br><br>**Department of Environmental Protection Central Office (Harrisburg)**<br>**(800) 541-2050 (24-hour)** |

**Reporting Requirements (Bureau of Oil & Gas Permitted Facilities)**

In accordance with Chapter 78a.66(b)(1)(ii), an operator or other responsible party is required to report a spill or release of 5 gallons or more of a regulated substance over a 24-hour period that is not completely contained by secondary containment. In the event of a reportable release, the following information is to be supplied to PADEP within **two** hours of discovery of the release:

- Company name
- Location of the release (Well Pad, Address, County, Township, Coordinates)
- Date and time of release
- The type of fluid or material released
- The volume of the material released
- Contact person and phone number
- A brief description of the incident
- Remedial action planned or initiated

If the District Office is closed, use the 24-Hour Hotline number to report to incident.https://www.osha.gov/pls/ser/serform.redoform


© The Response Group

| **Pennsylvania Department of Environmental Protection - Bureau of Waste Management 570-826-2511** | |
|---|---|
| **Department of Environmental Protection Northeast Regional Office**<br>**2 Public Square**<br>**Wilkes-Barre, PA 18701**<br>**Phone: (570) 826-2511** | **Department of Environmental Protection Central Office (Harrisburg)**<br><br>**(800) 541-2050 (24-hour Hotline)** |
| **Reporting Requirements (Bureau of Waste Management Permitted Facilities)** | |
| In the event of a discharge or any spill of waste generated or processed in a quantity capable of reaching surface water, the owner/operator shall immediately notify the PADEP Emergency Hotline and the appropriate PADEP Regional Office. The owner/operator shall also take immediate action to protect the health and safety of the public and environment. https://www.osha.gov/pls/ser/serform.redoform | |


© The Response Group

## Pennsylvania Department Of Environmental Protection - Bureau Of Air Quality 570-826-2511

| | |
|---|---|
| **Department of Environmental Protection Northeast Regional Office**<br>**2 Public Square**<br>**Wilkes-Barre, PA 18701**<br>**Phone: (570) 826-2511** | **Department of Environmental Protection Central Office (Harrisburg)**<br><br>**(800) 541-2050 (24-hour Hotline)** |

**Reporting Requirements (Bureau of Air Quality Permitted Facilities)**

**GP-5, GP-5A Malfunction Reporting Instructions**

Section A.11(c) Malfunctions.

(i) Any malfunction that poses an imminent danger to the public health, safety, or welfare or to the environment shall be reported by telephone to the County Emergency Management Agency and to the 24 hour Emergency Hotline at 1-800-541-2050 no later than one hour after the discovery of an incident. Following the telephone or email notification, a written notice as specified in (iv) below shall be submitted to DEP within three business days.

(ii) Any malfunction that does not pose an imminent danger to the public health, safety, or welfare or to the environment shall follow the guidance provided in the **GP-5 and GP-5A Malfunction Reporting Instructions** and, if required to report, shall notify the Air Program Manager of the appropriate DEP Regional Office by telephone or email within 24 hours of discovery. Following the telephone or email notification, a written notice as specified in (iv) below shall be submitted to DEP within five business days.

(iii) If the owner or operator is unable to provide notification by telephone to the Air Program Manager of the appropriate DEP Regional Office within 24 hours of the discovery of a malfunction due to a weekend or holiday, the notification shall be made to the Department no later than 4:00 pm on the first business day following the weekend or holiday.

(iv) Written notification shall include:

(A) The name, GP-5A authorization number, and location of the facility;

(B) The nature and cause of the malfunction or incident;

(C) The date and time when the malfunction, incident, or breakdown was first discovered;

(D) The expected duration of increased emissions;

(E) The estimated rate of emissions for all criteria, hazardous, and greenhouse gas pollutants; and

(F) Any changes to the equipment or modification of the procedures that will prevent future reoccurrences of the malfunction.

(v) The owner or operator shall notify the Air Program Manager of the appropriate DEP Regional Office by telephone or email within 24 hours of when corrective measures have been implemented.

(vi) Any emissions due to a malfunction are to be reported in the annual emissions inventory report required in Condition 13(d).

If the District Office is closed, use the 24-Hour Hotline number to report to incident.https://www.osha.gov/pls/ser/serform.redoform


© The Response Group

### 5.7.2 Pennsylvania Emergency Management Agency (PEMA)

| **Pennsylvania Emergency Management Agency (PEMA-Commonwealth Watch and Warning Center) 717-651-2001** | |
|---|---|
| **PEMA Headquarters**<br>**1310 Elmerton Avenue, Harrisburg, PA 17110** | **Emergency 24-Hr:**<br>717-651-2001 |

| **Reporting Requirements** | |
|---|---|
| **Who Must Provide Notification?** | |
| The owner, operator, or person in charge where a discharge has occurred must provide notification of a release of a hazardous material which is above the Reportable Quantity (RQ) to Commonwealth Watch and Warning Center. | |
| **What Kinds of Discharges Must be Reported?** | |
| Federal and state law requires that the Local Emergency Planning Committee via 911 (LEPC), the State Emergency Planning Committee (SERC), and National Response Center (NRC)-be notified immediately following a hazardous materials release which is above the Reportable Quantity (RQ) established by the EPA's List of Lists (contacting the PEMA - Commonwealth Watch and Warning Center meets the SERC notification requirements) | |
| **When Must Notification Be Provided?** | |
| Oral notification must be provided to Commonwealth Watch and Warning Center as soon as possible after learning of a discharge. A follow-up report is also required within 14 days for fixed facilities and within 30 days for transportations related incidents. | |
| **What Information Must Be Provided?** | |
| When reporting a hazardous materials spill or release which meets the criteria listed above, please include the following in the initial report: | |
| ✓ | Your name, location, organization, and telephone number |
| ✓ | Name and address of the party responsible for the incident; or name of the carrier or vessel, the railcar/truck number, or other identifying information |
| ✓ | Date and time of the incident |
| ✓ | Location of the incident |
| ✓ | Source and cause of the release or spill |
| ✓ | Types of material(s) released or spilled |
| ✓ | Quantity of materials released or spilled |
| ✓ | Medium (e.g., land, water-affected by release or spill |
| ✓ | Danger or threat posed by the release or spill |
| ✓ | Number and types of injuries or fatalities (if any) |
| ✓ | Weather conditions at the incident location |
| ✓ | Whether an evacuation has occurred |
| ✓ | Other agencies notified or about to be notified |
| ✓ | Any other information that may help emergency personnel respond to the incident |


© The Response Group

### 5.7.3 Local Emergency Planning Committees

## Local Emergency Planning Committees

| Area of Operation | Contact |
|---|---|
| Susquehanna County LEPC | 911; See Section 5.6.5 |
| Wyoming County EMA | 911; See Section 5.7.5 |

### 5.7.4 National Response Center (NRC)

## NRC
## 800-424-8802

| | |
|---|---|
| **National Response Center (NRC)**<br>**c/o United States Coast Guard (CG-MER-3)**<br>**2703 Martin Luther King Jr. Ave SE Washington, D.C. 20593-7000** | **Additional Information:**<br>**Web Site** https://nrc.uscg.mil/ |

If you have a spill/release to report, contact the NRC via the toll-free number or visit the NRC Web Site (https://nrc.uscg.mil/) for additional information on reporting requirements and procedures. For those without 800 access, please contact the NRC at 202-267-2675.

| Reporting Requirements | |
|---|---|
| **Type:** | If a spill or release causes or is imminent to cause pollution of the waters of the commonwealth it shall be reported to the National Response Center (NRC) and the Pennsylvania Fish and Boat Commission (PFBC). |
| **Verbal:** | Immediately |
| **Written:** | As requested by the agency |
| Be prepared to give the following information when reporting an incident: | |
| ✓ | Your name, location, organization, and telephone number |
| ✓ | Name and address of the party responsible for the incident |
| ✓ | Date and time of the incident |
| ✓ | Location of the incident |
| ✓ | Source and cause of the release or spill |
| ✓ | The number of fatalities and personal injuries if any |
| ✓ | All other significant facts that are known by the operator that are relevant to the cause of the incident or the extent of damages. |


© The Response Group

### 5.7.5 Pennsylvania Fish & Boat Commission

| **Pennsylvania Fish & Boat Commission – Northeast Region (570) 477-5717** | |
|---|---|
| **PA Fish & Boat Commission – Northeast Region**<br>**5566 Main Road, PO Box 88**<br>**Sweet Valley, PA 18656**<br>**Phone: (570) 477-5717** | **PA Fish & Boat Commission Pollution Hotline**<br>**(888) 723-4741** |

| **Reporting Requirements** | |
|---|---|
| **Type:** | If a spill or release causes or is imminent to cause pollution of the waters of the commonwealth it shall be reported to the National Response Center (NRC) and the Pennsylvania Fish and Boat Commission (PFBC). |
| **Verbal:** | Immediately |
| **Written:** | As requested by the agency |
| Be prepared to give the following information when reporting an incident: | |
| Your name, location, organization, and telephone number | |
| Name and address of the party responsible for the incident | |
| Date and time of the incident | |
| Location of the incident | |
| Source and cause of the release or spill | |
| All other significant facts that are known by the operator that are relevant to the cause of the incident or the extent of damages. | |


© The Response Group

### 5.7.6 Environmental Protection Agency (EPA)

| **EPA Region 3 (Mid-Atlantic)**<br>**800-438-2474** | |
|---|---|
| **Environmental Protection Agency Region 3**<br>**1650 Arch Street**<br>**Philadelphia, PA 19103** | **General Information**<br>**Contacting the NRC meets the EPA reporting requirements**<br>Phone: 215-814-5000<br>215-814-9016 Emergency Response & Oil Spills (Reporting)<br>215-814-3255 (Emergency Response, Oil & Chemical Spills 24-hour Reporting)<br>https://www.epa.gov/aboutepa/epa-region-3-mid-atlantic |

| **Reporting Requirements** | |
|---|---|
| **Type:** | Any amount of oil that has entered or threatened to enter any navigable waters; |
| | A release of a hazardous substance above the RQ according to CERCLA requirements |
| **Verbal:** | At the earliest possible convenience |
| **Written:** | Not required |
| **States:** | Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia and 7 federally recognized tribes |
| **Note: Always request fax confirmation of the report** | |

If the facility discharges more than 1,000 gallons (23.8 barrels-of oil into waters of the U.S. in a single discharge event, or more than 42 gallons in each of two discharges within a twelve month period) the information required in 40 CFR 112.4(a) must be submitted to the EPA within 60 days.


© The Response Group

### 5.7.7 Occupational Safety and Health Administration

## Occupational Safety & Health Administration Region 3
## 800-321-OSHA (6742)

| | |
|---|---|
| **Occupational Safety and Health Administration (OSHA)**<br>**Region 3 (PA, WV, VA, DE, MD, DC)**<br>**(215) 861-4900**<br>**1835 Market Street Mailstop OSHA-RO/19**<br>**Philadelphia, PA 19103** | **24-Hour Hotline:**<br>**800-321-OSHA-6742**<br>**Wilkes-Barre Area Office**<br>**570-826-6538**<br>https://www.osha.gov/alliances/regional/Region-3 |

Reporting Requirements

Basic requirement. Within eight (8)-hours after the death of any employee from a work- related incident. Any work-related in-patient hospitalization, as well as amputations and losses of any eye must be reported to OSHA within 24-hours.**

In accordance with 29 CFR 1904.39 the following information is to be supplied to OSHA when reporting an incident:

- Company name
- Location of the Incident
- Time of Incident
- Number of fatalities or hospitalized employees
- Names of any injured employees
- Contact person and phone number
- A brief description of the incident

If the Regional Office is closed, use the 24-Hour Hotline number to make verbal report. The following link will also take you to the on-line OSHA Form that can be submitted electronically:
https://www.osha.gov/pls/ser/serform.redoform

****The reporting time frames above are when the company learns of the accident and not when the accident actually occurred.**


© The Response Group

### 5.7.8 Chemical Safety and Hazardous Investigation Board

## Chemical Safety & Hazard Investigation Board
## 202-261-7600

**Reporting Requirements**

The CSB requires an owner or operator of a stationary source to submit an accidental release report to the CSB any accidental release of a regulated substance resulting in a fatality, serious injury or substantial property damages.

If notification to the National Response Center (NRC) has been made, the CSB reporting requirement may be satisfied by submitting the NRC identification number to the CSB immediately following submission of the report to the NRC.

If notification has not been made to the NRC, a report must be submitted directly to the CSB within eight (8) hours of the accidental release and must include the following information, as applicable:

| | |
|---|---|
| ☐ | The name of, and contact information for, the owner/operator; |
| ☐ | The name of, and contact information for, the person making the report; |
| ☐ | The location information and facility identifier; |
| ☐ | The approximate time of the accidental release; |
| ☐ | A brief description of the accidental release; |
| ☐ | An indication whether one or more of the following has occurred:<br>• Fire;<br>• Explosion;<br>• Death;<br>• Serious injury; or<br>• Property damage; |
| ☐ | The name of the material(s) involved in the accidental release, the Chemical Abstract Service (CAS-number(s), or other appropriate identifiers |
| ☐ | If known, the amount of the release: |
| ☐ | If known, the number of fatalities; |
| ☐ | If known, the number of serious injuries; |
| ☐ | Estimated property damage at or outside the stationary source; and |
| ☐ | Whether the accidental release has resulted in an evacuation order impacting members of the general public and others, and, if known:<br>• The number of persons evacuated;<br>• Approximate radius of the evacuation zone; and<br>• (The type of person subject to the evacuation order (i.e., employees, members of the general public, or both). |

The report may be made by email to: report@csb.gov, or by telephone at 202-261-7600.


© The Response Group

### 5.7.9 Department of Transportation (DOT/PHMSA)

#### 5.7.9.1 Hazardous Liquid and Gas Operation Notifications

**PHMSA**
**202-366-4433**

| Reporting Requirements | |
|---|---|
| PHMSA expects notification to the NRC at the earliest possible moment after discovery of the following events. | |
| ☐ | A natural gas leak or hazardous liquid leak where the repair cost, including property damage, could exceed $50,000 or the release could meet or exceed 3 MMCF of gas or 5 gallons of hazardous liquid. |
| ☐ | Any injuries or fatalities that occur as a result of an event to which a company facility may have contributed. This is not dependent on a natural gas or hazardous liquid release. |
| ☐ | A natural gas release of unknown quantity through the ESD system or a relief valve that could meet or exceed 3 MMCF. A hazardous liquid release of 5 gallons or more, except that no report is required for release of less than 5 barrels if associated with maintenance work, unless other reporting criteria are met.<br>If the volume of gas or hazardous liquid released is not immediately known, contact Operational Compliance as soon as practical but no later than 1 hour following discovery of the event. |
| ☐ | An emergency shutdown of an LNG facility or underground natural gas storage facility. |
| ☐ | A release of any quantity of natural gas from company facilities that results in an evacuation. |
| ☐ | An observation of surface bubbles or sheen in waters in offshore water where company facilities are present. |
| ☐ | A release of any quantity of hazardous liquid that resulted in pollution of any stream, river, lake, reservoir, or other similar body of water. |
| ☐ | A circumstance where natural gas or hazardous liquids is not released but the event results in emergency responders arriving at the facility or garners attention from the public or media. |
| **Follow-up Report** | In addition to the reporting of accidents to the NRC, ***a written/electronic accident report*** (DOT/PHMSA F 7000-1 rev 7/2014, which can be found at http://www.phmsa.dot.gov, must be submitted as soon as practicable, but ***no later than 30 days*** after the incident for releases resulting in the following:<br>• Natural Gas of Hazardous Liquid Pipeline Facility |


© The Response Group

### 5.7.9.2 Hazardous Material Transportation Notifications

**PHMSA**
**202-366-4433**

| Reporting Requirements | |
|---|---|
| PHMSA expects notification to the NRC at the earliest possible moment whenever any of the following occurs during the course of transportation in commerce (including loading, unloading, and temporary storage): | |
| ☐ | As a direct result of a hazardous material -<br>• A person is killed;<br>• A person receives an injury requiring admittance to a hospital;<br>• The general public is evacuated for one hour or more;<br>• A major transportation artery or facility is closed or shut down for one hour or more; or<br>• The operational flight pattern or routine of an aircraft is altered |
| ☐ | Fire, breakage, spillage, or suspected radioactive contamination occurs involving a radioactive material |
| ☐ | Fire, breakage, spillage, or suspected contamination occurs involving an infectious substance other than a regulated medical waste |
| ☐ | A release of a marine pollutant occurs in a quantity exceeding 450 L (119 gallons) for a liquid or 400 kg (882 pounds) for a solid |
| ☐ | A situation exists of such a nature (e.g., a continuing danger to life exists at the scene of the incident) that, in the judgment of the person in possession of the hazardous material, it should be reported to the NRC |
| ☐ | During transportation by aircraft, a fire, violent rupture, explosion or dangerous evolution of heat (i.e., an amount of heat sufficient to be dangerous to packaging or personal safety to include charring of packaging, melting of packaging, scorching of packaging, or other evidence) occurs as a direct result of a battery or battery-powered device. |
| **Follow-up Report** | In addition to the reporting of accidents to the NRC above, a detailed report must be submitted on DOT Form F5800.1 within 30 days of discovery of the incident. See 49 CFR Part 172.16 for greater detail. |


© The Response Group

### 5.7.10 Additional Agency Contacts

| Additional Agency Contacts | | |
|---|---|---|
| Agency | Primary | Alternate |
| **Federal Agencies** | | |
| Federal Aviation Administration | 817-222-5006 | -- |
| National Transportation Safety Board | 800-682-9369 | -- |
| Dept. of Homeland Security - Hotline | 800-323-8603 | -- |
| National Transportation Safety Board Communications Center | 202-314-6290 | -- |


© The Response Group

# Section 6 Incident Management System

## 6.1 Incident Command System Structure

Coterra has adopted the National Incident Management System (NIMS) ICS organization as outlined in:
Homeland Security Presidential Directive Five (HSPD-5)
National Response Framework

All Federal, State, tribal, and local levels of government, as well as many private sector and non-governmental organizations use ICS for a broad spectrum of emergencies. These range from small to complex incidents, both natural and manmade, and include acts of catastrophic terrorism. The Company has adopted the NIMS ICS to allow the partnership of Unified Command to be developed when required in training, exercises or responses.

Note: The document, FEMA 501, National Incident Management System was referenced in the development of this document.

| ICS Organization | |
|---|---|
| The ICS is applicable across a spectrum of incidents that may differ in terms of size, scope, and complexity because of its: | |
| ✓ | A modular organizational structure that is extendable to incorporate all necessary elements. Responsibility and performance begin with the incident command element, the IC, and build from the top down. |
| ✓ | Functional unit management structure. |

| Functional Areas | |
|---|---|
| ICS is usually organized around five major functional areas: | |
| ✓ | Command. |
| ✓ | Operations. |
| ✓ | Planning. |
| ✓ | Logistics. |
| ✓ | Finance/Administration. |
| The IC will establish the sixth functional area, Intelligence/Security, based on the requirement of the situation at hand. | |


© The Response Group

| Transitional Steps | |
|---|---|
| Some of the more important transitional steps that are necessary to apply ICS in a field incident environment include the following: | |
| ✓ | Establish incident facilities as needed, strategically located, to support facility operations. |
| ✓ | Establish the use of common terminology for organizational functional elements, position titles, facilities, and resources. |
| ✓ | Rapidly evolve from providing oral direction to the development of a written Incident Action Plan (IAP). |
| ✓ | Recognize and anticipate the requirement that organizational elements will be activated and take the necessary steps to delegate authority as appropriate. |

| Modular Extension | |
|---|---|
| The modular concept is based on the following considerations: | |
| ✓ | Deactivate organizational elements no longer required. |
| ✓ | Develop the form of the organization to match the function or task to be performed. |
| ✓ | Observe recommended span-of-control guidelines. |
| ✓ | Perform the function of any non-activated organizational element at the next highest level. |
| ✓ | Staff only those functional elements that are required to perform the task. |

| Management Assignments | |
|---|---|
| The IC's initial management assignments will normally be one or more section chiefs to manage the major ICS functional areas. | |
| ✓ | Section chiefs will further delegate management authority for their areas as required. |
| ✓ | If needed, section chiefs may establish branches or units as appropriate for the section. |
| ✓ | Each functional unit leader will further assign individual tasks within the unit as needed. |
| ✓ | Section chiefs serve as the general staff for the IC. |


© The Response Group

| Staffing | |
|---|---|
| Use the separate sections to organize staff as the need arises. | |
| ✓ | Section chiefs will further delegate management authority for their areas as required. |
| ✓ | If needed, section chiefs may establish branches or units as appropriate for the section. |

| Leadership Titles | |
|---|---|
| ✓ | Incident Command; Incident Commander |
| ✓ | Command Staff; Officer |
| ✓ | Section; Section Chief |
| ✓ | Branch; Branch Director |
| ✓ | Divisions/Groups; and Supervisors (Supervisor is only used within the operations section). |
| ✓ | Unit; and Unit Leader (Applies to the subunits of the planning, logistics, and finance / administration sections). |

| Partners | |
|---|---|
| Several types of agencies could be in the Operations Section and work together or in combinations depending on the situation. | |
| ✓ | Fire |
| ✓ | Law enforcement |
| ✓ | Public health |
| ✓ | Public works |
| ✓ | Emergency services |
| ✓ | Etc. |
| Other participants may include private individuals, companies, or nongovernmental organizations, some of which may be fully trained and qualified to participate as partners in the operations section. | |


© The Response Group

| Tactical Operations | |
|---|---|
| The specific method selected for organizing and executing incident operations will depend on the: | |
| ✓ | Type of incident. |
| ✓ | Agencies involved. |
| ✓ | Objectives and strategies of the incident management effort. |

| Organization | |
|---|---|
| The organizational structure for incident tactical operations can vary and may be based on: | |
| ✓ | A method to accommodate jurisdictional boundaries. |
| ✓ | An approach that is strictly functional in nature. |
| ✓ | A mix of functional and geographical approaches. |

| Branches | |
|---|---|
| Establish branches for reasons such as: | |
| ✓ | The numbers of divisions and/or groups exceed the recommended span of control for the operations section chief. |
| ✓ | The nature of the incident calls for a functional branch structure. |
| ✓ | The incident is multi-jurisdictional. |

| Span of Control |
|---|
| The section chief shall set up branches and allocate divisions and groups within them to stay within the recommended span of control. (1 Supervisor per 7 people) |


© The Response Group

## 6.2 ICS Planning Cycle

The ICS planning Cycle is an ordered sequence of actions used to accomplish incident objectives.

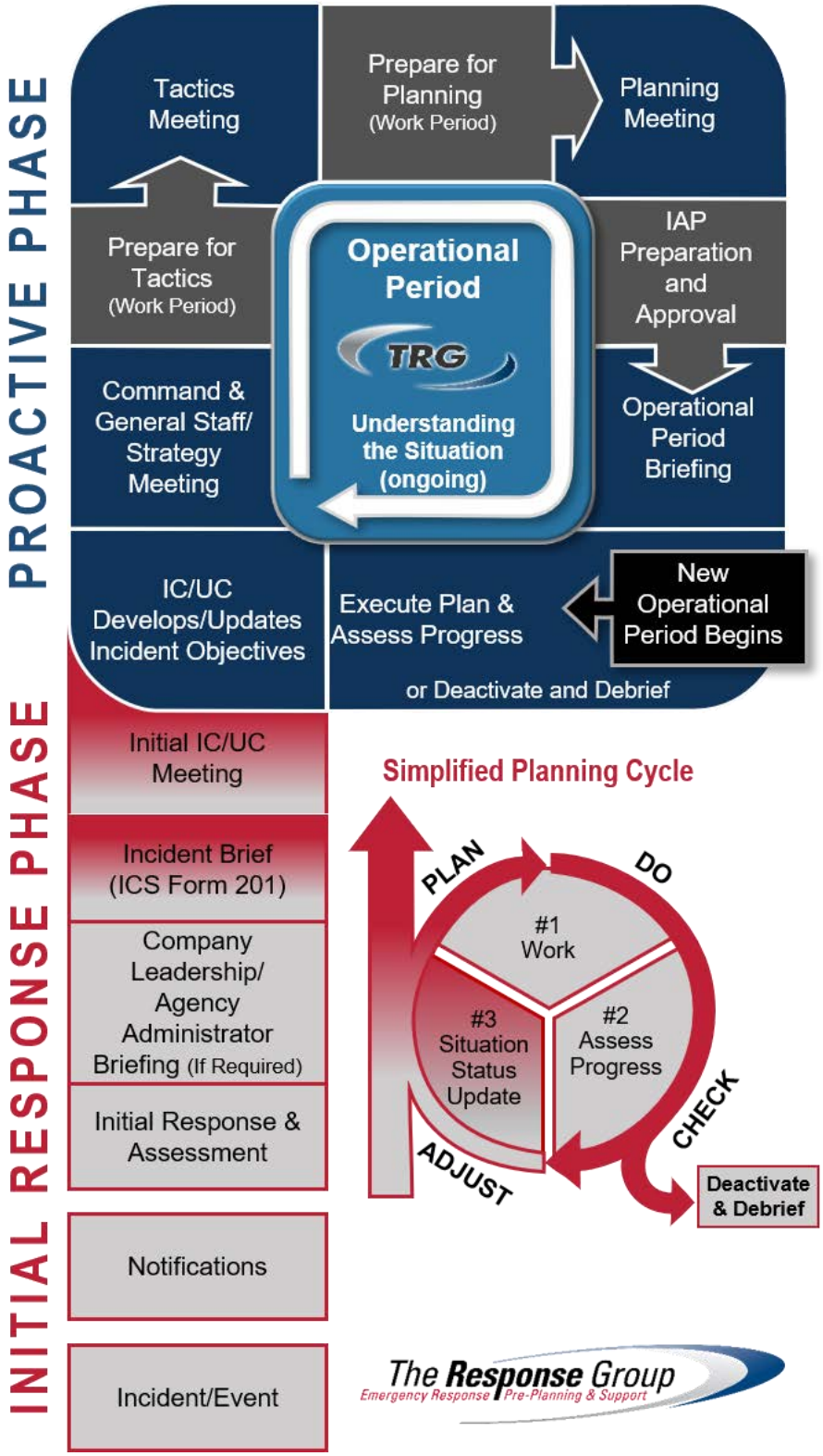
| Purpose of the ICS Planning Cycle | |
|---|---|
| ✓ | Activating a defined and scalable response management of each incident's unique characteristics. |
| ✓ | Define operational periods for planning and operations purposes to develop measurable strategies that contribute to the mitigation as the incident evolves. |
| ✓ | Dissemination response information including:<br>Response Objectives,<br>Resource status,<br>Situation Updates,<br>Safety requirements and advisories,<br>Evaluation of current response strategies; and<br>Revision of the above as the incident evolves. |
| ✓ | Establish incident objectives guiding the efforts of the IMT. |

As depicted on the ICS "Planning P" the ICS planning cycle is divided into two phases; Initial Response, and Operational Planning.

In a more complex Tier II or III emergency, planning for the next operational period will take place in the proactive phase. To manage the emergency a meeting schedule will be set by the IC. A detailed Incident Action Plan (IAP) will be developed through the meetings outlined in the Operational Planning description below. A more detailed description of the ICS Planning Cycle and its phases can be found in the Incident Management Handbook (IMH).


© The Response Group

## ICS Planning "P"





© The Response Group

The Initial Response phase of an incident is typically the most likely phase of concern because of the dangers associated with the initial approach and assessment of a release.

| Initial Response Phase | |
|---|---|
| ✓ | Incident Occurrence/ Discovery |
| ✓ | Notification |
| ✓ | Initial Response and Assessment |
| ✓ | Initial Incident Briefing ICS 201 form |
| ✓ | Assessment Meetings |
| ✓ | Initial Objectives Meeting |

The primary document developed during the Initial Response phase is the ICS 201 Incident Brief, with other ICS forms supplementing as they are developed and information is gathered. When management of an incident transitions from reactive to proactive response methods, the planning cycle moves to Operational Planning.

The transition from reactive to proactive incident management. If the Unified Command determines formal incident planning is needed the Unified Command presents the Command and General Staff of the IMT with initial incident objectives to move the planning cycle forward.

The Operational Planning phase of an incident allows further refinement of planning processes and alignment with day-to-day operations. Control objectives are refined for each operational period and are defined by specific strategies and tactics for response operations. Because an incident response is dynamic and evolves over time, objectives, tactics, resources needs, etc. are re-evaluated for each Operational Period.

| Proactive / Operational Planning Phase | |
|---|---|
| ✓ | Objectives Meeting |
| ✓ | Command and General Staff Meeting |
| ✓ | Tactics Meeting |
| ✓ | Planning Meeting |
| ✓ | Operations Briefing |

The primary document developed during operational planning is the Incident Action Plan (IAP).


© The Response Group

The planning cycle is timed so the operations briefing occurs just before the start of a new Operational Period, guided by the most recent developed IAP.

### 6.3 Coterra Incident Management Team Organization

The information in this section is an overview of the Command and General Staff positions of the Incident Management Team. For information on subordinate positions or in-depth role and responsibility checklists refer to the Incident Management Handbook (IMH).

All assigned personnel should review common responsibilities in addition to position-specific responsibilities when assigned a position on the IMT.

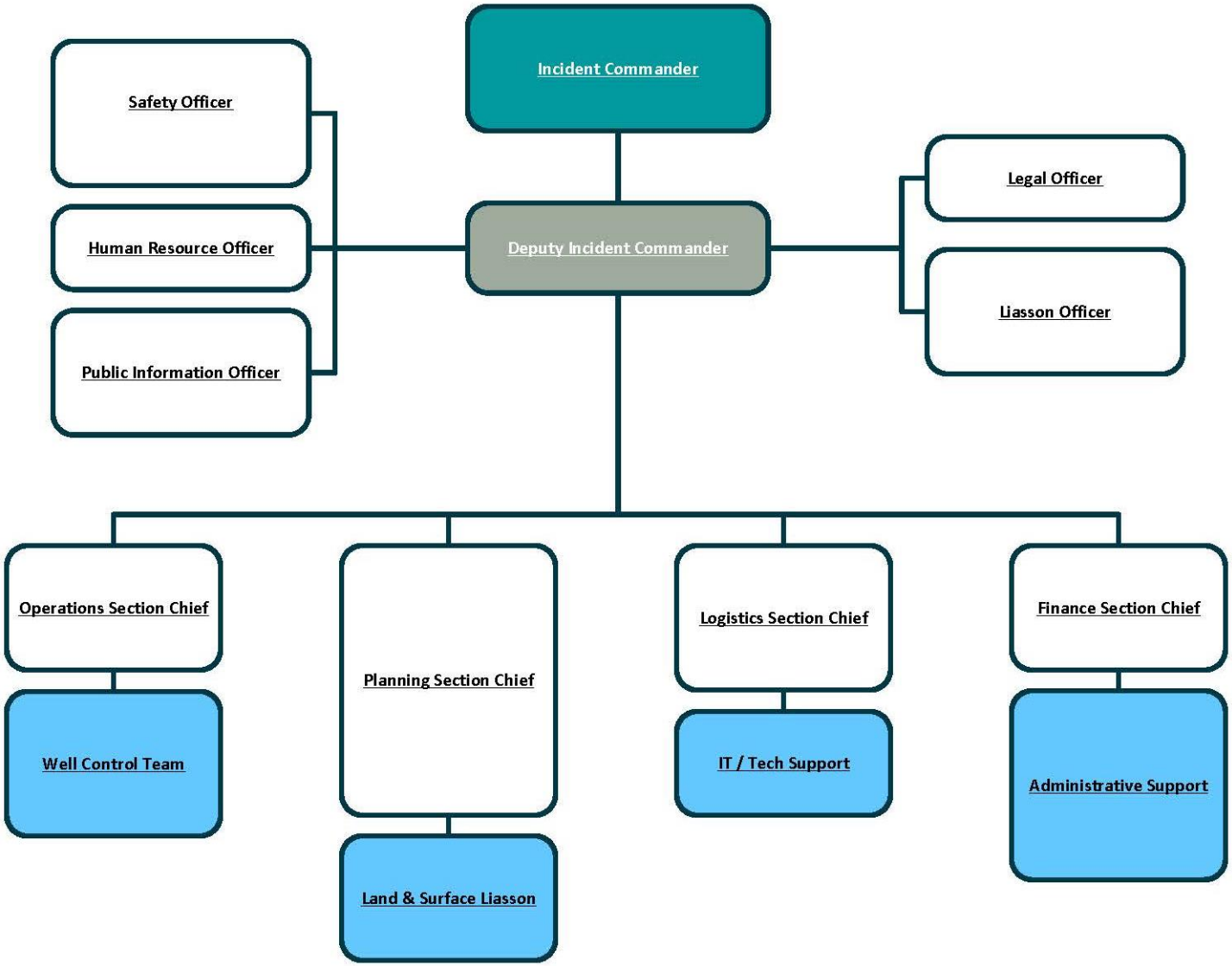
In addition to the position required ICS forms and response specific documentation, every member of the IMT should maintain an ICS 214a Individual Activity Log.

It is recommended to initiate a large response effort during initial response when exact resource and personnel requirements are unknown and/or fluid, and then scaling back when resources are no longer necessary for the response.

IMT Roster and contact information is in Section 5.


© The Response Group

## Coterra Incident Management Team Organization





© The Response Group

## 6.4 Common Responsibilities

| Common Responsibilities Checklist | |
|---|---|
| Receive assignment, including: | |
| ✓ | Job assignment (e.g., Strike Team designation, position, etc.). |
| ✓ | Brief overview of type and magnitude of incident. |
| ✓ | Resource order number and request number. |
| ✓ | Reporting location & time. |
| ✓ | Travel instructions. |
| ✓ | Any special communications instructions (e.g., travel, radio frequency). |
| ✓ | Monitor incident related information from media, internet, etc., if available |
| ✓ | Assess personal equipment readiness for specific incident and climate (e.g., medications, money, computer, medical record, etc.). Maintain a checklist of items and possibly a personal Go-Kit. |
| ✓ | Inform others as to where you are going and how to contact you. |
| ✓ | Review Incident Management Handbook. |
| ✓ | Take advantage of available travel to rest prior to arrival. |
| Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations: | |
| ✓ | Incident Command Post (ICP), Base/Camps, Staging Areas, Helibases |
| ✓ | If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor. |
| ✓ | Receive briefing from immediate supervisor. |
| ✓ | Agency Representatives from assisting or cooperating agencies report to the Liaison Officer (LNO) at the ICP after check-in. |
| ✓ | Acquire work materials. |
| ✓ | Abide by organizational code of ethics. |
| ✓ | Participate in IMT meetings and briefings as appropriate. |
| ✓ | Ensure compliance with all safety practices and procedures. Report unsafe conditions to the Safety Officer. |
| ✓ | Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations. |
| ✓ | Organize and brief subordinates. |
| ✓ | Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly. |
| ✓ | Use clear text and ICS terminology (no codes) in all radio communications. |
| ✓ | Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit. |
| ✓ | Ensure all equipment is operational prior to each work period. |


© The Response Group

| Common Responsibilities Checklist | |
|---|---|
| ✓ | Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor. |
| ✓ | Respond to demobilization orders and brief subordinates regarding Demobilization. |
| ✓ | Prepare personal belongings for demobilization. |
| ✓ | Return all assigned equipment to appropriate location. |
| ✓ | Complete Demobilization Check-out process before returning to home base. |
| ✓ | Participate in After-Action activities as directed. |
| ✓ | Carry out all assignments as directed. |

## 6.5 Roles and Responsibilities Checklist

Listed below is a list of common roles that fall within the Coterra IMT structure. In addition to the list below, Coterra maintains an Incident Management Handbook which contains a complete list of all positions, roles, and responsibilities within the companies IMT structure.

### 6.5.1 Incident Commander

| Incident Commander and Deputy IC Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Obtain a briefing from the prior IC (201 Briefing). |
| ✓ | Determine Incident Objectives & general direction for managing the incident. |
| ✓ | Establish the immediate priorities. |
| ✓ | Establish an ICP. |
| ✓ | Brief Command Staff and General Staff. |
| ✓ | Establish an appropriate organization. |
| ✓ | Ensure planning meetings are scheduled as required. |
| ✓ | Approve and authorize the implementation of an IAP. |
| ✓ | Ensure that adequate safety measures are in place. |
| ✓ | Coordinate activity for all Command and General Staff. |
| ✓ | Coordinate with key people and officials. |
| ✓ | Approve requests for additional resources or for the release of resources. |
| ✓ | Keep agency administrator informed of incident status. |
| ✓ | Approve the use of trainees, volunteers, and auxiliary personnel. |
| ✓ | Authorize release of information to the news media. |
| ✓ | Ensure ICS 209 is completed and forwarded to appropriate higher authority. |
| ✓ | Order the demobilization of the incident when appropriate. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |


© The Response Group

### 6.5.2 ICS Technical Specialist

| ICS Technical Specialist Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Determine site specific training requirements and need for a training program. |
| ✓ | Develop site specific training program and implement as necessary. |
| ✓ | Determine the feasibility of using trainees in the response. |
| ✓ | Review trainee assignments and modify if appropriate. |
| ✓ | Coordinate the assignments of trainees to incident positions with the Resources Unit. |
| ✓ | Keep the Safety Officer apprised of status of compliance with training requirements. |
| ✓ | Make follow-up contacts in the field to provide assistance and advice for trainees to meet training objectives, as appropriate, and with approval of Unit Leaders to ensure trainees receive performance evaluation. |
| ✓ | Monitor operational procedures and evaluate training needs. |
| ✓ | Respond to requests for information concerning training activities. |
| ✓ | Give the Training Specialist records and logs to the Documentation Unit at the end of each operational period. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |

### 6.5.3 Safety Officer

| Safety Officer Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Participate in tactics and planning meetings, and other meetings and briefings as required. |
| ✓ | Identify hazardous situations associated with the incident. |
| ✓ | Review the IAP for safety implications. |
| ✓ | Provide safety advice in the IAP for assigned responders. |
| ✓ | Exercise emergency authority to stop and prevent unsafe acts. |
| ✓ | Investigate accidents that have occurred within the incident area. |
| ✓ | Assign assistants, as needed. |
| ✓ | Review and approve the medical plan (ICS Form 206). |
| ✓ | Develop the Site Safety Plan and publish Site Safety Plan summary (ICS Form 208) as required. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |


© The Response Group

### 6.5.4 Public Information Officer

| Public Information Officer Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Determine from the IC if there are any limits on information release. |
| ✓ | Develop material for use in media briefings. |
| ✓ | Obtain IC approval of media releases. |
| ✓ | Inform media and conduct media briefings. |
| ✓ | Arrange for tours and other interviews or briefings that may be required. |
| ✓ | Manage a Joint Information Center (JIC) if established. |
| ✓ | Obtain media information that may be useful to incident planning. |
| ✓ | Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |

### 6.5.5 Liaison Officer

| Liaison Officer Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Be a contact point for Agency Representatives. |
| ✓ | Maintain a list of assisting and cooperating agencies and Agency Representatives, including name and contact information. Monitor check-in sheets daily to ensure that all Agency Representatives are identified. |
| ✓ | Assist in establishing and coordinating interagency contacts. |
| ✓ | Keep agencies supporting the incident aware of incident status. |
| ✓ | Monitor incident operations to identify current or potential inter-organizational problems. |
| ✓ | Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources. |
| ✓ | Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the On-Scene Coordinator (OSC) during oil and HAZMAT responses. |
| ✓ | Coordinate response resource needs for incident investigation activities with the OSC. |
| ✓ | Ensure that all required agency forms, reports and documents are completed prior to demobilization. |
| ✓ | Brief Command on agency issues and concerns. |
| ✓ | Have debriefing session with the IC prior to departure. |
| ✓ | Coordinate activities of visiting dignitaries. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |


© The Response Group

### 6.5.6 Legal Officer

| Legal Officer Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Obtain briefing from the Incident Commander. |
| ✓ | Advise the Incident Commander (IC) and the Unified Command, as appropriate, on all legal issues associated with response operations. |
| ✓ | Establish documentation guidelines for and provide advice regarding response activity documentation to the response team. |
| ✓ | Provide legal input to the Documentation Unit, the Compensation/Claims Unit, and other appropriate Units as requested. |
| ✓ | Review press releases, documentation, contracts, and other matters that may have legal implications for the Company. |
| ✓ | Participate in ICS planning cycle meetings and other meetings, as requested. |
| ✓ | Participate in incident investigations and the assessment of damages (including natural resource damage assessments). |
| ✓ | Maintain Individual/Activity Log (ICS Form 214a). |

| Intelligence/Security Officer Checklist (assigned as needed) | |
|---|---|
| ✓ | Collect and analyze incoming intelligence information from all sources. |
| ✓ | Determine the applicability, significance, and reliability of incoming intelligence information. |
| ✓ | As requested, provide intelligence briefings to the IC/UC. |
| ✓ | Provide intelligence briefings in support of the ICS Planning Cycle. |
| ✓ | Provide Situation Unit with periodic updates of intelligence issues that impact consequence management operations. |
| ✓ | Answer intelligence questions and advise Command and General Staff as appropriate. |
| ✓ | Supervise, coordinate, and participate in the collection, analysis, processing, and dissemination of intelligence. |
| ✓ | Assist in establishing and maintaining systematic, cross-referenced intelligence records and files. |
| ✓ | Establish liaison with all participating law enforcement agencies including Federal, State and Local agencies. |
| ✓ | Conduct first order analysis on all incoming intelligence and fuse all applicable incoming intelligence with current intelligence holdings in preparation for briefings. |
| ✓ | Prepare all required intelligence reports and plans. |
| ✓ | As the incident dictates, determine need to implant Intelligence Specialists in the Planning and Operations Sections. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |


© The Response Group

### 6.5.5 Operations Section Chief

| Operations Section Chief Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Obtain briefing from IC. |
| ✓ | Request sufficient Section supervisory staffing for both ops & planning activities. |
| ✓ | Convert operational incident objectives into strategic and tactical options through a work analysis matrix. |
| ✓ | Coordinate and consult with the PSC, SOFR technical specialists, modeling scenarios, trajectories, etc., on selection of appropriate strategies and tactics to accomplish objectives. |
| ✓ | Identify kind and number of resources required to support selected strategies. |
| ✓ | Subdivide work areas into manageable units. |
| ✓ | Develop work assignments and allocate tactical resources based on strategy requirements. |
| ✓ | Coordinate planned activities with the SOFR to ensure compliance with safety practices. |
| ✓ | Prepare ICS 234 Work Analysis Matrix with PSC to ensure Strategies & Tactics and task are in line with ICS 202 Response Objectives to develop ICS 215. |
| ✓ | Participate in the planning process and the development of the tactical portions (ICS 204 and ICS 220) of the IAP. |
| ✓ | Assist with development of long-range strategic, contingency, and demobilization plans. |
| ✓ | Supervise Operations Section personnel. |
| ✓ | Monitor need for and request additional resources to support operations as necessary. |
| ✓ | Coordinate with the LOFR and AREP's to ensure compliance with approved safety practices. |
| ✓ | Evaluate and monitor current situation for use in next operational period planning. |
| ✓ | Interact and coordinate with Command on achievements, issues, problems, significant changes special activities, events, and occurrences. |
| ✓ | Troubleshoot operational problems with other IMT members. |
| ✓ | Supervise and adjust operations organization and tactics as necessary. |
| ✓ | Participate in operational briefings to IMT members as well as briefings to media, and visiting dignitaries. |
| ✓ | Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate. |
| ✓ | Receive and implement applicable portions of the incident Demobilization Plan. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |


© The Response Group

### 6.5.6 Planning Section Chief

| Planning Section Chief Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Collect, process, and display incident information. |
| ✓ | Assist OSC in the development of response strategies. |
| ✓ | Supervise preparation of the IAP. |
| ✓ | Facilitate planning meetings and briefings. |
| ✓ | Assign personnel already on-site to ICS organizational positions as appropriate. |
| ✓ | Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation). |
| ✓ | Determine the need for any specialized resources in support of the incident. |
| ✓ | Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.). |
| ✓ | Assemble information on alternative strategies. |
| ✓ | Provide periodic predictions on incident potential. |
| ✓ | Keep IMT apprised of any significant changes in incident status. |
| ✓ | Compile and display incident status information. |
| ✓ | Oversee preparation and implementation of the Incident Demobilization Plan. |
| ✓ | Incorporate plans (e.g., Traffic, Medical, Communications, and Site Safety) into the IAP. |
| ✓ | Develop other incident supporting plans (e.g., salvage, transition, security). |
| ✓ | Assist Operations with development of the ICS 234 Work Analysis Matrix. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |


© The Response Group

### 6.5.7 Logistics Section Chief

| Logistics Section Chief Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Plan the organization of the Logistics Section. |
| ✓ | Assign work locations and preliminary work tasks to Section personnel. |
| ✓ | Notify the Resources Unit of the Logistics Section Units activated, including names and locations of assigned personnel. |
| ✓ | Assemble and brief Logistics Branch Directors and Unit Leaders. |
| ✓ | Determine and supply immediate incident resource and facility needs. |
| ✓ | In conjunction with Command, develop and advise all Sections of the IMT resource approval and requesting process. |
| ✓ | Review proposed tactics for upcoming operational period for ability to provide resources and logistical support. |
| ✓ | Identify long-term service and support requirements for planned and expected operations. |
| ✓ | Advise Command and other Section Chiefs on resource availability to support incident needs. |
| ✓ | Provide input to and review the Communications Plan, Medical Plan and Traffic Plan. |
| ✓ | Identify resource needs for incident contingencies. |
| ✓ | Coordinate and process requests for additional resources. |
| ✓ | Track resource effectiveness and make necessary adjustments. |
| ✓ | Advise on current service and support capabilities. |
| ✓ | Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate. |
| ✓ | Receive and implement applicable portions of the incident Demobilization Plan. |
| ✓ | Ensure the general welfare and safety of Logistics Section personnel. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |


© The Response Group

### 6.5.8 Finance Section Chief

| Finance Section Chief Checklist | |
|---|---|
| ✓ | Review Common Responsibilities. |
| ✓ | Participate in incident planning meetings and briefings as required. |
| ✓ | Review operational plans and provide alternatives where financially appropriate. |
| ✓ | Manage all financial aspects of an incident. |
| ✓ | Provide financial and cost analysis information as requested. |
| ✓ | Gather pertinent information from briefings with responsible agencies. |
| ✓ | Develop an operating plan for the Finance/Admin Section; fill supply and support needs. |
| ✓ | Determine the need to set up and operate an incident commissary. |
| ✓ | Meet with Assisting and Cooperating Agency Representatives, as needed. |
| ✓ | Maintain daily contact with agency(s) administrative headquarters on Finance/Admin matters. |
| ✓ | Ensure that all personnel time records are accurately completed and transmitted to home agencies, according to policy. |
| ✓ | Provide financial input to demobilization planning. |
| ✓ | Ensure that all obligation documents initiated at the incident are properly prepared and completed. |
| ✓ | Brief agency administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident. |
| ✓ | Develop recommended list of Section resources to be demobilized and initial recommendation for release when appropriate. |
| ✓ | Receive and implement applicable portions of the incident Demobilization Plan. |
| ✓ | Maintain Individual/Activity Log (ICS 214a). |


© The Response Group

# Section 7 Media Relations

Interaction with the media is an important part of Coterra Energy Inc. (Coterra) response to any incident and should not be taken lightly. Communication and public affairs are best suited by those persons trained in dealing with the media. There will be times when it is not practical to refer all questions from the media and public to the External Affairs Department. In the event a response is needed, a short and factual response may be provided in accordance with the Media Interaction-Primary Advanced Holding Statement and Updated Advanced Holding Statement in Section 3.13 and 3.14 of the Coterra EHS Manual.

## 7.1 Media Contacts

Notifications regarding an incident and associated media inquiry should follow the following process.

| If the press or media arrive on scene, please follow the procedures below: | | |
|---|---|---|
| Immediately contact: | | |
| Name | Office | Cell |
| Bill DesRosiers | Susquehanna | 412-956-5742 |
| George Stark | Pittsburgh | 412-551-6616 |
| On-Call EHS Department | Susquehanna | 570-737-4260 |

If you cannot reach any of the individuals above, contact your foreman or supervisor for further assistance.

## 7.2 Media Policy

It is the policy of Coterra that the External Affairs Department coordinates interaction with the media. Employees should be mindful of their signed nondisclosure agreements and use discretion in all media interactions (e.g., social media, etc.). In certain situations, it may be necessary for employees to interact with the media. Employees outside of the External Affairs Department should refer to Coterra Policy EHS-2.43 and should follow the below guidelines.


© The Response Group

### 7.2.1 General Guidelines for Media Interaction

| General Guidelines for Media Interaction | |
|---|---|
| ✓ | Do not ignore the media if they approach you. |
| ✓ | Always treat the media with respect and courtesy. |
| ✓ | Refer media to the proper Coterra spokesperson. |
| ✓ | Do not make any comments about the incident without approval from Coterra spokesperson. |
| ✓ | Individuals assigned to guard duty should be courteous, as they will generally be the first Coterra representatives with whom reporters and photographers will have contact. When press representatives ask guards at the facility or lease gates for permission to enter, the guards will tell them, as politely as possible, that they do not have the authority to grant such permission and will suggest that, for official information, they talk to the Public Relations representative who will be at the scene of the emergency. |
| ✓ | Reporters, photographers, and other unauthorized personnel are not to be permitted to be on the lease or near the facility during an emergency. |
| ✓ | There is to be no Company interference with reporters and photographers who are not on Company property. Photographers have rights to take photographs from public highways, and railroad property. |
| ✓ | Unless designated by management, questions or inquiries by the media should be directed to the External Affairs Department. |
| ✓ | If approved to provide a statement to the media, always provide accurate information and never speculate. |

### 7.2.2 General Guidelines for Release of Information to Media

| All information released will be handled in accordance with the following policy: | |
|---|---|
| ✓ | Formal statements to the media will always be made by the Director of External Affairs, Executive Management, their designee, or by a Corporate Officer. |
| ✓ | In the event of injuries or loss of life, the names will be withheld until the next of kin is notified. |
| ✓ | **IF APPROVED TO PROVIDE A STATEMENT TO THE MEDIA, OUR REPRESENTATIVES MUST NOT DO ANY GUESSING OR SPECULATING**. They must state only established facts. Say no more than what is needed. Whenever it is evident that the reporter is trying to make a sensation out of the incident to represent the danger or loss as being greater than it is, our representatives are to state the facts as they are. |


© The Response Group

### 7.3 Example - Emergency Communication – For External Affairs Department Only

## Initial Verbal Media Response

(see Coterra Policy EHS-2.43 and Advanced Holding Statement in Policy 3.13)

My name is _____ (name)

and I serve as _____ (title)

for Coterra Energy Inc.

At approximately _____ (time) on _____ (date)

an incident occurred at the
company facility located at _____ (location)

Emergency responders have been contacted and response efforts are underway.

These are the details currently available about the incident:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Our efforts are aimed at responding to the incident, ensuring the safety of those currently at the incident site, and safeguarding persons and property near or around the incident site.

Coterra Energy takes every issue involving people and the environment very seriously.

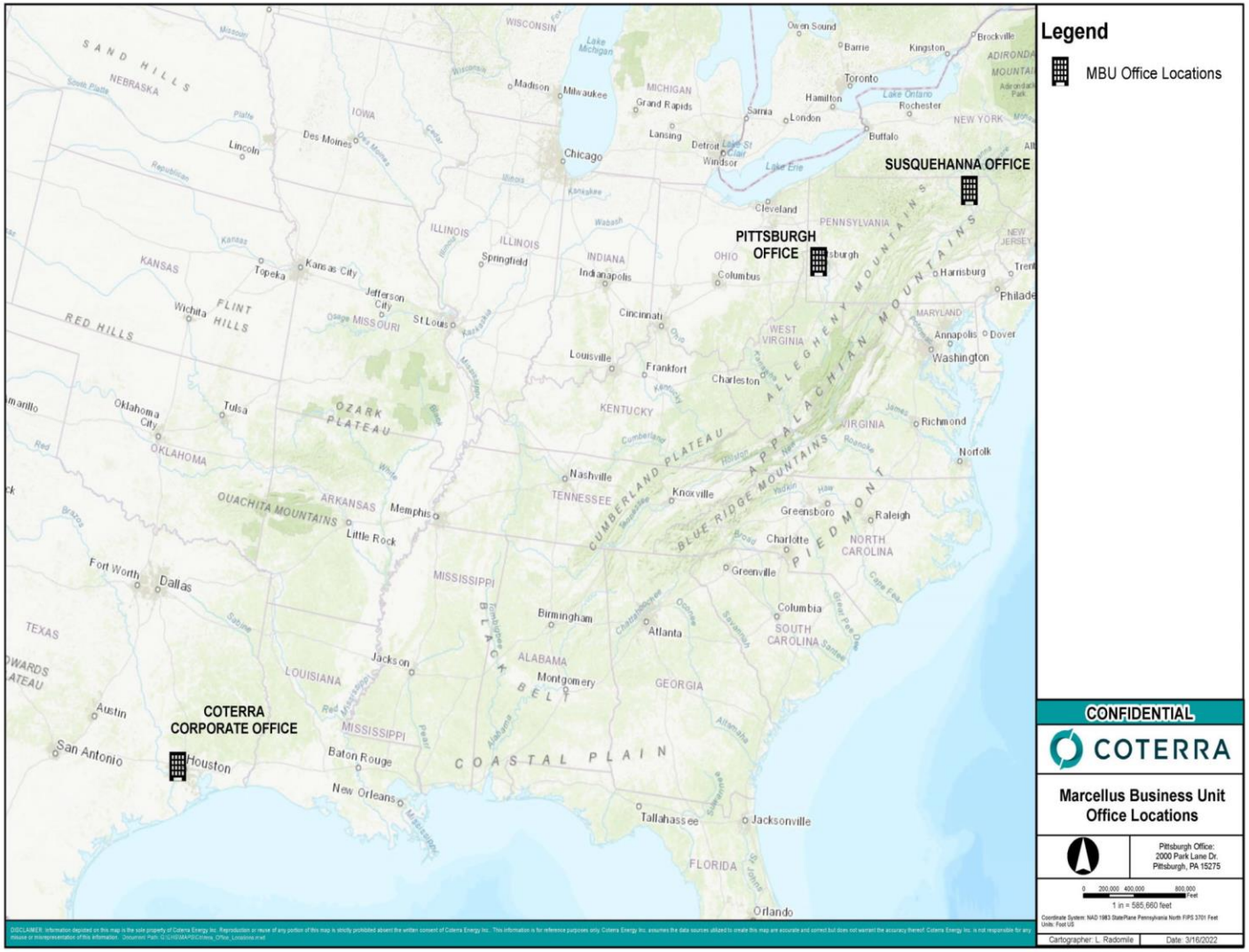
Any questions about the cause or causes of the incident are premature at this time.

We plan to provide an update to you as more information becomes available.


© The Response Group

# Section 8 Operational Maps

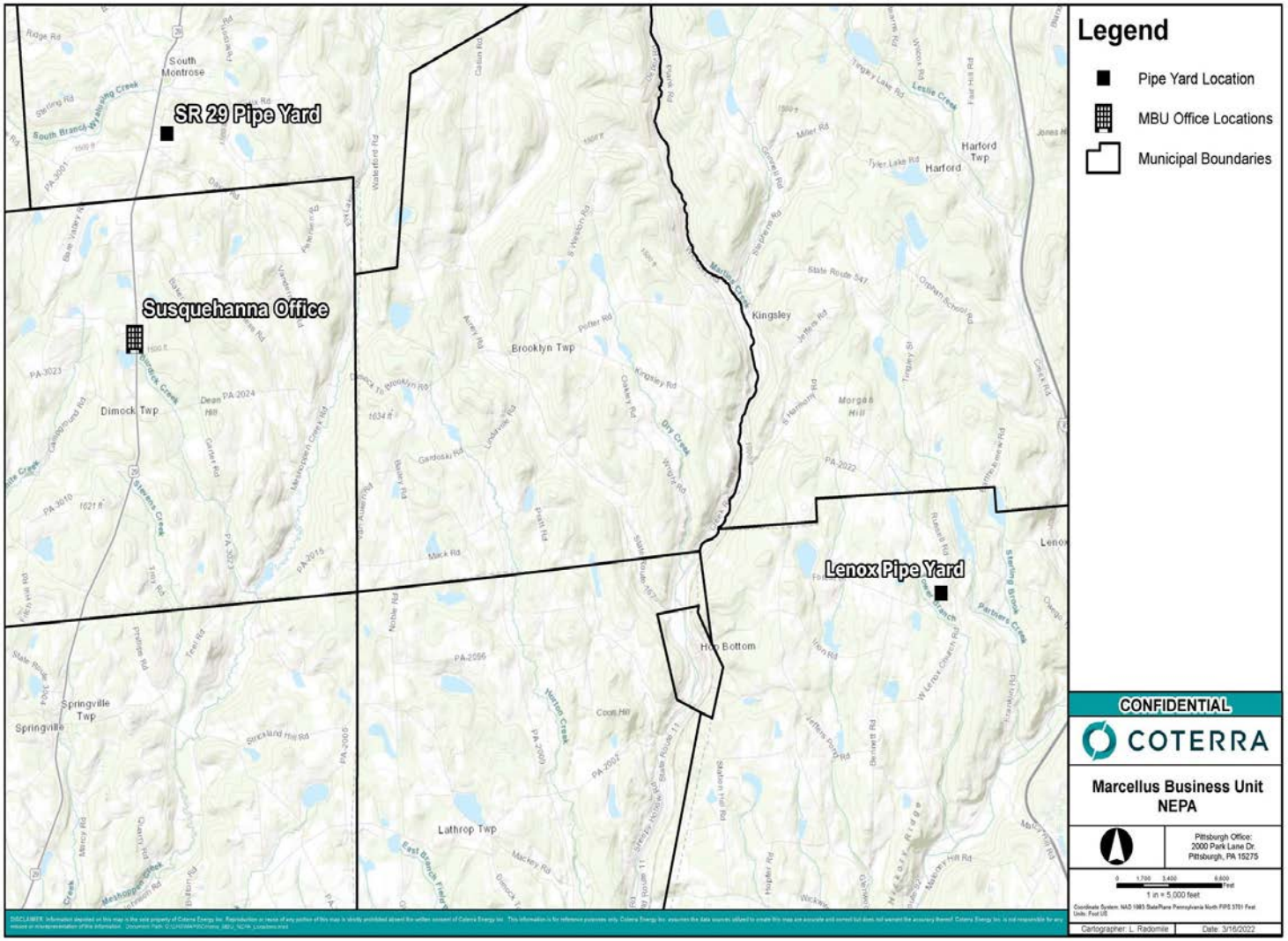
## 8.1 Marcellus BU Locations





© The Response Group

## 8.2 Marcellus BU NEPA Locations





© The Response Group

## 8.3 Marcellus BU NEPA - Facility Locations

Facility locations can be accessed by utilizing the Coterra MBU GIS Portal Maps on a Coterra employees' computer or the response coterra.com website via QR code or link. In the event of an emergency, it is recommended that users utilize the Emergency Response Web App on the Coterra MBU GIS Portal.

The Site-Specific Emergency Response Plan is available at the well site electronically and/or will be located in the document storage device (i.e., mailbox) at each well site, include an Emergency Response Plan - Site Specific Information Sheet/Figure. These figures identify the facility location as well as potential risks and hazards to the public and other receptors within ½-mile of the facility.


© The Response Group

# Section 9 Training & Exercise

## 9.1 Training

### 9.1.1 Training Criteria

Training for all Incident Management Team Members is recommended to be performed on an annual basis.

New personnel will be trained on the contents of this Plan prior to initiation of the activities identified in this Plan.

At least once a year, personnel are given a refresher training to discuss spill prevention procedures. The refresher training highlights and describes any known discharges or failures, malfunctioning components, and recently developed precautionary measures.

### 9.1.2 Incident Management Team Training

The following table provides information that should be incorporated into the training modules for the Incident Management Team (IMT). The material should not be considered all-inclusive. Team members receiving this training will have an educational foundation to help them play a proactive role in the incident. It is recommended that this training be performed on an annual basis.

| Incident Management Team Members | |
|---|---|
| ✓ | Notification procedures/requirements for facility operations, internal response organization, national and regional authorities, contractors, and the information required for those organizations. |
| ✓ | Communication system used for the notifications and response. |
| ✓ | IMT Roles and Responsibilities. |
| ✓ | IMT Incident Command Post (ICP) Facility. |
| ✓ | Information on the products stored, used, or transferred by the facility/site including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, spill, and firefighting procedures. |
| ✓ | Potential incident scenarios and response procedures. |
| ✓ | The operational capabilities of the contractors to respond to different types of incidents and how to manage them. |
| ✓ | Know and be able to implement the Incident Command System. |
| ✓ | Know how to implement the emergency response plan. |


© The Response Group

### 9.1.3 Training and Awareness – Coterra Employees

Coterra provides the necessary resources to its employees and contractors to perform their job safely, effectively, and efficiently. Through formal training and on-the-job mentoring, Coterra educates employees about potential hazards associated with the job, equips them with the tools to assess and mitigate those hazards, and empowers them to make the best decisions that will keep themselves and their coworkers safe.

Coterra holds monthly safety meetings and provides required Occupational Safety and Health Administration (OSHA) training and refresher courses. In addition, Coterra promotes industry best management practices and addresses local needs. For example, Coterra subscribes to the American Petroleum Institute (API) Compass online platform which provides employees with access to API consensus standards and recommended practices. These documents are shared across the enterprise to ensure all employees have the most up to date standards and practices. Monthly field safety meetings also cover pertinent issues such as fatigue, control of hazardous energy, hazard communication, hot work, confined spaces, distracted driving, among other topics.

### 9.1.4 Training and Awareness – Contractors

Coterra contractors must execute a Master Service Agreement (MSA), which contractually obligates them to review and comply with Coterra's Contractor Responsibilities section of the EHS Manual. The MSA also requires contractors to immediately report to Coterra all details of any near miss, injury, illness, property damage and/or environmental impact and to fully cooperate in all remedial activities in order to restore and protect the environment.

All contractors are required to participate in the ISNetworld contractor verification program. This industry leading safety verification process allows us to screen contractors based on their safety performance in relation to their peers. Our master service agreements with our contractors include language requiring contractors to provide their employees with appropriate safety equipment and training, as well as to adhere to all applicable environmental and safety regulations.

As part of Coterra's commitment to providing a safe operation, contractors are required to complete a verification and review process. This process consists of contractor employee interviews and contractor management interviews which are designed to identify gaps in the contractor's EHS program. Based on these reviews, action items are developed and verification of completed action items are required.

Coterra also holds quarterly contractor meetings to discuss EHS performance metrics and trends, risk mitigation and lessons learned. Subject matter experts and local regulatory agencies may present on EHS related topics at these meetings. The sharing of these lessons learned with our contractors provides knowledge to prevent similar incidents from reoccurring, thus creating a safer work environment for all.


© The Response Group

### 9.1.5 Training Documentation

All Coterra training shall be documented and training files for each affected employee will be maintained on file in accordance with Coterra Records Retention and Disposal Policy (Legal-001).

## 9.2 Exercise/Drills

Coterra requires exercises to ensure effectiveness of the written emergency response / support plan(s) and the capability of the response team(s). As a result, the company IMT will develop and maintain a multi-year program.

Exercises will simulate scenarios and risks identified in the company's Emergency Response Plan. Exercises should include all activated elements of the IMT and should present a variety of problems that should challenge all segments of the IMT.

### 9.2.1 Tabletop Exercise

A Tabletop Exercise is an informal gathering of appropriate incident response team personnel to discuss incident response/management issues. The intent of a tabletop exercise is to allow the participants to evaluate plans, procedures, policies and resolve issues of coordination, assignment of responsibilities, interaction between departments and organizations, etc. in a non-threatening environment and under a minimum of stress.

### 9.2.2 Functional Exercise

A Functional Exercise is designed to focus on testing and evaluating centralized emergency operations capabilities and the response of the various units of government, private industry, and volunteer organizations in a simulated, real-time environment. This level of exercise involves (1) EOC personnel who carry out actions and coordination as though the incident were real; (2) a team of controllers and simulators who track exercise events and related objective assessment and represent the incident, responding field units, levels of government not active in the exercise; (3) a team of evaluators who assess operational capabilities based on required criteria for successful performance based on the emergency response plan.

### 9.2.3 Full Scale Exercise

The Full-Scale Exercise is designed to test and evaluate the operational capability of emergency management systems in an inter-active manner. The full-scale exercise includes all the components of the functional exercise with the addition of the actual responding field units and personnel. This level of exercise activity should test all components of the emergency management system that would be involved in the response given the scenario selected for the exercise.

The impact on a community from an incident can be greatly reduced by having good communication between the company and all the stakeholders (neighbors, emergency response personnel and local officials).


© The Response Group

| Exercises should be designed to: | |
|---|---|
| ✓ | Test the IMT's ability to act as expected and required to emergencies that could occur within the District. |
| ✓ | Provide response personnel with an opportunity to apply their training and exercise/get comfortable with their roles & responsibilities and the Incident Management System. |
| ✓ | Identify gaps, limitations, and areas of concern to address with the response team, plans, equipment, and response tools. |
| ✓ | Build on lessons learned from previous experience from previous drills or actual spill response events. |

### 9.2.4 Documentation

Following any exercise or actual incident, the company IMT will conduct a critique to determine how the response went, how the ERP was used and followed, and if any improvements could be made. All improvements should be and provided to the primary contact for the ERP listed in **Section 2.3**, Plan Review.

| Exercise documentation should include the following: | |
|---|---|
| ✓ | Type of exercise/response |
| ✓ | Date and time of exercise/response |
| ✓ | Description of exercise/response |
| ✓ | Objectives met |
| ✓ | Lessons learned |


© *The Response Group*

# Section 10 Forms

## 10.1 Bomb Threat Checklist

***Look for caller ID number on phone and write down.***

| Bomb Threat Checklist | |
|---|---|
| **Incident:** | **Prepared By:** |
| **Period:** | **Version Name:** |
| **Time and Date Reported:** | |
| **Who Reported:** | |
| **Caller Name:** | |
| **Exact Words of Caller:** | |
| **Time Call Ended:** | |

| Questions to Ask | |
|---|---|
| **When is the bomb going to explode?** | |
| **Where is the bomb right now?** | |
| **What kind of bomb is it?** | |
| **What does it look like?** | |
| **Why did you place the bomb?** | |
| **Where are you calling from?** | |

**Description of Callers Voice**

❑ Male ❑ Female ❑ Young ❑ Middle Aged ❑ Old ❑ Accent

| Voice | Speech | Language | Accent | Manner | Background Noises |
|---|---|---|---|---|---|
| ❑ Loud<br>❑ High Pitch<br>❑ Raspy<br>❑ Intoxicated<br>❑ Clearing Throat<br>❑ Soft<br>❑ Deep<br>❑ Pleasant<br>❑ Deep Breathing | ❑ Fast<br>❑ Distinct<br>❑ Stutter<br>❑ Slurred<br>❑ Slow<br>❑ Distorted<br>❑ Nasal<br>❑ Other: | ❑ Excellent<br>❑ Fair<br>❑ Foul<br>❑ Educated<br>❑ Good<br>❑ Poor<br>❑ Other: | ❑ Local<br>❑ Foreign<br>❑ Not Local<br>❑ Regional<br><br>Explain: | ❑ Calm<br>❑ Rational<br>❑ Coherent<br>❑ Deliberate<br>❑ Righteous<br>❑ Angry<br>❑ Irrational<br>❑ Incoherent<br>❑ Emotional<br>❑ Coughing | ❑ Office Machinery<br>❑ Factory Machinery<br>❑ Bedlam<br>❑ Animals<br>❑ Quiet<br>❑ Mixed<br>❑ Music<br>❑ Street Traffic<br>❑ Airplanes<br>❑ Trains<br>❑ Voices<br>❑ Party<br>❑ Atmosphere<br>❑ Shopping Mall |

**Call Recipient Information**

| | |
|---|---|
| **Call Recipient(s):** | |

**Notes:**


© *The Response Group*

## 10.2 Initial ICS Forms – Reactive Phase

### 10.2.1 Weather Report

| **Weather Report** | | Version Name: | |
|---|---|---|---|
| Incident Name: | | Period: / / : to / / : | |
| ***Present Conditions*** | | | |
| ***Weather Conditions as of (Date/Time):*** | | | |
| ***Wind Speed:*** | | ***Wind Direction:*** | |
| ***Temperature:*** | | ***Feels Like:*** | |
| ***Dew Point*** | | ***Pressure*** | |
| ***Visibility:*** | | ***UV Index:*** | |
| ***Ceiling:*** | | ***Humidity:*** | |
| ***Nautical Data*** | | | |
| ***Current Speed:*** | | ***Current Direction*** | |
| ***Wave Height*** | | ***Wave Direction:*** | |
| ***Swell Height:*** | | ***Swell Interval:*** | |
| ***Water Temperature:*** | | | |
| ***Notes:*** | | | |

| ***Forecast Date*** | ***Wind*** | ***Temp Hi/Lo*** | ***% Precip*** | ***Sunrise/ Sunset*** | ***Notes:*** |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| ***Tides*** | | |
|---|---|---|
| High/Low Tide | Date & Time of Tide | Height |
| | | |
| | | |
| | | |

| **Weather Report** | Prepared By: | At: / / : |
|---|---|---|
| INCIDENT ACTION PLAN SOFTWARE™ | Page of | The Response Group © 1997-2024 |

### 10.2.2 Notification Status Report

| **Notification Status Report** | Version Name: |
|---|---|
| Incident Name: | Period: / / : to / / : |

***External***

| *Organization Notified* | *Phone* | *Date/Time Notified* | *Person Contacted/Email* | *Notified By* | *Case No.* | *Notes* |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

***Internal***

| *Name* | *Phone* | *Date/Time Notified* | *Email* | *Notified By* | *Notes* |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| **Notification Status Report** | Prepared By: | At: / / : |
|---|---|---|
| INCIDENT ACTION PLAN SOFTWARE™ | Page of | The Response Group © 1997-2024 |

| ICS 201-1 - Incident Briefing Map/Sketch | Version Name: |
|---|---|
| Incident Name: | Period: / / : to / / : |

***Incident Map/Sketch***

***Current Situation***

***Approved By***

Incident Commander: Date:

Date:

| ICS 201-1 - Incident Briefing Map/Sketch | Prepared By: | At: / / : |
|---|---|---|
| INCIDENT ACTION PLAN SOFTWARE™ | Page of | The Response Group © 1997-2024 |

| ICS 201-2 - Summary of Current Actions | Version Name: |
|---|---|
| Incident Name: | Period: / / : to / / : |

***Initial Response Objectives***

***Current and Planned Actions***

| *Date/Time* | *Action/Event/Notes* |
|---|---|
| | |

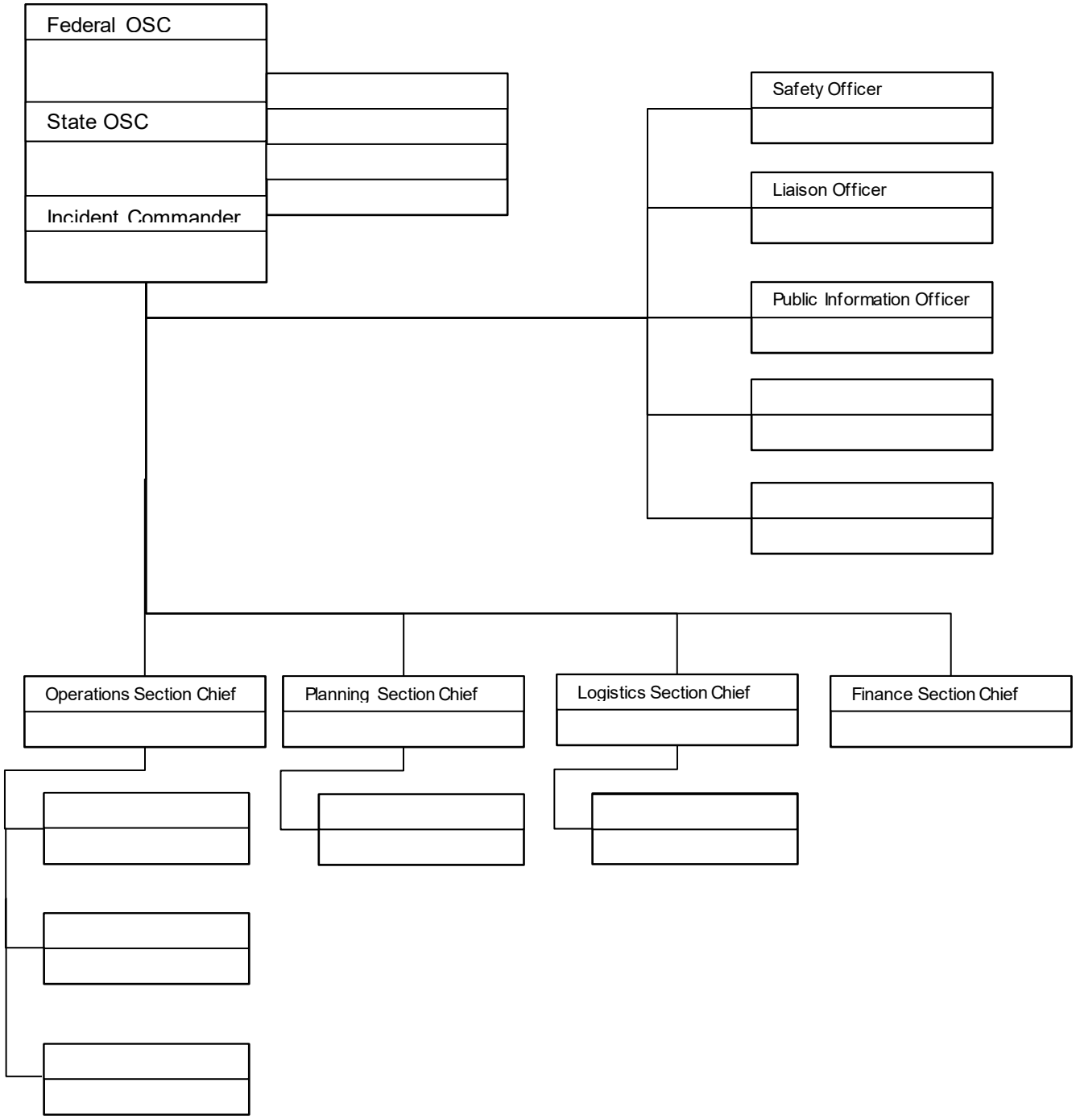
***Approved By***

Incident Commander: Date:

Date:

| ICS 201-2 - Summary of Current Actions | Prepared By: | At: / / : |
|---|---|---|
| INCIDENT ACTION PLAN SOFTWARE™ | Page of | The Response Group © 1997-2024 |

| Incident Name: | Period: / / : to / / : |
|---|---|
| | |




| ICS 201-3 - Current Organization | Prepared By: | At: / / : |
|---|---|---|
| INCIDENT ACTION PLAN SOFTWARE™ | Page of | The Response Group © 1997-2024 |

| ICS 201-4 – Resource Summary | | | | Version Name: | | | |
|---|---|---|---|---|---|---|---|
| Incident Name: | | | | Period: / / : to / / : | | | |
| | Resource | | | | | | |
| ID | Quantity | Kind/ Description | Supplier | Ordered | ETA | Arrived | Area Of Operation |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| | | | | | | ☐ | |
| ICS 201-4 – Resource Summary | | | | Prepared By: At: / / : | | | |
| INCIDENT ACTION PLAN SOFTWARE™ | | | | Page of | The Response Group | © 1997-2024 | |

| ICS 208 – Site Safety Plan | Version Name: |
|---|---|
| Incident Name: | Period: / / : to / / : |
| Facility: | |

## Site Characterization

| | | |
|---|---|---|
| Water: | Land: | Weather: |
| Wave Height: | Land Use: | Air Temp: |
| Speed: | | Wind Speed: |
| Direction: | | Direction: |

## Site Hazards

| Yes | No | Hazards | Yes | No | Hazards | Yes | No | Hazards |
|---|---|---|---|---|---|---|---|---|
| ☐ | ☐ | Boat Safety | ☐ | ☐ | Fire, Explosion, In-situ Burning | ☐ | ☐ | Pump Hose |
| ☐ | ☐ | Chemical Hazards | ☐ | ☐ | Heat Stress | ☐ | ☐ | Slips, Trips, and Falls |
| ☐ | ☐ | Cold Stress | ☐ | ☐ | Helicopter Operations | ☐ | ☐ | Steam and Hot Water |
| ☐ | ☐ | Confined Spaces | ☐ | ☐ | Lifting | ☐ | ☐ | Trenching/Excavation |
| ☐ | ☐ | Drum Handling | ☐ | ☐ | Motor Vehicles | ☐ | ☐ | UV Radiation |
| ☐ | ☐ | Equipment Operations | ☐ | ☐ | Noise | ☐ | ☐ | Visibility |
| ☐ | ☐ | Electrical Operations | ☐ | ☐ | Overhead/Buried Utilities | ☐ | ☐ | Weather |
| ☐ | ☐ | Fatigue | ☐ | ☐ | Plants/Wildlife | ☐ | ☐ | Work Near Water |
| ☐ | ☐ | | ☐ | ☐ | | ☐ | ☐ | |

## Air Monitoring Limits

| | | | | | |
|---|---|---|---|---|---|
| Oxygen Level | | Hydrogen Sulfide | | Total Hydrocarbons | |
| LEL | | Benzene | | | |

## Engineering Controls

| | | | | | |
|---|---|---|---|---|---|
| ☐ | Source of release secured | ☐ | Valve(s) closed | ☐ | Energy sources locked/tagged out |
| ☐ | Site secured | ☐ | Facility shut down | ☐ | |

## Personal Protective Equipment Required

| | | | | | |
|---|---|---|---|---|---|
| ☐ | Impervious suit | ☐ | Flame resistant clothing | ☐ | Eye protection |
| ☐ | Inner gloves | ☐ | Hard hats | ☐ | Personal flotation |
| ☐ | Outer gloves | ☐ | Respirators | ☐ | Boots |

## Additional Control Measures Established

| | | | | | |
|---|---|---|---|---|---|
| ☐ | Decontamination | ☐ | Illumination | ☐ | Additional stations established |
| ☐ | Sanitation | ☐ | Medical surveillance | ☐ | Facilities provided |

## Work Plan

| | | | | | |
|---|---|---|---|---|---|
| ☐ | Booming | ☐ | Excavation | ☐ | Hot work |
| ☐ | Skimming | ☐ | Heavy equipment | ☐ | Appropriate permits used |
| ☐ | Vac trucks | ☐ | Sorbent pads | ☐ | |
| ☐ | Pumping | ☐ | Patching | ☐ | |

## Training

| | | | |
|---|---|---|---|
| ☐ | Verified site workers trained per local/federal regulatory requirements | ***Training Requirements:*** | |

| ICS 208 – Site Safety Plan | Prepared By: | At: / / : |
|---|---|---|
| INCIDENT ACTION PLAN SOFTWARE™ | Page of | The Response Group © 1997-2024 |

| ICS 208 – Site Safety Plan | Version Name: |
|---|---|
| Incident Name: | Period: / / : to / / : |

**Organization**

| Position | Name | Telephone/Radio | Position | Name | Telephone/Radio |
|---|---|---|---|---|---|
| Incident Commander | | | Safety Officer | | |
| Deputy Incident Commander | | | Operations Section Chief | | |

**Emergency Plan**

| | | | | | |
|---|---|---|---|---|---|
| ☐ | Fire Prevention Plan | ☐ | Evacuation Plan | ☐ | |
| ☐ | Alarm System | ☐ | First Aid Location | ☐ | |

**Notifications**

| Facility | | | Phone | Facility | | | Phone |
|---|---|---|---|---|---|---|---|
| ☐ | Hospital | | | ☐ | Fire | | |
| ☐ | Ambulance | | | ☐ | Law Enforcement | | |
| ☐ | Air Ambulance | | | ☐ | Emergency Response/Rescue | | |

**Initial Briefing**

| | |
|---|---|
| ☐ | ***Initial safety briefing prepared for each site.*** |

**Attachments/Appendices**

| Attachments | | Appendices | |
|---|---|---|---|
| ☐ | Site Map | ☐ | Site Safety Program Evaluation Checklist |
| ☐ | Hazardous Substance Information Sheets | ☐ | Confined Space Entry Checklist |
| ☐ | Site Hazards | ☐ | Heat Stress Consideration |
| ☐ | Monitoring Program | ☐ | Cold Stress and Hypothermia Consideration |
| ☐ | Training Program | ☐ | First Aid for Bites, Stings, and Poisonous Plant Contact |
| ☐ | Confined Space Entry Procedure | ☐ | Safe Work Practice for Oily Bird Rehabilitation |
| ☐ | Safe Work Practices for Boats | ☐ | SIPI Site Pre-Entry Briefing |
| ☐ | PPE Description | ☐ | Personnel Tracking System |
| ☐ | Decontamination | ☐ | |
| ☐ | Communication and Organization | ☐ | |
| ☐ | Site Emergency Response | ☐ | |

**Approved By**

Safety Officer Date:

Planning Section Chief: Date:

| ICS 208 – Site Safety Plan | Prepared By: | At: / / : |
|---|---|---|
| INCIDENT ACTION PLAN SOFTWARE™ | Page of | The Response Group ©1997-2024 |

| ICS 214a - Individual Log | Individual Name: |
|---|---|
| Incident Name: | |

***Activity Log***

| *Date/Time* | *Events/Notes* | *Critical* |
|---|---|---|
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |
| | | |
| | | ☐ |

| ICS 214a - Individual Log | Prepared By: at / / : | |
|---|---|---|
| INCIDENT ACTION PLAN SOFTWARE™ Printed 6/21/2013 08:57 | Page of | The Response Group © 1997-2024 |

## NOTES


© The Response Group

## NOTES


© The Response Group

## NOTES


© The Response Group

# Appendix A Well Control

## A.1 Well Control Notifications

In the event, or the potential event, of a well control emergency, the Drilling Manager, the Completions Manager, or the Facilities/Production Manager will immediately contact the Coterra Manager responsible for the operation or the first available member of the well control emergency response team listed below: **See Section 5 for the Notifications Flowchart and Coterra contact numbers.**

### A.1.1 Internal Notifications – Well Control Emergency Response Team

| Immediate Notifications | | |
|---|---|---|
| Team Member | Office | Cell |
| Shawn Long | Susquehanna | 432-227-3380 |
| Jake Swanson | Susquehanna | 607-742-5984 |
| Oscar Pacheco | Susquehanna | 337-962-7456 |
| Will Preston | Susquehanna | 317-607-5666 |

### A.1.2 Emergency Response Contractor

| Wild Well Control - Pennsylvania | | | |
|---|---|---|---|
| Address | 259 McCracken Rd. Roaring Branch, PA 17765 | | |
| Office Number | 281-784-4700 | | |
| Fax Number | 281-784-4750 | | |
| Website | | | |
| Name | Title | Office | Mobile |
| Bryan Ellis | President | 281-784-4700 | |
| Joe Dean Thompson | Chief Operations Office | 281-784-4700 | |
| David Barnett | Sr. VP Well Control | 281-784-4700 | |
| David Moody | Sr. VP Technical Services | 281-784-4700 | |

For contact information regarding the Coterra Incident Management Team, Federal/State Local Authorities, and Emergency Services, refer to **Section 5** of this ERP.


© *The Response Group*

## A.2 Response Team Responsibilities

***At the time the well can no longer be controlled, the foreman shall carry out the following:***

### A.2.1 Foreman

| Foreman | |
|---|---|
| ✓ | Remove everyone from location. The safety of personnel is always the number one priority. |
| ✓ | Secure the location by:<br>1. Making the initial contact with local authorities, highway patrol and other law enforcement personnel, as appropriate.<br>2. Appointing member(s) of rig crew to keep unauthorized people, including the media, away from the site.<br>3. Accounting for all personnel on location. |
| ✓ | Notify the Well Control Superintendent of the emergency and blowout conditions (i.e., $H_2S$, fire, water, gas.) |
| ✓ | Facilitate the evacuation of nearby residents and seek assistance from local authorities. |
| ✓ | The foreman is directly responsible for supervising and preparing:<br>• Weighted kill fluids<br>• Set up of all pumping equipment for kill fluids. Ensuring that sufficient horsepower is available<br>• Set up for any special or heavy equipment needed |
| ✓ | Prepare sketches of Blowout Prevention Equipment with notation on placement of pipe and blind rams, choke manifolds and wellhead equipment. BOP nomenclature is listed from the wellhead up. The proper designations are:<br>A = Annular Type Blowout Preventer<br>G = Rotating Head<br>R = Single ram type bop<br>$R_d$ = Double ram type preventer with two sets of rams installed<br>$R_t$ = Triple ram type preventer with three sets of rams installed<br>$C_H$ = Remotely operated connector attaching wellhead or preventers to each other<br>$C_L$ = Low pressure remotely operated connector attaching marine riser to BP stack.<br>S = Spool with side outlets for kill or choke lines<br>M = 1000 psi. working pressure |
| ✓ | Help develop well control plan. |
| ✓ | Informs the local fire department of plans. |
| ✓ | Maintain a list of all rental items (and rental companies) used during the well control operation. |


© The Response Group

### A.2.2 Drilling or Completions Engineer

| Drilling Superintendent | |
|---|---|
| ✓ | Notifies the Well Control Manager that an emergency exists and recommends the Well Control Emergency Response Team be mobilized. |
| ✓ | Coordinates activities of Emergency Response Team as follows:<br>1. Contacts Division Production Manager for use of production personnel as support staff.<br>2. Contacts Contractor Superintendent and Coterra Manager of Environmental, Health & Safety.<br>3. Help prepare the well control plan. |
| ✓ | Establishes ground communication network. |
| ✓ | Locates an off-site staging area with Construction Foreman. |
| ✓ | Coordinates activities with Contractor with regard to moving equipment. |
| ✓ | Establishes long term security program with law enforcement agencies. |
| ✓ | Directs relief well drilling activities as needed. |
| ✓ | Maintains accurate list of available and approved contractors who can provide materials and service during an emergency. |

### A.2.3 Drilling, Completions or Facilities/Production Manager

| Drilling, Completions or Facilities/Production Manager | |
|---|---|
| ✓ | Mobilizes Well Control Emergency Response Team in the event of an emergency. |
| ✓ | Calls Well Control Specialists. |
| ✓ | Notifies IMA. |
| ✓ | Prepares well control plan with Cudd or Great White specialist, Well Control Superintendent, Drilling Engineer, Drilling Foreman, Field Superintendent, and Contractor Representative. |
| ✓ | Coordinates efforts with Production and Gas Sales Departments.<br>1. Will advise Vice President of Marketing when operation support group is needed and in what capacity.<br>2. Will advise Contractor Superintendent where support from their staff is needed. |
| ✓ | Will manage efforts of all directly affected operations personnel. |
| ✓ | Keeps VP of Drilling informed of all activities. |
| ✓ | Keeps Insurance adjusters informed when they are on-site. |

### A.2.4 Vice President – Marcellus Business Unit

| Vice President – Drilling | |
|---|---|
| ✓ | Notify Corporate Management |
| ✓ | Makes decision to declare an emergency situation exists. |
| ✓ | Coordinates press releases with Corporate and Govt. & External Affairs. |
| ✓ | Keeps Executive Management informed. |
| ✓ | Has final authority over well control plan and other operations. |
| ✓ | Coordinates meetings with working interest partners to keep them informed of operations. |
| ✓ | Coordinates providing Insurance adjuster and IMA with the following:<br>1. All drilling/completion/workover reports.<br>2. Operating agreement.<br>3. Drilling contact.<br>4. Invoices from date of incident to controlled or plugged well.<br>5. Rental agreements, MSA's with vendors, etc. |

## A.3 Responsibilities of Others

### A.3.1 Drilling, Completions, or Facilities/Production Contractor and/or Well Site Consultant

| Drilling, Completions, or Facilities/Production Contractor and/or Well Site Consultant | |
|---|---|
| ✓ | Supervises activities at the site (i.e. removing equipment, equipment limitations, pressure ratings, etc.). |
| ✓ | Provides support personnel (if needed) to help as security guards, relief Rig Managers or other jobs. |
| ✓ | Assists in obtaining special permits to haul heavy and oversized equipment. |
| ✓ | Assists in mobilization of a rig to drill a relief well. |
| ✓ | Assists in the preparation of a well control plan. |

### A.3.2 Contractor Representative

| Contractor's Representative | |
|---|---|
| ✓ | Reports to Well Control Superintendent and works with Foreman and Field Superintendent. |
| ✓ | Provides photographs and drawings of the rig and details of the rig's equipment and limitations. |
| ✓ | Works with Rig Manager to be sure rig equipment is not used beyond capacity. |


© The Response Group

### A.3.3 Drilling Engineer

| Drilling Engineer | |
|---|---|
| ✓ | Provides well engineering data, wellhead, casing design, etc.; and engineering and staff backup. |
| ✓ | Provides drawings showing the physical structure involved. |
| ✓ | Provides plan view of surface and bottom hole location. |
| ✓ | Maintains schematic drawing of the well bore including casing, drill string, tubing packers, and any other down hole equipment while operations are in progress. This sketch will contain pressure limitations and frac gradients. |
| ✓ | Provides electric logs of the well bore showing formations. |
| ✓ | Provides geologic cross section of the area of field, including surrounding well locations. |
| ✓ | If directional wells are used for well control, prepare a plan view of the proposed kill well(s) and current directional plots of each kill well. |

### A.3.4 Well Control Specialists

| Well Control Specialists | |
|---|---|
| ✓ | Prepares Well Control Plan with MBU Management Team, Well Control Manager, Well Control Superintendent, Engineer, Foreman, Field Superintendent, and Construction Foreman. |
| ✓ | Directs on-site implementation of Well Control Plan. |
| ✓ | Communicates with Well Control Superintendent to plan equipment needs and schedules events and delivers. |

### A.3.5 Construction Foreman

| Construction Foreman | |
|---|---|
| ✓ | Works under supervision of Well Control Superintendent and closely with Foreman and Field Superintendent to locate off-site staging area. |
| ✓ | Supervises building of off-site work area or location for relief well. |
| ✓ | Line up dirt moving equipment such as dozers, and other heavy equipment to build pits for mud and water as required. |
| ✓ | Finds water sources for as much water as possible for mud mixing, well control and cooling. |
| ✓ | Negotiates and settles damages with landowners on staging area. Uses land department to obtain names and phone numbers. |
| ✓ | Provides map of general area, including distances to nearest town. The map will include problem bridges or roads with load restrictions. |


© The Response Group

| Construction Foreman | |
|---|---|
| ✓ | Provide detailed list of residents within a 1- to 2-mile radius of the emergency in case further evacuation is necessary. |
| ✓ | If possible, provide a series of photographs showing the facilities before the emergency and then sequential photos of the same view, if possible, one photo from each of the four sides taken as day-to-day operations proceed. |
| ✓ | Works with Well Control Superintendent to establish a ground communication network (i.e., walkie-talkies, telephones, radio). |
| ✓ | Supervises site security personnel and establishes a check in/out procedure. |
| ✓ | Supervises emergency reclamation of any land damaged during the operation. |

### A.3.6 Manager of Environmental, Health & Safety

| Manager of Environmental, Health & Safety | |
|---|---|
| ✓ | Works under supervision of the Well Control Superintendent. |
| ✓ | Contact OSHA if any injuries have occurred. |
| ✓ | If toxic gas is involved, all on-site personnel will use proper respiratory protection. |
| ✓ | In charge of ensuring that proper first aid equipment is on location. |
| ✓ | Will work with Land Department to prepare emergency evacuation plan for nearby residents. |
| ✓ | Works with the V.P. of the MBU, Corporate, and Govt. & External Affairs in making public disclosures of injuries or deaths. |
| ✓ | Reviews kill plans and gives input from a safety viewpoint. |
| ✓ | Provides Well Control Emergency Response Team with list of chemicals on-site. |
| ✓ | Coordinates with Well Control Superintendent to provide containment of an oil or saltwater spill. Will work with Construction Foreman to build “catch” pits or dikes as needed. |
| ✓ | Works with operations and contractors to control fluids released. Provides E&S plans in effort to prevent impacts to waters of the commonwealth. |
| ✓ | Assists in air monitoring (contact appropriate consultants/contractors). |
| ✓ | Acts as liaison with government agencies to provide necessary notifications. |


© The Response Group

### A.3.7 Operations Manager and District Superintendent

| Division Operations Manager and District Superintendent | |
|---|---|
| ✓ | Supervises installation of emergency production equipment. |
| ✓ | Supervises disposal of any non-saleable fluids contaminated at the surface. |
| ✓ | Coordinates with operations support group to obtain Emergency Sales Orders from regulatory authorities. |

### A.3.8 Gas & Oil Sales/Marketing Group

| Gas & Oil Sales Group | |
|---|---|
| ✓ | Obtains markets for emergency sale of gas or oil. |
| ✓ | Ensures regulatory compliance on the sale of gas or oil with appropriate state and federal agencies. |

### A.3.9 Materials Coordinator

| Materials Coordinator | |
|---|---|
| ✓ | Coordinates transportation of tubing, casing valves, wellheads, and other small equipment. |
| ✓ | Coordinates food, lodging and drinks for members and work crews on location and office team personnel. |

### A.3.10 Press Relations

| Press Relations | |
|---|---|
| All press releases are to be approved by the Legal Department and Executive Management. Inquiries from the press should be directed to the on-site ranking Coterra Energy representative. In the event the press is near the location you should: | |
| ✓ | Be sure press representatives are a safe distance away and not in the way of efforts to control the well. |
| ✓ | Be polite and courteous. If a confrontation arises, ask for their names and phone numbers and indicate that we will get back to them once we have more facts. If they persist, instruct them not to trespass on the site, excuse yourself and walk away. Do not attempt to answer provocative questions, speculate as to cause or liability or make a reply to any question dealing with company activity or policy. |
| ✓ | Do not release any information on the well. |

**NOTE:** For additional information regarding Press Relations, refer to **Section 7** of this ERP.


© *The Response Group*

## A.4 General Well Control Procedures

### A.4.1 Blowout Contingency Procedures

| Blowout Contingency Procedures | |
|---|---|
| If, at any time, a well blowout occurs: | |
| ✓ | The primary concern shall be directed towards the safety of Coterra and contract personnel as well as the public. |
| ✓ | After the safety of all personnel is assured, the foreman shall contact the Well Control Superintendent or his alternate and report the situation. |
| ✓ | If a blowout has resulted in loss of life or injury to company or contractor personnel, the Medical Emergency Plan shall be implemented (See **Subsection 4.4**). |
| After contacting Management, the Well Control Superintendent may commence operations to control the blowout. These actions may include: | |
| ✓ | Eliminate all sources of ignition (shut down rig, all motors, etc.). |
| ✓ | Contact service companies to provide heavy kill fluids and pumping services. |
| ✓ | Obtain a backhoe or dozer to construct earthen dams to prevent escape of fluids, and vacuum trucks to collect and dispose of fluids. |
| ✓ | Blowout control specialists shall be contacted to organize and supervise the necessary specialty contractor services needed to regain control of the well. |

### A.4.2 Prevention of Well Control Problems

| Prevention of Well Control Problems |
|---|
| In all cases where tubing flanges or wellheads are removed, a hydraulic blowout preventer equipped with proper pipe and blind rams shall be installed. The blowout preventer will be tested for proper operation prior to starting well work. |


© The Response Group

# Appendix B - Glossary / Acronyms

| Term | Definition |
|---|---|
| **A** | |
| **Access/Staging Areas** | Designated areas offering access to spill sites for the gathering and deployment of spill response equipment and personnel. |
| **Activate** | The process of mobilizing personnel and/or equipment within the response organization to engage in response operations. |
| **Adverse Weather** | The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operation environment. Factors to consider include significant wave height, ice conditions, temperatures, weather-related visibility, and currents within the area in which the systems or equipment are intended to function. |
| **Agency** | A division of government with a specific function offering a particular kind of assistance. In ICS, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance). |
| **Agency Representative** | Individual assigned to an incident from an assisting or cooperating agency that has been delegated full authority to make decisions on all matters affecting his/her agency's participation at the incident. |
| **Allocated Resources** | Resources dispatched to an incident. |
| **API** | American Petroleum Institute |
| **Area Contingency Plan (ACP)** | As defined by Sections 311(a)(18) and (j)(4) of CWA, as amended by OPA, means the entity appointed by the President consisting of members from Federal, State, and local agencies with responsibilities that include preparing an Area Contingency Plan for the area designated by the President. The Area Committee may include ex-officio (i.e., non-voting) members (e.g., industry and local interest groups). |
| **Assessment** | The evaluation and interpretation of measurements and other information to provide a basis for decision-making. |
| **Assigned Resources** | Resources checked-in and assigned work tasks on an incident. |
| **Assignments** | Tasks given to resources to perform within a given operational period, based upon tactical objectives in the Incident Action Plan. |


© The Response Group

| Term | Definition |
|---|---|
| **Assistant** | Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications and responsibility subordinate to the primary positions. Assistants may also be used to supervise activities at camps. |
| **AST** | Aboveground Storage Tank |
| **Available Resources** | Resources assigned to an incident, checked in, and available for a mission assignment, normally located in a Staging Area. |
| **B** | |
| **Barrel** | Measure of space occupied by 42 U.S. gallons at 60 degrees Fahrenheit. |
| **Base** | The location as which the primary logistics functions are coordinated and administered. The Incident Command Post may be collocated with the base. There will only be one base per incident. |
| **BBL** | Barrel (Unit of Volume Equal to 42 Gallons) |
| **BLM** | Bureau of Land Management (USDOI) |
| **Blowout** | A sudden release of oil and/or gas from a well. |
| **BPD** | Barrels Per Day |
| **BPH** | Barrels Per Hour |
| **Branch** | The organizational level having functional/geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section. |
| **C** | |
| **ºC** | Degrees Centigrade |
| **Certification** | The act of confirming that an exercise: 1) was completed, 2) met the required objectives, and 3) was evaluated to determine effectiveness of the response plan based on exercise performance. |
| **CFM** | Cubic Feet per Minute |
| **CFR** | Code of Federal Regulations |
| **Chain of Command** | A series of command, control, executive, or management positions in hierarchical order of authority. |


© The Response Group

| Term | Definition |
|---|---|
| **CHEMTREC** | Chemical Transportation Emergency Center which provides information and/or assistance to emergency responders. Can be reached 24 hours a day by calling 800-424-9300. |
| **Chief** | The ICS title of individuals responsible for command of functional sections: Operations, Planning, Logistics and Finance/Administration. |
| **Command Post** | A site located in the cold zone where response decisions and activities can be planned, coordinated, and managed. The Incident Commander and regulatory On-Scene Coordinator(s) may operate from this location. |
| **Command Staff** | It consists of the Information Officer, Safety Officer and Liaison Officer, who report directly to the Incident Commander. They may have an assistant or assistants, as needed. |
| **Communications Equipment** | Equipment that will be utilized during response operations to maintain communication between the Company employees, contractors, Federal/State/Local agencies. (Radio/telephone equipment and links) |
| **Communications Unit** | An organizational unit in the Logistics Section responsible for providing communication services at an incident or an EOC. A Communications Unit may also be a facility (e.g., a trailer or mobile van) used to support an Incident Communications Center. |
| **Contamination Reduction Zone** | The area between the contaminated zone and the clean zone. This area is designed to reduce the probability that can clean zone will become contaminated. Also known as the warm zone. |
| **Contingency Plan** | A document used by (1) federal, state, and local agencies to guide their planning and response procedures regarding spills of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities. |
| **Convergence Line** | A line on the water surface where floating objects and oil collect. A convergence can be in the interface between two different types of bodies of water, or it can be caused by a significant depth change, tidal changes or other common phenomena. Convergences are common in the marine environment. |
| **Coordinate** | To advance systematically an analysis and exchange of information among principals who have or may have a need to know certain information to carry out specific incident management responsibilities. |


© *The Response Group*

| Term | Definition |
|---|---|
| **Cost Unit** | Functional unit within the Finance/Administration Section responsible for tracking costs, analyzing cost data, making cost estimates and recommending cost-saving measures. |
| **Critical Areas** | Areas which, if impacted by a spill, may result in threats to public health and/or safety. |
| **CRZ** | Contamination Reduction Zone |
| **CWA** | Clean Water Act of 1977 |
| **D** | |
| **Damage Assessment** | The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration. |
| **DECON** | Decontamination |
| **Decontamination** | The removal of hazardous substances from personnel and equipment necessary to prevent adverse health effects. |
| **Demobilization Unit** | Functional unit within the Planning Section responsible for assuring orderly, safe and efficient demobilization of incident resources. |
| **Deputy** | A fully qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operations or perform a specific task. In some cases, a Deputy could act as relief for a superior, and, therefore, must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff and Branch Directors. |
| **Director** | The ICS title for individuals responsible for supervising a Branch. |
| **Discharge (Spill)** | Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, condensate or other material that may pose a hazard, but excludes discharges in compliance with a permit. |
| **Dispatch** | The ordered movement of a resource or resources to an assigned operational mission or an administrative move from one location to another. |
| **Dispatch Center** | A facility from which resources are directly assigned to an incident. |


© The Response Group

| Term | Definition |
|---|---|
| **Dispersion** | The breaking up of an oil slick. |
| **Division** | The organization level having responsibility for operation within a defined geographic area or with functional responsibility. The Division level is organizationally between the Task Force/Strike Team and the Branch. |
| **Documentation Unit** | Functional unit within the Planning Section responsible for collecting, recording and safeguarding all documents relevant to the incident. |
| **DOT** | Department of Transportation |
| **DPS** | Department of Public Safety |
| **E** | |
| **EBS** | Emergency Broadcast System |
| **Economically Sensitive Areas** | Areas of explicit economic importance to the public that due to their proximity to potential spill sources may require special protection and include, but are not limited to; potable and industrial water intakes; locks and dams; and public and private marinas |
| **EHS** | Environmental Health and Safety |
| **EMA** | Emergency Management Agency |
| **Emergency** | Absent a Presidential declared emergency, any incidents(s), human-caused or natural, that requires responsive action to protect life or property. Under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, an emergency means any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States. |
| **Emergency Medical Technician (EMT)** | A health-care specialist with particular skills and knowledge in pre-hospital emergency medicine. |
| **Emergency Response** | The response to any occurrence that results, or is likely to result in a release of a hazardous substance due to an event. |
| **Emergency Service** | Those activities provided by the state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency. |
| **EMS** | Emergency Medical Service |


© The Response Group

| Term | Definition |
|---|---|
| **EMT** | Emergency Medical Technician |
| **EPA** | Environmental Protection Agency (United States) |
| **ERT** | Emergency Response Team |
| **ESD** | Emergency Shutdown |
| **ETA** | Estimated Time of Arrival |
| **Evacuation** | Organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas. |
| **Event** | A planned, non-emergency activity. ICS can be used as the management system for a wide range of events, e.g., parades, concerts, or sporting events. |
| **Exclusion Zone** | The area where contamination does or may occur. |
| **Explosion** | An explosion is a rapid increase in volume and release of energy in an extreme manner, usually with the generation of high temperatures and the release of gases. |
| **F** | |
| **FAA** | Federal Aviation Administration |
| **Facilities Unit** | Functional unit within the Support Branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc. |
| **Facility** | Any pipeline, structure, equipment, or device used for handling oil including, but not limited to, underground and aboveground storage tanks, well heads, impoundments, mobile or portable drilling or workover rigs. |
| **Facility Operator** | The person who owns, operates, or is responsible for the operation of the facility. |
| **FAX** | Facsimile Machine |
| **Federal** | Of or pertaining to the Federal Government of the United States of America. |
| **Federal On-Scene Coordinator (FOSC)** | The pre-designated Federal On-Scene Coordinator operating under the authority of the National Contingency Plan (NCP). |


© The Response Group

| Term | Definition |
|---|---|
| **Federal Regional Response Team** | The federal response organization (consisting of representatives from selected federal and state agencies) which acts as a regional body responsible for planning and preparedness before and oil spill occurs and providing advice to the FOSC in the event of a major or substantial spill. |
| **FEMA** | Federal Emergency Management Administration |
| **Field Operations Guide (FOG)** | A pocketsize manual of guidelines regarding application of the Incident Command System. |
| **Finance / Administration Section** | The Section responsible for all incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit and Cost Unit. |
| **Fire** | Fire is the rapid oxidation of a material in the chemical process of combustion, releasing heat, light, and various reaction products. Slower oxidative processes like rusting or digestion are not included by this definition. |
| **First Responders / First Response Agency** | A public health or safety agency (e.g., fire service or police department) charged with responding to an incident during the emergency phase and alleviating immediate danger to human life, health, safety, or property. |
| **Food Unit** | Functional unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel. |
| **FOSC** | Federal On-Scene Coordinator |
| **Function** | In ICS, function refers to the five major activities in the ICS, i.e., Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., “the planning function.” |
| **FWPCA** | Federal Water Pollution Control Act |
| **G** | |
| **GAL** | Gallons |
| **General Staff** | The group of incident management personnel comprised of: Incident Commander, Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief. |
| **Geographic Information Systems (GIS)** | An electronic information system that provides a geo-referenced data base to support management decision-making. |
| **GPM** | Gallons per Minute |


© The Response Group

| Term | Definition |
|---|---|
| **Ground Support Unit** | Functional unit within the Support Branch of the Logistics Section responsible for fueling, maintaining and repairing vehicles, and the ground transportation of personnel and supplies. |
| **Groundwater** | Subsurface water that fills available opening in rock or soil materials such that they may be considered water saturated under hydrostatic pressure. |
| **Group** | Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. Groups are located between Branches (when activated) and Single Resources in the Operations Section. |
| **GT** | Gross Tons |
| **H** | |
| **$H_2S$** | Hydrogen Sulfide |
| **Handle** | To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce. |
| **Harmful Quantity of Oil** | The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen or discoloration upon water, land, shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh. |
| **Hazardous Chemicals** | All chemicals that constitute a physical hazard or a health hazard as defined by 29 CFR 1910.1200, with the exceptions listed in section 311(e). This term comprises approximately 90 percent of all chemicals. |
| **Hazardous Material (HAZMAT)** | Any non-radioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants. |
| **Hazardous Substance** | Any substance designed as such by the Administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, regulated pursuant to Section 311 of the Federal Water Pollution Control Act, or discharged by the TWC. |


© The Response Group

| Term | Definition |
|---|---|
| **Hazardous Waste** | Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively. |
| **HAZCOM** | Hazard Communication |
| **HAZWOPER** | Hazardous Waste Operations and Emergency Response Regulations published by OSHA to cover worker safety and health aspects of response operations. |
| **Health Hazard** | A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. |
| **Heat Stress** | Dangerous physical condition caused by over exposure to extremely high temperatures. |
| **Helibase** | A location within the general incident area for parking, fueling, maintaining and loading helicopters. |
| **Helispot** | A location where a helicopter can take off and land. Some helispots may be used for temporary loading. |
| **HQ** | Headquarters |
| **HR** | Human Resources |
| **Hypothermia** | Dangerous physical condition caused by over exposure to freezing temperatures. |
| **I** | |
| **IDLH** | Immediate Danger to Life or Health |
| **IH** | Industrial Hygienist |
| **Incident** | Any event that results in the spill or release of oil or hazardous materials, or fire / explosion. |
| **Incident Action Plan (IAP)** | The Incident Action Plan, which is initially prepared at the first meeting, contains general control objectives reflecting the overall incident strategy, and specific action plans for the next operational period. When complete, the Incident Action Plans will include a number of attachments. |


© The Response Group

| Term | Definition |
|---|---|
| **Incident Area** | Legal geographical area of the incident including affected area(s) and traffic route(s) to corresponding storage and disposal sites. |
| **Incident Briefing Meeting** | Held to develop a comprehensive, accurate, and up-to-date understanding of the incident, nature of status of control operations, and nature and status of response operations; ensure the adequacy of control and response operations; begin to organize control and response operations; and prepare for interactions with outside world. |
| **Incident Command Post (ICP)** | The location at which the primary command functions are executed; may be collocated with the incident base. |
| **Incident Command System (ICS)** | A response system or organization by which the response to a spill is categorized into functional components and responsibility for each component assigned to the appropriate individual or agency. |
| **Incident Commander (IC)** | The one individual in charge at any given time of an incident. The IC will be responsible for establishing a unified command with all on-scene coordinators. |
| **Incident Management Team (IMT)** | The IC and appropriate Command and General Staff personnel assigned to an incident. |
| **Incident Objectives** | Statements of guidance and direction necessary for the selection of appropriate strategies, and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives. |
| **Incident Situation Display** | The Situation Unit is responsible for maintaining a display of status boards that communicate critical incident information vital to establishing and maintaining an effective command and control environment. |
| **Industry** | For the purpose of these guidelines, industry means the oil, natural gas, and hazardous substance industry required to submit response plans and comply with exercise requirements, as specified in appropriate vessel, facility, pipeline and Outer Continental Shelf platform regulations. The USCG, EPA, PHMSA and BOEMRE administer these regulations. |
| **Initial Action** | The actions taken by those responders first to arrive at an incident site. |


© *The Response Group*

| Term | Definition |
|---|---|
| **Information Officer (IO)** | A member of the Command Staff responsible for providing incident information to the public and news media or other agencies or organizations. There is only one Information Officer per incident. The Information Officer may have assistants. |
| **Initial Notification** | The process of notifying necessary company personnel and Federal/State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident. |
| **Initial Response Actions** | The immediate actions that are to be taken by the spill observer after detection of a spill. |
| **Injury** | an abnormal condition or disorder which ranges from minor cuts to amputations. |
| **Inland Area** | The area shoreward of the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) defined in 80.740 – 80.850 of Title 33 of the CFR. The inland area does not include the Great Lakes. |
| **Inland Waters** | State waters not considered coastal waters; lakes, rivers, ponds, streams, underground water, et. al. |
| **Inland Zone** | The environment inland of the coastal zone excluding the Great Lakes, and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans. |
| **Interim Storage Site** | A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges and other vehicles used to store waste until transport begins. |
| **IRT** | Initial Response Team |
| **J** | |
| **Joint Information Center (JIC)** | A facility established within, or near, the Incident Command Post where the Information Officer and staff can coordinate and provide incident information to the public, news media, and other agencies or organizations. The JIC is normally staffed with representatives from the FOSC, SOSC and RP. |


© The Response Group

| Term | Definition |
|---|---|
| **Joint Information System (JIS)** | Integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during crisis or incident operations. The mission of the JIS is to provide a structure and system for developing and delivering coordinated interagency messages; developing, recommending, and executing public information plans and strategies on behalf of the IC; advising the IC concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort. |
| **Jurisdiction** | A range or sphere of authority. At an incident, public agencies have jurisdiction related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, country, state, or Federal boundary lines), or functional (e.g., police department, health department, etc.). |
| **JOC** | Joint Operations Center |
| **JRT** | Joint Response Team |
| **K** | |
| **Kw** | Kilowatt |
| **L** | |
| **Lead Agency** | The government agency that assumes the lead for directing response. |
| **Lead Federal Agency** | The agency that coordinates the federal response to incidents on navigable waters. The lead Federal agencies are:<br>• U.S. Coast Guard (USCG): Oil and chemically hazardous materials incidents on navigable waters.<br>• U.S. Environmental Protection Agency (EPA): Oil and chemically hazardous materials incidents on inland waters. |
| **Lead State Agency** | The agency that coordinates state support to Federal and/or Local governments or assumes the lead in the absence of Federal response. |
| **Leader** | The ICS title for an individual responsible for a Task Force/Strike Team or functional Unit. |
| **LEL** | Lower Explosive Limit |
| **LEPC** | Local Emergency Planning Committee |


© The Response Group

| Term | Definition |
|---|---|
| **Liaison** | A form of communication for establishing and maintaining mutual understanding and cooperation. |
| **Liaison Officer (LO)** | A member of the Command Staff responsible for coordinating with stakeholder groups and representatives from assisting and cooperating agencies. |
| **Local Emergency Planning Committees (LEPC)** | Provide input regarding a state's implementation of federal law. LEPC's provide local emergency planning, representing a variety of disciplines interested in hazardous materials management designed to help the State Chemical Emergency Planning and Response Commission (CEPRC) fit the needs of a particular region. CEPRC's are usually established by an Executive Order to fill the requirement in Title III, the Federal Superfund Amendments and Reauthorization Act of 1986. The act requires that each governor establish a state emergency response commission to address a variety of hazardous materials planning and community right-to-know issues. |
| **Local Government** | A county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; an Indian tribe or authorized tribal organization, or in Alaska a Native village or Alaska Regional Native Corporation; a rural community, unincorporated town or village, or other public entity. See Section 2 (10), Homeland Security Act of 2002, Pub. L. 107-296, 116 Stat. 2135 (2002). |
| **Local Response Team** | Designated Facility individuals who will fulfill the roles determined in the oil spill response plan in the event of an oil or hazardous substance spill. They will supervise and control all response and cleanup operations. |
| **Logistics** | Providing resources and other services to support incident management. |
| **Logistics Section** | The Section responsible for providing facilities, services and materials for the incident. |
| **LOSC** | Local On-Scene Coordinator |
| **LPG** | Liquefied Petroleum Gas |
| **LRT** | Local Response Team |
| **M** | |


© *The Response Group*

| Term | Definition |
|---|---|
| **Management by Objective** | A management approach that involves a four-step process for achieving the incident goal. The Management by Objectives approach includes the following: establishing overarching objectives; developing an issuing assignments, plans, procedures, and protocols: establishing specific, measurable objectives for various incident management functional activities; and documenting results to measure performance and facilitate corrective action. |
| **Managers** | Individuals within ICS organizational units who are assigned specific managerial responsibilities (e.g., Staging Area Manager or Camp Manager). |
| **Maximum Extent Practicable** | The limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst-case discharges from onshore non-transportation-related facilities in adverse weather. It considers the planned capability to respond to a worst case discharge in adverse weather, as contained in a response plan that meets the requirements in 112.20 or in a specific plan approved by the Regional Administrator. |
| **MBU** | Marcellus Business Unit |
| **Medical Unit** | Functional unit within the Service Branch of the Logistics Section responsible for developing the Medical Plan, and for providing emergency medical treatment for incident response personnel. |
| **Message Center** | The message center is part of the Communications Center and collocated with or adjacent to it. It receives, records, and routes information about resources reporting to the incident, resource status, and handles administration and tactical traffic. |


© The Response Group

| Term | Definition |
|---|---|
| **Mitigation** | The activities designed to reduce or eliminate risks to persons or property or to lessen the actual or potential effects or consequences of an incident. Mitigation measures may be implemented prior to, during, or after an incident. Mitigation measures are often informed be lessons learned from prior incidents. Mitigation involves ongoing actions to reduce exposure to, probability of, or potential loss from hazards. Measures may include zoning and building codes, floodplain buyouts, and analysis of hazard-related data to determine where it is safe to build or locate temporary facilities. Mitigation can include efforts to educate governments, business, and the public on measures they can take to reduce loss and injury. |
| **Mobilization** | The process and procedures used by all organizations: Federal, State, Local, and Tribal for activating, assembling, and transporting all resources that have been requested to respond to or support an incident. |
| **MOU** | Memorandum of Understanding |
| **Mutual-Aid Agreement** | Written agreement between agencies and/or jurisdictions that they will assist one another on request, by furnishing personnel, equipment, and/or expertise in a specified manner. |
| **N** | |
| **National** | Of a nationwide character, including the Federal, State, local, and tribal aspects of governance and polity. |
| **National Contingency Plan** | The plan prepared under the Federal Water Pollution Control Act (33 United State Code SS1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code SS9601 et seq), as revised from time to time. |
| **Natural Gas** | Natural gas is a gas consisting primarily of methane, typically with 0-20% higher hydrocarbons (primarily ethane). |


© The Response Group

| Term | Definition |
|---|---|
| **National Incident Management System (NIMS)** | A system mandated by HSPD-5 that provides a consistent nationwide approach for Federal, State, local and tribal governments; the private-sector, and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among Federal, State, local, and tribal capabilities, the NIMS includes a core set of concepts, principles, and terminology. HSPD-5 identifies these as the ICS; multi-agency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and the collection, tracking, and reporting of incident information and incident resources. |
| **National Response Plan** | A plan mandated by HSPD-5 that integrates Federal domestic prevention, preparedness, response, and recovery plans into one all-discipline, all-hazards plan. |
| **National Response System (NRS)** | Is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the NRT, RRTs, OSC, Ara Committees, and Special Teams and related support entities. |
| **Natural Resource** | Land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the state, federal government, private parties, or a municipality. |
| **Navigable Waters** | As defined in section 502(7) of the FWPCA, and includes: (1) all navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L 92-500), and tributaries of such waters; (2) interstate waters; (3) intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and (4) intrastate lakes, rivers, and streams from which fish or shellfish. |
| **NCP** | National Oil and Hazardous Substances Pollution Contingency Plan |
| **NM** | Nautical Miles |
| **NOAA** | National Oceanic and Atmospheric Administration |
| **Non-Crude Oil** | Any oil other than crude oil. |

| Term | Definition |
|---|---|
| **Non-Persistent or Group I Oil** | A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:<br>1. At least 50 percent of which by volume distill at a temperature of 340°C (645°F); and<br>2. At least 95 percent of which by volume distill at a temperature of 370°C (700°F). |
| **Non-Petroleum Oil** | Oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils. |
| **NRC** | National Response Center |
| **NRT** | National Response Team |
| **O** | |
| **OGRE** | Oil and Gas Reporting – Electronic (PADEP) |
| **Oil or Oils** | Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil, diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR 302 under Section 101(14) of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by P.L. 99-499. |
| **Oil Spill Cooperative** | Multi-company cooperative organization developed by industry to assist with oil spill response and clean up. Typically, manpower and equipment are identified by a company on a voluntary basis. |
| **Oil Spill Removal Organization (OSRO)** | An entity that provides oil spill response resources, and includes any for-profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provided required response resources. |
| **Oily Waste** | Oil-contaminated waste resulting from an oil spill or spill response operations. |
| **On Scene Coordinator (OSC)** | The federal official pre-designated by EPA or the USCG to coordinate and direct federal responses under subpart D, or the official designated by the lead agency to coordinate and direct removal actions under subpart E of the National Contingency Plan. |


© The Response Group

| Term | Definition |
|---|---|
| **On-site** | The area extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action. |
| **OPA 90** | Federal Oil Pollution Act of 1990 |
| **Operating Area** | The rivers and canals, inland, near shore, Great Lakes, or offshore geographic location(s) in which a facility is handling, storing, or transporting oil. |
| **Operating Environment** | Refers to Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the condition in which response equipment is designed to function. |
| **Operational Period** | The period of time scheduled for execution of a given set of operational actions specified in the Incident Action Plan. Operational Periods can be various lengths, usually not over 24 hours. |
| **Operations Section** | Responsible for all operations directly applicable to the primary mission. Directs unit operational plans preparation, requests or releases resources, makes expedient changes to the Incident Action Plan (as necessary) and reports such to the Incident Commander. Includes the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch, and Wildlife Branch. |
| **ORT** | On-Site Response Team |
| **OSC** | On-Scene Coordinator |
| **OSHA** | Occupational Safety and Health Administration (USDL) |
| **OSIC** | On-Scene Incident Commander |
| **OSLTF** | Oil Spill Liability Trust Fund |
| **OSRO** | Oil Spill Removal Organization |
| **Out of Service Resources** | Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons. |
| **Owner or Operator** | Any person, individual, partnership, corporation, association, governmental unit, or public or private organization of any character. |
| **P** | |
| **PADEP** | Pennsylvania Department of Environmental Protection |
| **PEL** | Permissible Exposure Limit |


© *The Response Group*

| Term | Definition |
|---|---|
| **PEMA** | Pennsylvania Emergency Management Agency |
| **Persistent Oil** | Under OPA 90, persistent oils are petroleum-based oils that do not meet the distillation criteria for a non-persistent oil. Persistent oils are classified based on specific gravity as follows:<br>• Group II – specific gravity less than .85;<br>• Group III – specific gravity between .85 and less than .95;<br>• Group IV – specific gravity .95 to and including 1.0.; and<br>• Group V – specific gravity greater than 1.0. |
| **PFBC** | Pennsylvania Fish and Boat Commission |
| **PHMSA** | Pipeline and Hazardous Materials Safety Administration |
| **PIA** | Post Incident Analysis |
| **Plan** | Spill response, clean-up, and disposal contingency plan. |
| **Planning Meeting** | A meeting, held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning. |
| **Planning Section** | Responsible for collecting, evaluating, and disseminating tactical information related to the incident, and for preparing and documenting Incident Action Plans. The section also maintains information on the current and forecast situation, and on the status of resources assigned to the incident. Includes the Situation, Resource, Environmental, Documentation, and Demobilization Units, and Technical Specialists. |
| **Post Incident Analysis** | Detailed review of an incident to establish a clear picture of events that took place during an incident. |
| **Post-Emergency Response** | The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun. |
| **PPE** | Personal Protection Equipment |
| **PPM** | Parts Per Million |
| **PREP** | (National) Preparedness for Response Exercise Program |


© *The Response Group*

| Term | Definition |
|---|---|
| **Preparedness** | The range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from domestic incidents. Preparedness is a continuous process. Preparedness involves efforts at all levels of governmental and between government and private-sector and nongovernmental organizations to identify threats, determine vulnerabilities, and identify required resources. Within the NIMS, preparedness is operationally focused on establishing guidelines, protocols, and standards for planning, training and exercises, personnel qualification and certification, equipment certification, and publication management. |
| **Prevention** | Actions to avoid an incident or to intervene to stop an incident from occurring. Prevention involves actions to protect lives and property. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations to determine the full nature and source of the threat; public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice. |
| **Primary Response Contractor(s)** | An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or cleanup of spilled oil. |
| **Private Sector** | Organizations and entities that are not part of any governmental structure. It includes for-profit and not-for-profit organizations, formal and informal structures, commerce and industry, and private voluntary organizations (PVO). |
| **Processes** | Systems of operations that incorporate standardized procedures, methodologies, and functions necessary to provide resources effectively and efficiently. These include resource typing, resource ordering and tracking, and coordination. |
| **Procurement Unit** | Functional unit within the Finance/Administration Section responsible for financial matters involving vendor contracts. |
| **PSI** | Pounds Per Square Inch |


© *The Response Group*

| Term | Definition |
|---|---|
| **Public Information Officer (PIO)** | A member of the Command Staff responsible for interfacing with the public and media or with other agencies with incident-related information requirements. |
| **Q** | |
| **Qualification and Certification** | This subsystem provides recommended qualification and certification standards for emergency responder and incident management personnel. It also allows the development of minimum standards for resources expected to have an interstate application. Standards typically include training, currency, experience, and physical and medical fitness. |
| **Qualified Individual(QI)** | An English-speaking representative(s) of the facility identified in the plan, located in the United States, available on a 24-hour basis, able to arrive at the facility in a reasonable time, familiar with implementation of the facility response plan, and trained in the responsibilities of the Qualified Individual under the response plan. This person must have a document from the owner or operator designating them as a Qualified Individual and specifying their full authority to:<br><br>• Activate and engage in contracting with oil spill removal organization(s);<br>• Act as a liaison with the pre-designated Federal On-Scene coordinator (OSC); and<br>• Obligate funds required to carry out all necessary or directed response activities. |
| **R** | |
| **RA** | Regional Administrator |
| **RCP** | Regional Contingency Plan |
| **Reception Area** | This refers to a location separate from staging areas, where resources report in for processing and out-processing. Reception Areas provide accountability, security, situational awareness briefings, safety awareness, distribution of IAPs, supplies and equipment, feeding, and bed down. |
| **Recorders** | Individuals within ICS organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics and Finance/Administration. |


© The Response Group

| Term | Definition |
|---|---|
| **Recoverable Oil** | Oil in a thick enough layer on the water, or land to be recovered by conventional techniques and equipment. Only black or dark brown oil, mousse and heavy sheens (which are dull brown in color) are generally considered to be thick enough to be effectively recovered by skimmers. |
| **Recovery** | The development, coordination, and execution of service-and site-restoration plans; the reconstitution of government operations and services; individual, private-sector, nongovernmental, and public-assistance programs to provide housing and to promote restoration; long-term care and treatment of affected persons; additional measures for social, political, environmental, and economic restoration; evaluation of the incident to identify lessons learned; post-incident reporting; and development of initiatives to mitigate the effects of future incidents. |
| **Recreation Area** | Publicly accessible area where social/sporting events take place. |
| **Regulated Substance(s)** | 1. Hazardous substances defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The CERCLA list consists of individual compounds and large groups of compounds. If a chemical is a member of one of the groups, it is regulated in the same manner as one of the individually listed compounds.<br>2. Liquid petroleum products.<br>3. Other substances the department added by regulation including biodiesel, synthetic fuels and oils, tung oils, wood-derivative oils, inedible seed oils from plants and pure ethanol intended for blending with motor fuels. |
| **Residual Waste** | Residual waste is nonhazardous industrial waste. It includes waste material (solid, liquid or gas) produced by industrial, mining, and agricultural operations. It excludes certain coal mining wastes and wastes from normal farming activities. |
| **Resource Management** | Efficient incident management requires a system for identifying available resources at all jurisdictional levels to enable timely and unimpeded access to resources needed to prepare for, respond to, or recover from an incident. Resource management under the NIMS includes mutual-aid agreements; the use of special Federal, State, local, and tribal teams; and resource mobilization protocols. |


© The Response Group

| Term | Definition |
|---|---|
| **Resource Unit** | Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. The Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resources needs. |
| **Resources** | All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained. |
| **Response Contractors** | Persons/companies contracted to undertake a response action to contain and/or clean up a spill. |
| **Response Plan** | A practical plan used by industry for responding to a spill. Its features include (1) identifying the notification sequence, responsibilities, response techniques, etc. in an easy to use format; (2) using decision trees, flowcharts, and checklists to insure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from that required by regulatory agencies to prevent confusion during a spill incident. |
| **Response Resources** | The personnel, equipment, supplies, and other capabilities necessary to perform the response activities identified in a response plan. |
| **Responsible Party (RP)** | Any person, owner/operator, or facility that has control over an oil or hazardous substance immediately before entry of the oil or hazardous substance into the atmosphere or in or upon the water, surface, or subsurface land of the state. |
| **Responsible Party Incident Commander (RPIC)** | Responsible Party's designated incident commander. |
| **Restoration** | The actions involved in returning a site to its former condition. |
| **Rivers and Canals** | A body of water confined within the inland area that has a projected depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation. |
| **ROW** | Right of Way |
| **RQ** | Reportable Quantity |
| **RRT** | Regional Response Team |
| **S** | |


© *The Response Group*

| Term | Definition |
|---|---|
| **Safety Officer (SO)** | A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety. The Safety Officer may have assistants. |
| **SCBA** | Self-Contained Breathing Apparatus |
| **SDS** | Safety Data Sheet |
| **Section** | The organization level having functional responsibility for primary segments of incident operation such as: Operations, Planning, Logistics, Finance/Administration. The Section level is organizationally between Branch and Incident Commander. |
| **Service Branch** | A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical and Food Units. |
| **Sheen** | A very thin layer of oil (less than 0.0001 inches or 0.003 millimeters in thickness) floating on the water surface. Sheen is the most commonly observed form of oil during the later stages of a spill. Depending on thickness, sheens range in color from dull brown for the thickest sheens to rainbows, grays, silvers, and near-transparency in the case of the thinnest sheens. |
| **SOP** | Standard Operating Procedure |
| **Ship** | Any boat, ship, vessel, barge or other floating craft of any kind. |
| **SI** | Surface Impoundment |
| **Single Resource** | An individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident. |
| **Site Conditions** | Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc. |


© *The Response Group*

| Term | Definition |
|---|---|
| **Site Safety and Health Plan (SSHP)** | Site-specific document required by state and Federal OSHA regulations, in the event of an incident and specified in the Area Contingency Plan. The SSHP, at minimum, addresses, includes, or contains the following elements: health and safety hazard analysis for each site task or operation, comprehensive operations work plan, personnel training requirements, PPE selection criteria, site-specific occupational medical monitoring requirements, air monitoring plan, site control measures, confined space entry procedures (if needed), pre-entry briefing (tailgate meetings, initial and as needed), pre-operations commencement health and safety briefing for all incident participants, and quality assurance of SSHP effectiveness. |
| **Site Security and Control** | Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation. |
| **SITREP** | Situation Report Message |
| **Situation Unit** | Functional unit within the Planning Section responsible for collecting, organizing and analyzing incident status information, and for analyzing the situation as it progresses. Reports to the Planning Section Chief. |
| **Source Control** | Actions necessary to control the spill source and prevent the continued release of oil or hazardous substance(s) into the environment. |
| **Span of Control** | On how many organizational elements may be directly managed by one person. Span of Control may vary from three to seven, and a ratio of one to five reporting elements is recommended. |
| **Spill** | In PA, any oil or petroleum product, regulated substance, chemical or waste that is released in any unauthorized manner. |
| **Spill Management Team (SMT)** | The personnel required to staff the organization structure identified in a response plan to manage response plan implementation. |
| **Spill Response** | All actions taken in responding to spills of oil and hazardous materials including: receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development. |


© The Response Group

| Term | Definition |
|---|---|
| **Spill Response Personnel** | Federal, State, and Local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be pre-approved on a list maintained in each region. |
| **SSHP** | Site Safety and Health Plan |
| **Staging Area** | The location where incident personnel and equipment are staged awaiting tactical assignment. |
| **State On-Scene Coordinator (SOSC)** | The pre-designated State On-Scene Coordinator. |
| **STEL** | Short-term Exposure Level |
| **Strategic** | Strategic elements of incident management are characterized by continuous long-term, high-level planning by organizations headed by elected or other senior officials. These elements involve the adoption of long-range goals and objectives, the setting of priorities; the establishment of budgets and other fiscal decisions, policy development, and the application of measures of performance or effectiveness. |
| **Strategy** | The general plan or direction selected to accomplish incident objectives. |
| **Strike Team** | A set number of resources of the same kind and type that have an established minimum number of personnel. |
| **Supervisor** | The ICS title for individuals responsible for directing the activities of a Division or Group. |
| **Supply Unit** | Functional unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations. |
| **Support Branch** | A Branch within the Logistics Section responsible for providing personnel, equipment and supplies to support incident operations. Includes the Supply, Facilities, Ground Support and Vessel Support Units. |
| **T** | |


© *The Response Group*

| Term | Definition |
|---|---|
| **Tabletop Exercise (TTX)** | A tabletop exercise is an activity in which key members of the plan holder's staff with emergency management responsibilities are gathered together informally, usually in conference room, to discuss actions to be taken during an oil or hazardous substance spill, based upon the response plan and their standard operating procedures. The primary characteristic is a verbal "walk through" of a response. The tabletop exercise is designed to elicit constructive discussion by the participants, usually without time constraints, as they examine and resolve problems based on the response plan. A tabletop exercise has participants practice problem solving and resolve questions of coordination and assignment of responsibilities in a non-threatening format, under minimum stress. |
| **Tactics** | Deploying and directing resources during an incident to accomplish the desired objective. |
| **Task Force** | A group of resources with common communications and a leader assembled for a specific mission. |
| **Technical Specialist** | Personnel with special skills who can be used anywhere within the ICS organization. |
| **Threat** | An indication of possible violence, harm, or danger. |
| **Time Unit** | Functional unit within the Finance/Administration Section responsible for recording time for incident personnel and hired equipment. |
| **Tools** | Those instruments and capabilities that allow for the professional performance of tasks, such as information systems, agreements, doctrine, capabilities, and legislative authorities. |
| **Toxic Substances** | Any substances that have the capacity to produce personal injury or illness to man through ingestion, inhalation or absorption through any body surface. |
| **Transfer** | Any movement of oil to, from, or within a vessel by means of pumping, gravitation, or displacement. |
| **TRG/TRP** | Tactical Response Guide/ Tactical Response Plan |
| **U** | |
| **UEL** | Upper Explosive Limit |


© *The Response Group*

| Term | Definition |
|---|---|
| **Unified Command** | The method by which local, state, and federal agencies, on-scene coordinator(s), and the responsible party will work within the Incident Command System to collectively:<br>• Determine their roles and responsibilities for the incident.<br>• Determine their overall objectives for management of an incident.<br>• Select a strategy to achieve agreed-upon objectives.<br>• Deploy resources to achieve agreed-upon objectives. |
| **Unit** | The organizational element having functional responsibility for a specific incident planning, logistics, or finance/administration activity. |
| **Unity of Command** | The concept by which each person within an organization reports to one and only one designated person. The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective. |
| **UST** | Underground Storage Tank |
| **V** | |
| **Vessel** | Every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel. |
| **VHF** | Very High Frequency |
| **W** | |
| **Waste** | Oil or contaminated soil, debris, and other substances removed from coastal waters, adjacent water, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized spill. Waste is any solid, liquid, or other material intended to be discarded or disposed of and generated as a result of an unauthorized spill of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of generation or are brought to a recycling facility within that time. |
| **Watercourse or Waters** | Any lakebed (playa), gully, draw, streambed, wash, arroyo, or natural or man-made channel through which water flows or has flowed. |
| **Waters of the Commonwealth** | Any and all rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of the Commonwealth of Pennsylvania. |


© The Response Group

| Term | Definition |
|---|---|
| **Waters of the U.S.** | Groundwater and surface water including all perennial, intermittent, and ephemeral defined drainages with flowing water present, NPDES discharge water after the Point of Compliance, lakes, reservoirs and wetlands which are not manmade retention ponds used for the treatment of municipal, agricultural or industrial wasters; and all other bodies of surface water, either public or private which are wholly or partially within the boundaries of the state. |
| **Worst Case Discharge** | Means in the case of an onshore facility, the largest foreseeable discharge in adverse weather conditions. |


© The Response Group

COTERRA

# Preparedness, Prevention and Contingency (PPC) Plan

# PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN

**(Control & Disposal and Master Containment plans are incorporated into this Plan)**

**Version – MBU PPC-003**

**May 2024**

| |
|---|
| Coterra's 24-Hour Emergency Contact Number: **1-(855)-641-0300**<br><br>Coterra's Emergency Contact List is included in **Coterra's Emergency Response Plan Portion of the Integrated Contingency Plan**. |


***Marcellus Business Unit - Susquehanna Office***
***8207 State Route 29***
***Montrose, PA 18801***
***(570) 278-3518***

***Marcellus Business Unit – Pittsburgh Office***
***2000 Park Lane, Suite 300***
***Pittsburgh, PA 15275***
***(412) 249-3850***

# Table of Contents


1.0 DESCRIPTION OF FACILITY ..... 2
**1.1 Description of the Industrial or Commercial Activity ..... 2**
**1.2 Description of Existing Plans ..... 2**
**1.3 Material and Waste Inventory ..... 3**
1.3.1 Site Development/Construction ..... 3
1.3.2 Drilling ..... 3
1.3.3 Completions (Hydraulic Fracturing) ..... 4
1.3.4 Operations and Fluid Storage ..... 5
**1.4 Pollution Incident History ..... 10**
2.0 DESCRIPTION OF HOW PLAN IS IMPLEMENTED BY ORGANIZATION ..... 11
3.0 SPILL LEAK PREVENTION AND RESPONSE ..... 12
**3.1 Containment Methods ..... 12**
3.1.1 Drilling Containment Systems ..... 12
3.1.2 Hydraulic Fracturing and Fluid Storage Containment Systems ..... 13
**3.2 Potential Release Scenarios ..... 15**
3.2.1 Fluid and chemical releases from fluid transfer lines/hoses/valves/manifolds ..... 15
3.2.3 Fluid and chemical releases from storage tanks ..... 15
3.2.4 Fluid and chemical releases from disconnected fittings ..... 16
3.2.5 Production fluid releases from storage tanks and fluid transfer lines/fittings/manifolds/valves 16
3.2.6 Releases as a result of a Well Control Event (e.g., Fire, Explosion, or Blowout) ..... 16
**3.3 Material Compatibility ..... 16**
**3.4 Inspection and Monitoring Program ..... 17**
3.4.1 Drilling, Hydraulic fracturing and Fluid Storage Operations ..... 17
3.4.2 Production ..... 17
3.4.3 Pressure Barrier Policy (*currently being added to all PPC Plans as Attachment; best practices regarding pressure barriers have historically been included in individual project work plans and will continue to be in those plans as Coterra transitions to the PPC plan*) ..... 17
3.4.4 Bulk Product Deliveries, Transfers, and Wastewater Removal ..... 17
3.4.5 Erosion and Sedimentation (E&S) Controls ..... 18
**3.5 Preventive Maintenance ..... 18**
**3.6 Housekeeping Program ..... 18**
**3.7 Security/External Factor Protection ..... 19**
**3.8 Training Program ..... 19**
3.8.1 Contractor Personnel ..... 19
3.8.2 Coterra Operations Personnel ..... 19
4.0 COUNTERMEASURES ..... 20
5.0 EMERGENCY SPILL CONTROL NETWORK ..... 21
6.0 Recycling and Waste Disposal Methods ..... 22
**6.1 Typical Wastes and Generated Materials Management ..... 22**
**6.2 Typical Volumes of Generated Materials ..... 22**
**6.3 Fluid Recycle and/or Reuse Locations ..... 22**
**6.4 Disposal and Recycling/Reuse Frequency ..... 23**
**6.5 Solids Disposal Locations ..... 23**
**6.6 Transportation of Wastes ..... 24**
ATTACHMENT 1 – Pressure Barrier Policy (in progress, may be included in work plans) ..... 27
ATTACHMENT 2 – Standard Operating Procedure Secondary Containment Dewatering ..... 28

# 1.0 DESCRIPTION OF FACILITY

## 1.1 Description of the Industrial or Commercial Activity

Coterra Energy Inc. (Coterra) intends to install and operate natural gas wells in Northeast Pennsylvania. Coterra is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021. This Preparedness, Prevention, and Contingency (PPC) Plan addresses processes during site development, gas well drilling, hydraulic fracturing, production, fluid storage, work-over, well plugging and site restoration activities.

## 1.2 Description of Existing Plans

Coterra's Marcellus Business Unit (MBU) submitted their original PPC and Control and Disposal Plan (C&D Plan) to the Pennsylvania Department of Environmental Protection (PADEP) on September 4, 2008. The plans were approved by PADEP on October 31, 2008. The PPC Plan was updated per PADEP's request on September 24, 2009, and June 29, 2010. A revision to the C&D Plan was completed in February 2011. Pursuant to section 3218.2 of PA House Bill 1950 (Act 13 of 2012), Coterra developed and submitted a Master Containment Plan to the PADEP on October 12, 2012; revised October 18, 2012. Revised in April 2015 to include PPC Plan, the C&D Plan and Master Containment Plan. The 2015 version of the plan was revised incorporate operational updates and required updates per the PADEP Chapter 78a regulatory revisions. The January 2023 version of the plan was updated to include PADEP suggested updates, company name change, operational updates, contact information updates, updates to the format of the plan and the inclusion of the Master Containment Plan and Control & Disposal Plan into the PPC Plan. This 2024 version of the plan incorporates minor updates to included fluid storage associated with PADEP Bureau of Waste Management Permits. The previous version of the plans will remain in effect until updated plans are distributed.

Coterra will require that contractors have PPC and Spill Prevention, Containment, and Countermeasures (SPCC) Plans prior to commencement of work activities at Coterra facilities. Contractor and Coterra SPCC Plans address onsite oil capacities greater than 1,320 gallons and are developed to comply with USEPA regulations (40 CFR 112). SPCC Plans are not incorporated into this plan, however they would be included in Part 4 of the Integrated Contingency Plan (ICP).

The PPC Plan is a portion of the Site-Specific ICP for each site. The ICP consists of the following parts:

- Part 1 – Site Specific Information
- Part 2 – Coterra MBU Emergency Response Plan
- Part 3 – Coterra MBU Preparedness, Prevention and Contingency Plan
- Part 4 – Coterra MBU SPCC Plan (if applicable)

The PPC Plan will be available at the well site during site development, gas well drilling, hydraulic fracturing, production, work-over, well plugging and site restoration activities. Additionally, site specific information is included in the Site-Specific Information part of

Coterra's Integrated Contingency Plans as well as within applicable Erosion & Sediment Control Plans; these plans are available at each site and can be provided upon request.

## 1.3 Material and Waste Inventory

Product Safety Data Sheets (SDS) for site development, gas well drilling, hydraulic fracturing, production, work-over, well plugging and site restoration activities are maintained on-site by the Contractor and/or at the Coterra Company Man's office. Individual contractors will maintain SDS files at the site for applicable materials related to their activities at the well site. SDS files related to Coterra specific activities (production/operation) will be made available at the well site (e.g. mailbox or electronically).

The following section summarizes typical materials, chemicals and wastes generated during drilling, hydraulic fracturing, and production/operations. Table 1 identifies, but is not an inclusive list, of the typical materials/chemicals utilized and wastes generated.

### 1.3.1 Site Development/Construction

***Fuels and Lubricants*:**

During the site development phase of the well installation and site development; fuels and lubricants are utilized by the construction equipment and for power generation. Typical fuels and lubricants onsite include, but are not limited to:

- diesel fuel
- hydraulic oil
- motor oils

Diesel fuel is primarily stored in an aboveground storage tank (AST), typically ranging from 500 to 15,000 gallons in capacity. Used lubricants are temporarily stored onsite before being shipped offsite for disposal/reuse. These lubricants are stored above ground typically in 300-gallon totes or 55-gallon drums.

### 1.3.2 Drilling

***Conductor Hole:***

No drilling mud or fluid is used during this drilling process with the rig being a single self-contained piece of mobile equipment. During this phase of drilling, no fluids (other than fresh water) are brought on-site except fuel, via approved refueling service vehicles with automatic shutoff equipment, and neat cement grout used for cementing the annular space of the casing string and/or well plug. The cement grout is either mixed on location or delivered to each site via Federal DOT approved cement mix transport trucks. Fuel tanks for the drill rig and support vehicles are intrinsic to each vehicle and meet Federal DOT regulations.

***Drill Cuttings*:**
The volume of drill cuttings will be determined on a per well basis (i.e., depth, diameter, etc.). The drill cuttings generated on site are temporarily staged in lined containers on the well site prior to off-site disposal at an approved disposal facility.

***Drilling Muds*:**
The vertical portion of the well is typically drilled using water-based drilling muds (if drilled on fluid) and the horizontal portion of the well is typically drilled using either a synthetic oil-based, salt-based or diesel-based drilling mud. These muds are stored on location in tanks during drilling. Drilling Muds are typically reused and mobilized and demobilized with the drilling rig. Once the drilling muds are no longer able to be reused on-site, they are typically disposed off-site at an approved disposal location. There may be some instances where drilling muds are returned to the provider to be reconditioned.

***Fuels and Lubricants*:**
During the drilling phase of the well installation, fuels and lubricants are utilized by the drilling equipment and for power generation. Typical fuels and lubricants onsite include, but are not limited to:

- diesel fuel
- hydraulic oil
- motor oils

Diesel fuel is typically stored in an aboveground storage tank (AST), typically ranging from 500 to 15,000 gallons in capacity. In addition to diesel fuel compressed natural gas (CNG) may be utilized onsite for power generation. CNG will be containerized in DOT approved vessels. Used lubricants are temporarily stored onsite before being shipped offsite for disposal/reuse. These lubricants are store above ground typically in 300- gallon totes or 55-gallon drums.

### 1.3.3 Completions (Hydraulic Fracturing)

***Stimulation Fluids*:**
Approximately 350,000 to 500,000 gallons of stimulation fluids (fresh water, stormwater collected from secondary containment and reuse fluids) will be utilized to stimulate each stage during the completions of a well. A typical well may consist of 20 to 80 stages.

***Proppants in Stimulation Fluid*:**
The volume of proppants in frac fluids will be determined on a per well basis. Typical frac fluids may include up to approximately 500,000 pounds of sand per stage during well completions. A typical well may consist of 20 to 80 stages.

***Stimulation Fluid Additives*:**
Frac fluid is anticipated to contain several additives including, but not limited to friction reducer, gel, scale control, hydrochloric acid, biocide, and surfactant. SDS for these materials

will be maintained by the individual contractor responsible for the material and will be readily available at the well site. Additional information on stimulation fluid additives used is also posted at www.fracfocus.org.

***Fuels and Lubricants*:**
During the hydraulic fracturing phase of the well installation, fuels and lubricants are utilized by the on-site equipment and for power generation. Typical fuels and lubricants onsite include, but are not limited to:

- diesel fuel
- hydraulic oil
- motor oils

Diesel fuel may be stored in an aboveground storage tank (AST), typically ranging from 500 to 12,000 gallons in capacity. In addition to diesel fuel compressed natural gas (CNG) may be utilized onsite for power generation. CNG will be containerized in DOT approved vessels. Used lubricants are temporarily stored onsite before being shipped offsite for disposal/reuse. These lubricants are store above ground typically in 300- gallon totes or 55-gallon drums.

***Produced (Flowback) Fluids and Wet Sediment/Sludge:***
Well flowback operations are typically conducted immediately following well stimulation activities but may be conducted at a later date dependent on various well site considerations (such as availability of pipeline to flow gas). The flowback fluids returned from the well bore are comprised of spent stimulation fluids and formation fluid which includes brine and formation materials. Flowback fluids recovered vary from well to well but typically equal approximately 10 percent of stimulation fluid volume used. These fluids are temporarily stored within aboveground tanks on the well pad prior to transport for direct re-use in well development activities at a Coterra or other operator well site, prior to partial evaporation at the generating location, or prior to transport to an off-site facility for beneficial reuse or disposal.

### 1.3.4 Operations and Fluid Storage

***Production Fluid and Other Waste Fluid*:**
The volume of production fluids and other waste fluids generated per month varies from well to well throughout northeast PA. Fluids will be typically stored in adequately sized ASTs at the well site prior to either reuse at Coterra or other operator well sites or disposal. The fluid tanks are equipped with various types of secondary containment structures. Fluid storage may be permitted via a PADEP Bureau of Waste Management permit to allow centralized storage of fluids at a facility prior to beneficial reuse.

Centralized fluid storage, permitted under the auspices of a Waste Management permit issued by PADEP, may be located at a well site. Specifics regarding volumes and containment structures will be specified within each approved permit.

***Glycol and Methanol*:**
The volumes of glycol and methanol stored at the well site vary depending on the number of gas wells located at the site. Methanol is typically stored in small containers (typically 330-gallons) at each gas well. Glycol is typically located within the gas processing unit (GPU) at each gas well or in separate tanks. Glycol may also be stored on location associated with heat trace applications; at which time it will be stored within the heating unit.

***Well Servicing Fluids (workover fluids)*:**
The volumes of well servicing fluids stored at the well site vary depending on the specific workover activities being conducted. These fluids are typically stored in frac tanks or smaller working tanks prior to use, solidification and/or disposal.

**Table 1 – Typical Materials/Chemicals/Waste**

| Material/ Common Name | Source | Storage Location | Typical Quantity | Management |
|---|---|---|---|---|
| Diesel Fuel | Site Development, Drilling/Hydraulic fracturing Contractors | Well Site, within individual chemically-compatible tanks (primary containment) and impermeable secondary containment (inclusive of approved double walled tanks) | To be determined on a per well basis. Typically 500-15,000 gallon ASTs. | Stored within individual chemically-compatible tanks (primary containment) and impermeable secondary containment (inclusive of approved double walled tanks) |
| Hydraulic Oil | Site Development, Drilling/Hydraulic fracturing Contractors | Well Site, within individual chemically-compatible containers (primary containment) and impermeable secondary containment | To be determined on a per well basis. Typically 300-gallon totes or 55-gallon drums. | Stored within individual chemically-compatible containers (primary containment) and impermeable secondary containment |
| Biocide | Drilling/Hydraulic fracturing Contractors | Well Site within chemically compatible containers (primary containment) on impermeable secondary containment | To be determined on a per well basis. | Stored in chemically compatible containers (primary containment) on impermeable secondary containment |
| Corrosion Inhibitor | | | | |
| Clay Stabilizer | | | | |
| Iron Control | | | | |
| Micro-emulsion Surfactant | | | | |
| Amphoteric Surfactant | | | | |
| Friction Reducer | | | | |

**Table 1 – Typical Materials/Chemicals/Waste**

| Material/ Common Name | Source | Storage Location | Typical Quantity | Management |
|---|---|---|---|---|
| Surfactant | | | | |
| Hydrochloric Acid | | | | |
| Enzyme Breaker | | | | |
| Friction Reducer | | | | |
| Gelling Agent | | | | |
| Sand (proppant) | | | | |
| Drilling Muds | Used during both vertical and horizontal drilling. | Well Site, within individual chemically-compatible tanks (primary containment) and impermeable secondary containment | To be determined on a per well basis. | Stored within individual chemically-compatible tanks (primary containment) and impermeable secondary containment. Spent drilling muds are typically disposed at an approved disposal facility. |

**Table 1 – Typical Materials/Chemicals/Waste**

| Material/ Common Name | Source | Storage Location | Typical Quantity | Management |
|---|---|---|---|---|
| Drill Cuttings | Generated during well drilling and installation. | Temporally stored in lined containers on the well site prior to off-site disposal at an approved disposal facility. | To be determined on a per well basis. | Containers utilized for transportation and staged are lined to prevent leakage from container. Stored within secondary containment. |
| Stimulation Fluids | Approved fresh water withdrawals, containment stormwater and produced fluid | Well Site, within individual chemically-compatible tanks (primary containment) and impermeable secondary containment | Typically 350,000 to 500,000 gallons per stage. Approx. 20-80 stages per well. | Reused to stimulate subsequent wells or removed for off-site management at an approved facility. Stored within secondary containment. |
| Produced (Flowback) Fluids and Wet Sediment/Sludge | Flowback of wells following stimulation | Well Site, within individual chemically-compatible tanks (primary containment) and impermeable chemically compatible secondary containment | Dependent on well characteristics – typically 10% of stimulation fluid used. | Stored onsite prior to reuse at Coterra or other operator well sites, off-site treatment for reuse or disposal at an approved disposal facility. Stored within secondary containment. |

**Table 1 – Typical Materials/Chemicals/Waste**

| Material/ Common Name | Source | Storage Location | Typical Quantity | Management |
|---|---|---|---|---|
| Production Fluid | Production activities. | To be determined on a per well basis. Minimally, will be stored in chemically compatible tanks (primary containment) with either double walled construction or chemically compatible secondary containment. | Varies on a per well basis. Typically stored in 100-500 barrel ASTs/frac tanks. | Typically stored onsite prior to off-site treatment for reuse or disposal at an approved disposal facility. Stored within secondary containment. May be stored in accordance with Waste Management Permit. |
| Methanol | Production activities. | To be determined on a per well basis. | Typically stored in 330-gallon ASTs at each well. | Stored within individual chemically-compatible drums or tanks and impermeable secondary containment |
| Glycol | Production activities. | Typically contained within the Gas Processing Units or heating devices on the well site or in ASTs. | Varies on a per well basis. | Stored within the gas processing units or AST according to the manufacturers specifications. |
| Well Servicing Fluids | Well maintenance. | Products are not anticipated to be stored on-site; products to be temporarily utilized by contractors and immediately removed. If stored onsite they will be on the Well Site, within individual chemically-containers (primary containment) and impermeable secondary containment. | To be determined on a per well basis. | To be determined on a per well basis. Stored within secondary containment. |

**Table 1 – Typical Materials/Chemicals/Waste**

| Material/ Common Name | Source | Storage Location | Typical Quantity | Management |
|---|---|---|---|---|
| Used Oil | Site Development, Drilling/Hydraulic fracturing Contractors | Well Site, in compatible containers (primary containment) within individual secondary containment | To be determined on a per well basis. Typically 300-gallon totes or 55-gallon drums. | Removed for off-site management and disposal at an approved disposal facility. Stored within secondary containment. |
| General Trash (Plant Trash) | Site Development, Drilling/Hydraulic fracturing and Operations Contractors | 55-gallon drums or cubic yard dumpsters. | Several 55 gallon drums or cubic yard dumpsters at any one time | Removed for off-site disposal at an approved disposal facility. |
| Clearing and Grubbing Waste | Site Development Contractors | In any open area off of the well site | Varies by site | May be chipped and used as mulch or removed for off-site disposal at an approved disposal facility. |
| Clean-up materials | Unauthorized release (e.g., spills, leaks) | Well Site, within secondary containment | To be determined based on size of release | Removed for off-site management and disposal at an approved disposal facility. Stored within secondary containment. |

Note that on-site mobile fueling is conducted by separate subcontractors of the Site Development, Drilling, and Hydraulic fracturing Contractor.

## 1.4 Pollution Incident History

In the event of an incident, Coterra will review the events leading to the incident and the incident responses to identify areas for pollution prevention procedure improvements. Following the review, the Plan and employee training will be updated if necessary.

Coterra maintains a pollution history log that is regularly submitted to the department with permit packages, this pollution history log can be provided to the department upon request.

# 2.0 DESCRIPTION OF HOW PLAN IS IMPLEMENTED BY ORGANIZATION

Coterra MBU's Environmental Health and Safety (EHS) group is responsible for the development, implementation and maintenance of this Plan.

Refer to Coterra's Master Emergency Response Plan for specific details.

# 3.0 SPILL LEAK PREVENTION AND RESPONSE

## 3.1 Containment Methods

### 3.1.1 Drilling Containment Systems

At each unconventional well site, multiple layers of containment will be implemented to prevent the uncontrolled discharge of pollutional substances. These may include all or a combination of the following:

- Earthen Berms
- Secondary containment liner(s)
- Double walled tanks
- Portable secondary containment structures
- Tertiary containment structures

Dependent on the well pad design, an earthen berm may be constructed minimally around the three hydraulically down gradient sides of the well pad. In these cases, the berm will be constructed to limit the discharge of any material off the well pad surface and prevent the uncontrolled discharge to the surrounding area or nearby water features.

Drilling activities are conducted in two stages, consisting of initially installing a shallow conductor pipe to provide wellbore stability followed by the actual gas wellbore (inclusive of necessary surface and intermediate bores). These are conducted by different techniques, requiring differing levels of containment protection. These are described in the following sections.

<u>Conductor Hole</u>

The shallow conductor pipe is typically installed using traditional air rotary or auger type rigs (spud rig). No drilling mud or fluid is used during this drilling process with the rig being a single self-contained piece of mobile equipment. Support equipment to carry auger flights and bits are likewise self-contained mobile equipment. During this phase of drilling, no fluids (other than fresh water) are brought on-site except fuel, via approved refueling service vehicles with automatic shutoff equipment, and neat cement grout used for cementing the annular space of the casing string and/or well plug. The cement grout is either mixed on location or delivered to each site via Federal DOT approved cement mix transport trucks. Fuel tanks for the drill rig and support vehicles are intrinsic to each vehicle and meet Federal DOT regulations. As such, no secondary containment measures beyond the well pad itself are necessary to prevent uncontrolled releases. While no additional fluids are brought to the site during this phase of operation, as an additional measure, impermeable liner may be placed beneath the equipment to contain any incidental leaks that may occur. Conductor cuttings material generated are either beneficially reused at the site via OG0071 approval from PADEP or in the event they cannot be reused are disposed off-site at an approved disposal facility.

Gas Well Drilling Operations

Drilling of the subsequent casing runs and production well bore is performed using a drilling platform type rig. At each well location, prior to moving any equipment or materials related to this phase of drilling, a secondary containment structure, meeting the requirements set forth in PA Code 25 Chapter 78a, will be constructed on the well pad surface to form an impermeable barrier (secondary containment may consist of multiple layers of high-density polyethylene (HDPE)/reinforced polyethylene (RPE) in combination with felt). Installers of secondary containment will be knowledgeable of and trained in the proper installation of these materials. For all chemicals and additives used for the drilling process, containment will be compatible and sufficient to prevent uncontrolled releases from reaching ground surface. When properly installed, the permeability of the containment will be less than $1 \times 10^{-10}$ cm/sec. The edges of the containment will be bermed to a nominal height of 1 foot or of sufficient height to contain 110 percent of the largest vessel contained on the pad. All well drilling additives and chemicals necessary to perform the well drilling activities will be placed within the secondary containment on the well pad. Additionally, all fluid transfer piping, pumps and equipment in use to support the well drilling, will be contained within secondary containment.

For wells where non-fresh water-based mud is used, the mud tanks will be placed within a secondary containment system. This containment structure will similarly consist of containment within diked enclosure. The diked enclosure will be capable of containing 110 percent of the largest tank within containment.

Fuel tanks not attached to, or part of mobile equipment will have integral secondary containment consisting of double walled construction. The tanks will have a means to access the interstitial space to evaluate if the internal tank has been compromised.

Portable equipment staged outside the secondary containment liner (e.g., light towers) will be placed in portable secondary containment structures. The secondary containment will be able to contain 110 percent of any liquid tank on the respective equipment.

### 3.1.2 Hydraulic Fracturing and Fluid Storage Containment Systems

At each well site, multiple layers of containment will be implemented to prevent the uncontrolled discharge of pollutional substances. These may include all or a combination of the following:

- Earthen Berms
- Secondary containment liner(s)
- Double walled tanks
- Portable secondary containment structures
- Tertiary containment structures

Dependent on the well pad design, an earthen berm may be constructed minimally around the three hydraulically downgradient sides of the well pad. In these cases, the berm will be constructed to limit the discharge of any material off the well pad surface and prevent the uncontrolled discharge to the surrounding area or nearby water features. At each well location, prior to moving any equipment or materials, a secondary containment structure comprised of containment will be constructed on the well pad surface and fused together to form an impermeable barrier.

For all chemicals and additives used for the stimulation process, containment is chemically compatible and sufficient to prevent uncontrolled releases from reaching ground surface. The edges of the containment will be bermed to a nominal height of 1 foot or of sufficient height to contain 110 percent of the largest vessel contained on the pad. All well stimulation additives and chemicals necessary to perform the well stimulation activities will be placed within the secondary containment on the well pad. Additionally, fluid transfer lines off containment (i.e. well development pipelines - fused HDPE water lines) will pressure tested to 125% of the line's operating pressure. The contractor performing the fluid transfer will be required to perform daily inspections of the line to ensure the line remains in satisfactory condition. All pumps and equipment used for the well stimulation, excluding those restricted to containing fresh water, will be placed within a secondary containment structure. Following the well stimulation, vessels and tanks may be used to contain produced fluids will be located within secondary containment.

Fuel tanks not attached to, or part of mobile equipment will have integral secondary containment consisting of double walled construction. The tanks will have a means to access the interstitial space to evaluate if the internal tank has been compromised.

Portable equipment staged outside the secondary containment liner (e.g., light towers) will be placed in portable secondary containment structures. The secondary containment will be able to contain 110 percent of any liquid tank on the respective equipment.

For acid tubes and chemical blender tanks, tertiary containment in the form of portable containment structures (i.e., duck ponds) will be placed under these vehicles and/or vessels in addition to the secondary containment structures described above.

For the hydraulic fracturing activities, reuse or recycled water (i.e., produced fluid, stormwater water from other well sites or fluids from treatment facilities) may be used with fresh water to make up the stimulation fluid. Tanks containing reuse water will be labeled and will typically be placed together such that secondary containment can be constructed under these tanks consistent with the procedure described in the preceding section for well site activities. Secondary containment underneath the tanks will be capable of holding 110 percent of the volume of the largest vessel used. Secondary containment will not be necessary for fresh water tanks. Non-freshwater fluids (i.e., produced fluid, impacted stormwater) are typically stored in 500-bbl frac tanks, in the event that non-freshwater is stored in tanks with capacity exceeding 20,000-gallons Coterra will acquire PADEP approval according to 25 Pa. Code Section

78.a.56(a)(2) via submittal of a Request For Approval of Alternative Waste Management Practices.

Additional information on stimulation fluid additives used is also posted at www.fracfocus.org.

Additional pollution prevention practices may include:

- Continuous drilling to eliminate the need to remove (i.e., blowout) water accumulated in the well bore during downtime in the drilling process
- Closed-loop drilling system
- Use of efficient drilling and stimulation fluids to reduce fluid requirements
- Installation of automated controls and level alarms on fluid storage tanks

## 3.2 Potential Release Scenarios

Potential release scenarios and release response details at Coterra well sites could occur from equipment failure, accident, or human error and are outlined below.

3.2.1 Fluid and chemical releases from fluid transfer lines/hoses/valves/manifolds

- Hoses/valves/manifolds will be inspected prior to each use for obvious defects. They will be kept in good condition and will be removed from service and replaced if leakage is identified.
- Equipment will be maintained according to manufacturer's specifications in effort to minimize the potential for releases.
- The person managing the fluid transfer will stay within the immediate vicinity of the transfer equipment and controls during the transfer.
- If a release occurs, the person managing the fluid transfer will immediately stop the transfer of additional fluid and initiate the procedures detailed in the Coterra Emergency Response Plan.

3.2.3 Fluid and chemical releases from storage tanks

- Containment of releases is provided by containment surrounding storage tanks. Any release will be cleaned immediately after locating the source of the release and taking steps to stop the flow. Depending on the volume of the release appropriate remediation equipment will be utilized to recover the liquid. Efforts will be made to minimize the extent of the release, thereby reducing the amount of impacted soil.
- The use of equipment (normally present during drilling and hydraulic fracturing operations) to create emergency containment berms down gradient of the containment breach/release may be required in addition to the use of commonly

available spill absorbent materials in an effort to eliminate migration off the site or to surface waters. The media impacted by the release will be evaluated and remediated in accordance with applicable regulations or as approved by the PADEP. Any contaminated media that requires offsite disposal will be adequately disposed.

3.2.4 Fluid and chemical releases from disconnected fittings

To reduce the likelihood of a release from a disconnected fitting, fluids will be transferred as follows:

- Transport trucks will load directly from the storage tanks.
- Hoses/manifolds/valves will be inspected prior to each use for obvious defects. The hoses will be kept in good condition and will be removed from service and replaced if leakage is identified.
- The person managing the fluid transfer will stay within the immediate vicinity of the transfer equipment and controls during the transfer.
- Following fluid transfer, all hoses and connections will be drained.
- In the event, a release does occur; the release will be immediately contained by the person managing the transfer. In the unlikely event a release from a disconnected fitting exceeds the ability of the person managing the transfer will follow procedures detailed in the Coterra Emergency Response Plan.

3.2.5 Production fluid releases from storage tanks and fluid transfer lines/fittings/manifolds/valves

- In the event a release occurs, the release will be immediately contained by the person managing the transfer. In the unlikely event a release from a disconnected fitting exceeds the ability of the person managing the transfer will follow procedures detailed in the Coterra Emergency Response Plan.
- The release will be reported to the department in accordance with the current spill policy.

3.2.6 Releases as a result of a Well Control Event (e.g., Fire, Explosion, or Blowout)

- In the event of a fire, explosion, or blowout; an emergency well control contractor may be required to assist with emergency response activities. Refer to the Coterra Emergency Response Plan for details regarding response to a well control incident.
- Blow-Out Preventers are in place, tested and operational whenever drilling into oil and gas bearing zones at depths below the surface casing.

## 3.3 Material Compatibility

All storage tanks and flow through process equipment are constructed of materials that are, according to manufacturer's specifications, compatible with the material they contain and the

temperature and pressure conditions of storage/flow. For all chemicals and additives containment shall be compatible and sufficient to prevent uncontrolled releases from reaching ground surface.

## 3.4 Inspection and Monitoring Program

### 3.4.1 Drilling, Hydraulic fracturing and Fluid Storage Operations

Typical inspections, conducted by a Coterra representative prior to or during each shift during drilling and hydraulic fracturing, will assess the conditions of tanks, all chemical storage areas, waste oil storage, and storm water controls at the well location, as well as transfer lines/hoses/valves/manifolds and collection/gathering lines. At minimum, secondary containment structures will be inspected weekly and well development pipelines will be inspected daily, when in-use. The records will be maintained by Coterra with the facility's usual and customary business records, including electronic format. Observed deficiencies will be documented and remedied in a timely manner.

### 3.4.2 Production

Inspections will be conducted periodically to ensure the proper operation of the equipment and to minimize the potential of a release. Produced fluid storage tanks and the containment associated with those tanks will be inspected, at minimum, monthly. Annual inspections will be documented, and the records will be maintained for, at minimum, three (3) years. The records will be maintained by Coterra with the facility's usual and customary business records, including electronic format.

### 3.4.3 Pressure Barrier Policy (*currently being added to all PPC Plans as Attachment; best practices regarding pressure barriers have historically been included in individual project work plans and will continue to be in those plans as Coterra transitions to the PPC plan*)

Coterra's Pressure Barrier Policy has been prepared per the Chapter 78a regulations and the PADEP technical guidance document titled "*Guidelines for Development of Operator Pressure Barrier Policy for Unconventional Wells*" (Document Number: 800-0810-003). A copy of the Pressure Barrier Policy is included in Attachment A of this PPC Plan.

The Pressure Barrier Policy provides detail regarding the types of activities requiring pressure barriers encountered during drilling, completion, alteration, plugging, workover, and maintenance/repair activities within Coterra's Marcellus Business Unit in Pennsylvania. The policy further identifies the types of Pressure Barriers required for each activity.

### 3.4.4 Bulk Product Deliveries, Transfers, and Wastewater Removal

All bulk product deliveries, transfers, and wastewater removal will be monitored by Coterra or designated contractor to assure proper transfers and that accidental releases, if any, have an immediate and appropriate response.

### 3.4.5 Erosion and Sedimentation (E&S) Controls

A Coterra representative or designated contractor will inspect all E&S devices weekly at a minimum and after each stormwater event, noting when maintenance (e.g., cleanout, repair, replacement, regarding, stabilization, etc.) is required and/or specific deficiencies exist. Any device found to be clogged, damaged, half-full of silt or not fully operational will be cleaned of all debris. Best Management Practices (BMPs) will be repaired or replaced (as necessary) to ensure effective and efficient operation. Wherever possible, re-useable materials will be segregated from waste material and stored separately for recycling/reuse. Material designated as waste will be disposed at an approved facility. Stormwater event inspections and weekly inspections will be documented in a written report summarizing each inspection and all BMP repair, or replacement and maintenance activities.

## 3.5 Preventive Maintenance

During drilling and hydraulic fracturing activities, daily inspections are conducted by Coterra or its designated contractors. During production, the wells and associated equipment are inspected on a regular basis.

## 3.6 Housekeeping Program

Chemicals, equipment, and supplies on site will be kept neat and orderly. Coterra requires Contractors to keep chemical handling and storage activities on the well site, where feasible. Contractors are required to provide additional secondary containment for any chemical/petroleum handling activity that occurs on or off the well site. All pumps and equipment utilized, excluding those restricted to containing fresh water only, will be contained within a secondary containment structure.

Secondary containment structures at the well site are designed to contain stormwater rather than allowing it to discharge with any potential pollutants. Stormwater which accumulates in secondary containment may be discharged to the environment if it is determined to be unimpacted according to the attached "***Standard Operating Procedure Secondary Containment Dewatering***". Stormwater (impacted or unimpacted) which accumulates in secondary containment may also be reused in Coterra's operations. If unable to be reused, impacted stormwater may be sent to a permitted treatment facility.

As mentioned above, secondary containment will be inspected and adequately repaired as soon as practical.

Efforts will be made to maintain the well site free of residual waste. Residual waste (including plant trash and debris) will be collected and removed from the well site in a timely manner. When required, all residual wastes will be disposed off-site at an approved disposal facility.

Small spills, both on and off containment, will be promptly cleaned-up and the recovered materials will be properly disposed at a permitted disposal facility.

Equipment utilized during spill clean-ups will be adequately decontaminated at the site. The extent of decontamination will depend on the type of material released and the degree to which it is impacted.

## 3.7 Security/External Factor Protection

Twenty-four-hour staffing during well drilling and hydraulic fracturing activities will be employed to prevent accidental or intentional entry to the well site. During the production phase, well sites contain signage, locked gates, and engineered devices on production equipment to provide protection from unauthorized access in accordance with Chapter 78a.57. Additional details are included in Coterra's Emergency Response Plan.

## 3.8 Training Program

### 3.8.1 Contractor Personnel

Coterra requires that contractors have necessary PPC and SPCC Plans, including training requirements, in place before work begins. Coterra will require that, at minimum, all contractor personnel be trained and will comply with the requirements in this PPC Plan and the Emergency Response Plan.

### 3.8.2 Coterra Operations Personnel

At least once a year, personnel are given a refresher training to review spill prevention procedures. The refresher training also highlights and describes relevant discharges/failures, malfunctioning components, and updated precautionary measures.

All new personnel will be trained on the contents of this Plan and the Emergency Response Plan prior to the initiation of any activity covered by the plans.

# 4.0 COUNTERMEASURES

Refer to Coterra's Master Emergency Response Plan for specific response procedures.

# 5.0 EMERGENCY SPILL CONTROL NETWORK

Refer to Coterra's Master Emergency Response Plan for specific response procedures.

# 6.0 Recycling and Waste Disposal Methods

## 6.1 Typical Wastes and Generated Materials Management

During drilling activities Coterra employs a “closed-loop” drilling system to manage the drilling mud and cuttings. The closed loop system uses mechanical (shaking and screens) and/or chemical means to separate liquids from solids. In the closed-loop system, drill cuttings are stored in a compatible container onsite until disposed at an approved waste disposal facility. During drilling operations, the drilling fluid/mud may be re-circulated, cleaned, and re-used from well site to well site prior to eventual disposal.

Hydraulic fracturing activities utilize stimulation fluids (typically 350,000 to 500,000 gallons per stage) stored in tanks at the well site. Following hydraulic fracturing of the wells, produced water will be collected in tanks for reuse in Coterra or other operators well development activities or it will be sent to a permitted beneficial reuse facility or disposal facility. Typically, only 10%-20% of the stimulation fluids are initially recovered following hydraulic fracturing of a well. Recycling, reuse and/or disposal of production fluids are anticipated to be on-going over the life of the well. Note that Coterra may manage fluids via alternative methods at the generation location or reuse location under the auspices of an approved Request For Approval of Alternative Waste Management Practices from the PADEP.

If an unintended release of regulated materials occurs at a well site, all material and waste will be recovered/containerized, characterized, labeled and transported off-site for disposal at an approved disposal facility.

The disposal of any waste material generated on site by contractors (i.e., preventative maintenance waste) is the responsibility of the contractor generating the waste. Contractor is responsible to manage and dispose such waste material per applicable regulations.

## 6.2 Typical Volumes of Generated Materials

The current volume of drill cuttings generated per well is typically 1,500 tons.

Coterra anticipates that initially approximately 30,000 to 100,000 gallons of recovered stimulation fluids be generated from each stage of the well.

During the production phase typically 100 to 500 barrels of production fluids may be stored on-site prior to removal for off-site beneficial reuse or disposal.

## 6.3 Fluid Recycle and/or Reuse Locations

Coterra will either directly reuse recovered fluids (i.e., produced fluids, workover fluids, storm water) in Coterra or other operators well development activities, send fluids to a permitted centralized treatment facility for beneficial reuse or send fluids to a permitted disposal location. Coterra utilizes the following approved facilities; however other facilities/contractors may be utilized upon approval by Coterra:

Coterra - A&M Hibbard Centralized Treatment Facility (including the beneficial reuse pug mill system for high solids material)
7111 S.R. 29
Springville, PA 18844
Contact: Luke Marsh
Phone: (412) 249-4202

C2G Shaskas Facility
120 Hart Road
Montrose, PA 18801
Contact: Jesse Bonnice
Phone: (570) 954-5458

Various Coterra Energy WMGR123 Permitted Facilities

Eureka Resources Williamsport
419 2nd Street
Williamsport, PA 17701
Contact: Tim Butter
Phone: (570) 323-2535

Eureka Standing Stone
34640 Route 6
Wysox, PA 18854
Contact: Tim Butter
Phone: (570) 323-2535

## 6.4 Disposal and Recycling/Reuse Frequency

Disposal and recycling/reuse options are variable depending on Coterra's well development activities at the time of waste generation.

### 6.5 Solids Disposal Locations

Coterra has identified the following approved solid waste disposal facilities; however other facilities/contractors may be utilized upon approval by Coterra:

Keystone Sanitary Landfill
249 Dunham Drive
Dunmore, PA 18512
Contact: Jim Eiden
Phone: (570) 343-5782

Alliance Landfill (Waste Management)
398 S. Keyser Ave.

Taylor, PA 18517
Contact: Bruce Whetstone
Phone: (800) 869-5566

Susquehanna Transfer, LLC
294 Ellsworth Drive
Montrose, PA 18801
Contact: Abby Taylor
Phone: (570) 432-0109

Waste Control Specialists LLC
9998 West State Hwy 176
Andrews, Texas 79714
Contact: Jay Britten
Phone: (432) 525-8612

Waste Recovery Solutions (Covanta)
343 King St
Myerstown, PA 17067
Contact: Jimmy Fulk
Phone: (717) 866-9955

Austin Master Services, LLC
801 North 1st Street
Martins Ferry, OH 43935
Contact: Nate Breidenbach
Phone: (610) 906-9698

## 6.6 Transportation of Wastes

The following transporters may be retained to haul waste material; however other contractors may be utilized upon approval by Coterra:

GDS Corporation
8283 State Route 29
Montrose, PA 18801
Contact: Rob Wagner
(570) 278-7118 (24 Hour)

Diaz Disposal
7686 State Route 167
Kingsley, PA 18826
Contact: Randy St. Clair
Phone: (570) 396-1918

RLE Enterprises
457 N Main St.
Moscow, PA 18444
Contact: Johnny Gentile
570-836-5496

Susquehanna Gas Field Services LLC (SGFS)
Frantz Road
PO Box 127
Meshoppen, PA 18630
Contact: Chris McGavin
Phone: (570) 833-0106

Holcombe Energy
185 Henry Holod Rd
Factoryville, PA 18419
570-836-8050

Mountain Energy Services
205 W. Tioga Street
Tunkhannock, PA 18657
Contact: Mandy Wilmot
Phone: (570) 878-2891

Resource Environmental Management, Inc.
36 Taylor Lane
Montrose, PA 18801
Contact: Jerry Washo
Phone: (570) 278-8392

Midosa LTD.
3238 Springfield Road
Columbia Cross Roads, PA 16914
Phone: (570) 529-2262

Costy's Energy Services
244 Grey Fox Road
Muncy, PA 17754
Phone: (570) 662-2752

All waste materials will be transported in accordance with all applicable state and federal Department of Transportation (DOT) regulations.

Waste transporters will maintain required records during transport. These records will be available to the PADEP upon request and maintained for a minimum of five years.

# ATTACHMENT 1 – Pressure Barrier Policy (in progress, may be included in work plans)

# ATTACHMENT 2 – Standard Operating Procedure Secondary Containment Dewatering

COTERRA

# Standard Operating Procedure

## Secondary Containment Dewatering

**Marcellus Business Unit (MBU)**

**May 2024**

**Standard Operating Procedure (SOP)**

**Secondary Containment Dewatering**

## Table of Contents


1.0 About this Document ..... 2
2.0 Regulatory Overview ..... 2
3.0 Process Narrative ..... 2
4.0 Documentation ..... 5
5.0 Communication Plan ..... 6
6.0 Company Contacts ..... 6
Attachment - Process Flow Diagram ..... 7
Attachment – Example MBU – Secondary Containment Dewater Form ..... 8

## 1.0 About this Document

| | |
|---|---|
| Purpose | This SOP is to communicate Coterra's requirements and detail the procedure to dewater unimpacted stormwater that accumulates in the secondary containment at well sites in Northeast Pennsylvania. This SOP provides guidance to personnel to determine if stormwater is unimpacted and can be discharged in a manner that does not adversely impact the environment. |
| Scope | This SOP is intended for all Coterra workers and/or contractors responsible for dewatering secondary containment. |

## 2.0 Regulatory Overview

| | |
|---|---|
| Overview | This document has been prepared according to 25 Pa. Code §§ 78a.60 & 78a.63a as well as Chapters 91, 92a, 93, 95, 102 and 105, The Clean Streams Law (35 P.S. § § 691.1—691.1001), the Dam Safety and Encroachments Act (32 P.S. § § 693.1—693.27) and the act."<br><br>25 Pa. Code § 78a.63a allows for an operator to request the discharge uncontaminated precipitation that collects in secondary containment.<br><br>This SOP provides the required procedures to provide equivalent or superior protections to the requirements in 25 Pa. Code § 78a.60(b). |

## 3.0 Process Narrative

| | |
|---|---|
| Step 1 – Include SOP in PPC Plan | Prior to discharging precipitation that accumulates in secondary containment Coterra must prepare a SOP and must include the SOP in the well site-specific Preparedness Prevention Contingency (PPC) Plan.<br><br>Coterra's EHS personnel manage these plans, please contact Coterra EHS to determine if a specific facility has the appropriate plan. |
| Step 2 - Characterization of Stormwater | Prior to discharging accumulated stormwater from secondary containment, the following conditions, as described 78a.60(b), must exist for each discharge at the time the dewatering occurs:<br><br>**All personnel conducting the below characterization process must be authorized by Coterra and be familiar with the use of characterization equipment and the contents of this SOP.**<br><br>1. pH of the discharge fluid is <u>not less than 6 nor greater than 9 S.U.</u> |

a. determined by pH paper or calibrated meter (e.g., Oakton PCTSTestr 5 or similar) capable of providing an instant/accurate result

2. Specific Conductivity of the discharge fluid is <u>less than 1 milliSiemen (mS)/cm (1,000 microOhms (µmHos)/cm)</u>
    a. Determined by a calibrated meter capable of providing an instant/accurate measurement (e.g., Oakton PCTSTestr 5 or similar)
3. There is no visible hydrocarbon sheen
4. There is no knowledge of a recent spill of a regulated substance to the secondary containment (identified during a Chapter 78a Containment Inspections)

<u>Water Quality Meter Procedure</u>

- Ensure meter has been properly calibrated according to the manufacturer's specifications (document meter calibration date of the MBU - Containment Dewater Form)
- Collect readings from each secondary containment structure
    - Document results on the MBU - Containment Dewater Form
- Rinse the probe thoroughly with distilled, deionized or organic free water and ensure the probe and electrodes are free of obvious corrosion or fouling
- Meter Specifications (equivalent or better)
    - pH Range: 0.0 to 14.0 S.U.
    - pH Accuracy: ± 0.01
    - Conductivity Range: 0.00 to 20.0 mS/cm
    - Conductivity Accuracy: ± 1% full scale

<u>pH Paper Procedure</u>

- Ensure pH paper is not expired
- Collect readings from each secondary containment by dipping the test strip into the fluid for time recommended by the manufacture
- Compare test strip to the manufacture provided color chart with the kit and document the results on the MBU - Containment Dewater Form.

Coterra personnel and designated contractors must review the attached process flow diagram and complete the MBU - Containment Dewater Form.

If containment water does not meet the above criteria, it cannot be discharged and must be managed as residual waste. If it meets the criteria above continue to Step 3 below.

### Step 3 - Discharge of Unimpacted Stormwater

1. Dewater to an adequate discharge location
    a. Refer to the site specific PPC Plan and associated SOP
    b. Discharge locations will be:
        i. An existing erosion & sedimentation control Best Management Practice (BMP) or Post Construction Stormwater Management (PCSM) BMP capable of receiving the stormwater at a flow rate no greater than it is designed to receive, or
        ii. A vegetated area in a manner to prevent direct discharge to surface waters. Vegetated areas will be capable of absorbing discharged water. All discharges will be completed in a manner to not create an erosion and sedimentation issue, a proprietary spreader bar device or other device may be utilized.
        iii. Discharge areas will not be within 200-feet of a water supply, within 100-feet of a watercourse nor within the floodplain.
    c. Do not discharge to a BMP if it does not appear to be functioning properly or lacks capacity to receive discharge water
    d. Do not discharge to an area if it is not adequately vegetated
    e. Do not discharge stormwater to frozen or saturated ground and/or ground that is significantly snow covered and therefore not capable of adequately absorbing the discharge water.
    f. Do not discharge unimpacted stormwater during or immediately following significant precipitation events to a ground surface that is not capable of receiving/absorbing the discharge water or immediately prior to an anticipated significant precipitation event.

g. If sediment loading is significant, utilize filter socks or other sediment control devices to prevent sediment build up at the discharge location.

2. Utilize a trash pump or similar style pump with associated discharge hose to dewater and discharge unimpacted stormwater to the discharge location.
   a. Example: Wacker Nueson PT3A trash pump with a 3-inch discharge hose
   b. If necessary, connect a proprietary spreader bar device to the discharge hose to increase the surface area of the discharge hose and disperse the stormwater in a manner to avoid the potential to create soil erosion at the discharge location. Note that the specific device utilized could change depending on available technology and/or improvements made to the proprietary device.
3. Estimate the volume of water discharged per dewatering event by current best management practice included in the MBU – Containment Dewater Form
4. Coterra personnel or designated contractors will be present during the entire duration of the dewatering event.

## 4.0 Documentation

| | |
|---|---|
| PPC Plan & SOP | Site personnel and designated contractors will have access to a copy of the site specific PPC Plan and SOP for each site. |
| Characterization of Stormwater | All characterization data will be collected on the MBU - Containment Dewater Form. Characterization data will be collected for each discharge event. These records will be maintained and can be made available to PADEP upon request. |
| Discharge of Unimpacted Stormwater | All data will be collected on the MBU - Containment Dewater Form. Discharge volumes will be calculated based on the pump rate and pump run time or determined via a calibrated flowmeter. Discharge volume data will be collected for each discharge event. These records will be maintained and can be made available to PADEP upon request. |

## 5.0 Communication Plan

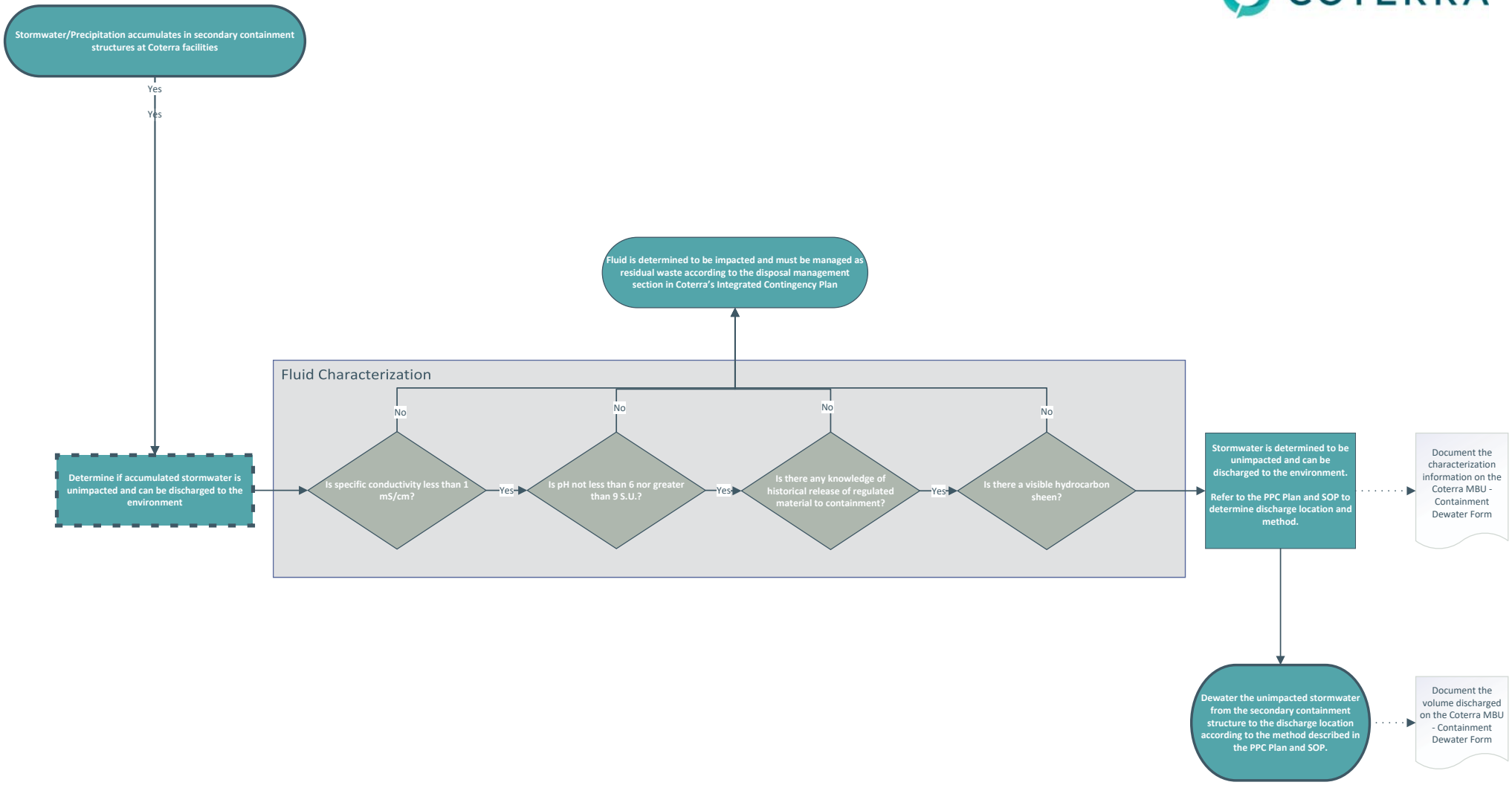
| | |
|---|---|
| Overview | Coterra personnel and designated contractors will utilize this SOP to explain the discharge process and refer to the site specific PPC Plan should they receive questions from the public. Inquiries regarding this SOP should be directed to Coterra EHS. |

## 6.0 Company Contacts

| | |
|---|---|
| Plan Administration / Regulatory Oversite | Luke Marsh – Lead EHS Specialist<br>724-814-0439<br>Luke.Marsh@coterra.com |
| Operational/Technical Support | Michael Oakley – EHS Specialist<br>570-767-2267<br>Michael.Oakley@coterra.com |
| Emergency Contact (MBU EHS On-Call #) | 570.737.4260 |

## Attachment - Process Flow Diagram

# Secondary Containment Dewatering - Process Flow Diagram



## Attachment – Example MBU – Secondary Containment Dewater Form

**(***The attached form is provided to present an example of the minimum information that Coterra will collect, Coterra may utilize a form with a different format and the form could be collected utilizing an Application on an Android or IOS device***)**

## MBU – Secondary Containment Dewater Form

COTERRA

### General Information

**Date:** _____

**Time:** _____

**Inspector Name:** _____

**Location:** _____

**Type of Containment:** _____

**Weather Conditions** _____ **Temperature (°F)** _____

### Meter Equipment Information

**Meter Type:** _____

**Has the above meter been calibrated according to manufacturers specifications?**

YES

NO

**Meter Calibration Date:** _____

### Characterization of Stormwater

***(If "YES" is answered to any of the questions in this section, the stormwater is determined to be impacted and you may not discharge)***

**Has there been any known recent releases of regulated substances to this secondary containment?**

YES

NO

**Is there the presence of an oil sheen?**

YES

NO

**Is Specific Conductivity of the containment fluid less than 1mS/cm (1,000µmHos/cm)?**

YES

NO

**Specific Conductivity (mS/cm):** _____

**Is pH of the containment fluid between 6 and 9 S.U.?**

YES

NO

**pH (S.U.):** _____

### Discharge of Unimpacted Stormwater

**Is the discharge location ground surface frozen or saturated?**

*(If "YES" is answered you may not discharge until the ground is unfrozen and not saturated)*

YES

NO

**Is there excess sediment or elevated suspended solids in the fluid (based on visual observation?**

*(If "YES" is answered you must utilize a filter sock or other sediment control device to prevent sediment build up at the discharge location)*

YES

NO

**Type of pump (model & pump rate)?** _____

**Pumping Start Date/Time?** _____

**Pumping Stop Date/Time?** _____

**Total Volume Pumped?** _____