Emergency Preparedness in the Front Range

Josh Carlisle
Environmental, Health, Safety and Regulatory Manager
Safety Always Comes First –
Protect our people, contractors and communities

**Standards**
- EHS Manual
- Emergency Response Plans
- SPCC Plans
- Regulatory Compliance Program
- API and other technical standards
- State and Federal Regulations

**Processes**
- Standard Operating Procedures (SOPs)
- Process Hazard Assessments
- Pre-startup Safety reviews
- Management of Change
- Process Safety Management
- Contractor Management systems
- Automated safety systems
- Peer reviews, audits

**People**
- Leadership, Experience
- Training
- Local Community collaboration
- Contractor relationships
- Commitment to Excellence

**Practices**
- BMPs:
  - Noise mitigation
  - Electric rigs/facilities
  - Design features
  - Water recycling
- Community Engagement
Extraction Oil & Gas
Emergency Preparedness and Planning

Trained and Experienced Operations Personnel
• Trained, experienced, professional staff
• ICS 100/200 training for all field staff and working on 300 for field leaders
• Weekly Tailgate discussions
• Monthly table top exercises
• Annual emergency response training

Rigorous Preparedness Planning
• 101 Training for First Responders
• Tactical response plan for all facilities, the majority of which in conjunction with local departments
• Site tours and inspections with local departments
• Simplified Table Top trainings with local departments
• Enhanced Table Top trainings planned and coordinated via third party
• Full Scale on-site drills
What to do when an incident occurs?

1. Initial Incident Response
   - If appropriate, perform initial response by mitigating spills, performing first aid, or extinguishing a controllable fire.
   - Evacuate the area if necessary and call 911 when appropriate.

2. Initial Notification
   - Make contact with your supervisor or EHSR using the numbers listed here or on your response card.
   - Operations supervisor, Manager, and EHSR communicate and initiate follow-up response.

3. Internal Incident Response
   - Operations:
     - Supervisor/Manager to scene to establish incident command.
     - Dispatch additional resources/equipment needed (e.g., Vac. Truck, skid steer).
     - Work with EHSR on unified command.
   - EHSR:
     - Dispatch Field Support staff and other support resources necessary.
     - Initiate initial notification procedure.
       - If necessary, notify: Public Relations, Vice President, Agencies.

Emergency Response Flow Chart

1. Incident Occurs
   - Perform First Aid
   - Contact Immediate Supervisor
   - Assess the Situation
   - Mitigate Spill or Gas Release

2. Initial Incident Response
   - Establish Incident Command
   - Dispatch Additional Resources/Equipment
   - Dispatch Field Support

3. Internal Incident Response
   - Establish ERT Communication Plan
   - Dispatch EHSR Support Staff
   - Initiate Unified Command
   - Assume Incident Command
   - Establish External Notification
   - Manage External Notifications

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"Protecting our people, contractors, and communities."
ASH 9-B FACILITY
1300 Ash Ave
Greeley, CO
410-130-3380; W-303-673-8550

NOTIFICATIONS
1. Extraction 24-Hour Hotline
   1-877-375-5700
2. National Response Center
   800-424-8802
3. CRCC/Emerald Reclamation
   720-312-2392 or 970-531-2777
4. EPA Region VIII
   303-825-8652
5. Weld County Communications
   611
6. Weld County OEM
   970-352-7500
7. Colorado Oil and Gas Conservation Commission
   303-894-2100
8. Colorado Dept of Public Health and Environment
   877-723-2529

RESPONSE OBJECTIVES
Ensure safety of the public, first responders, Extraction employees, and contractors. Minimize the impact to the environment and local community. Contain and recover released products to the extent possible.

CRITICAL RECEPTORS
1. Surrounding Businesses
2. Surrounding Residential Areas
3. Poudre River to the North
4. Waste Water Treatment Facility (WW)

Note: The Tactical Response Cadastre reference tools are intended to provide guidance during initial area exercise. Placement of reference points may need to be adjusted accordingly to site specific conditions. In the event of emergency response personnel contact area evidence, contact Extraction as needed.

Legend:
- Hot Zone
- Warm Zone
- Cold Zone

Acknowledgments:
- Cadastre Design
- Development by CRCC, LLC

Water Treatment Facility
Poudre River

Fire Hydrant
TACTICAL RESPONSE

After assessing the incident level and contacting the appropriate parties, the following steps will need to be taken for the tactical response:

1. Implement National Incident Management System (NIMS) Incident Command System (ICS)
2. Assess hazard site, workers, and public
3. Safety Officer should complete Form EOS 208 – Safety Management
4. Conduct Job Safety Briefing
5. Assess property and environmental impacts
6. Deend EOS 201 – Incident Briefing and EOS 202 – Incident Objectives
7. Implement response actions:
   a. Contain spills or leakages
   b. Contain or stop any fuel or oil burning
   c. Contain spills on ground and any surrounding drainage ways
   d. Recover spilled materials
   e. Dispose of recovered materials properly
   f. Document site conditions and activities
   g. Document impacts to human, economic, and cultural resources
   h. Document site restoration/remediation activities

See the Extraction Emergency Response Plan for the full list of NIMS/ICS forms.

FLOW STATIONS – 30 DAY AVERAGE (IP)

<table>
<thead>
<tr>
<th>Gas (MCF/D)</th>
<th>On (HBU/D)</th>
<th>Off (HBU/D)</th>
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WELL PAD LIQUID STORAGE (GAL)

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<tr>
<th>Capacity</th>
<th>Winter</th>
<th>Summer</th>
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<tr>
<td></td>
<td>18,460</td>
<td>5,600</td>
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RESPONSE RESOURCE CONTACT INFORMATION

EXTRACTION OIL & GAS CONTACT INFORMATION

Name: Main Phone
24-Hour Line: 970-355-5540

NEAREST LEVEL TRAUMA CENTERS

Name: Address: 24-Hour Phone
North Colorado Medical Center 203 E 20th Street 970-344-2221
Medical Center of the Rockies 1700 30th Street 970-249-2500

STATE, FEDERAL, MUNICIPAL EMERGENCY RESPONDERS

Name: Main Phone
Weld County Communications 911
Weld County OEM 970-350-1100
Weld County Sheriff’s Office 970-350-1100
Greeley Fire District 970-350-1000
National Response Center 800-427-8080
CODC Field Supervisors 719-302-0123 or 719-575-1277
ERG Region 8 303-212-6312
Department of Transportation 866-760-4300

RESPONSE CONTRACTORS

Contractor Type | Name | Main Number | Main Phone |
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<tbody>
<tr>
<td>OEOU</td>
<td>Evenstar Environmental</td>
<td>800-500-0011</td>
<td>707-616-0011</td>
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<tr>
<td>OEOU</td>
<td>Eastern Environmental</td>
<td>800-500-0011</td>
<td>800-400-0011</td>
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<tr>
<td>OEOU</td>
<td>Electro Oil</td>
<td>203-302-0004</td>
<td>908-400-0004</td>
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<td>OEOU</td>
<td>Response Management, LLC</td>
<td>800-302-0004</td>
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ADDITIONAL CONTACTS

Name: Main Phone
Weld County TR 970-355-1529

RESPONSE OBJECTIVES

Ensure safety of the public, first responders, extraction employees, and contractors. Minimize the impact to the environment and local community. Contain and recover released or ejected oil to the extent possible. The following response objective checklist shall be followed:

SAFETY – PROTECT LIFE
- Evaluate and account for all personnel
- Isolate potential ignition sources
- Notify emergency services immediately, as needed (911, Fire, EMT)
- Identify hazardous substances and incidents (request SDS)
- Establish site control (perimeter control and evacuation needs)
- Identify all impacted areas
- Develop Site Safety Plan (EOS 201) and Medical Plan
- Continuously assess the hazards and risks

RESPONSE – OCCUPANT STABILIZATION
- Conduct notifications to external agencies and internal personnel
- Assign one site liaison to the Fire/Incident command center
- Identify and implement staging area support resources
- Become a response company for equipment and manpower as needed
- Active response to contain and recover product/material
- Establish command post and field communications
- Implement waste handling and disposal procedures as required
- Establish flight traffic restriction if required
- Implement decontamination and demobilization procedures when appropriate

ENVIRONMENTAL – PROTECT THE ENVIRONMENT
- Identify, prioritize, and protect environmentally sensitive areas
- Establish and maintain a risk reduction protocol if required
- Notify release of hazards are impacted
- Conduct visual assessments (all tracking and surveillance)
Our Primary Purpose:
• First Responder training and sharing of response best practices

• Share response resources and abilities among members and first responders and to provide support to members in the event of an emergency in the DJ Basin

• Proactive, non-regulatory initiative by industry to earn social license to operate by improving response preparedness and readiness

• Build relationships to provide Mutual aid support
What are we trying to accomplish

- **Response Resource Tracking.**
  - Create, maintain a list of critical available resources, government agencies or other private sector response organizations
  - Establish foam resource list and dispatch capabilities

- **Mutual Aid.**
  - Establish broader mutual aid goals for the basin beyond neighboring districts

- **First Responder Training.**
  - Present oil and gas 101 for Fire Fighters, oil and gas 101 for Law Enforcement
  - Hands on oil and gas training facility for local responders (Noble Energy- Greeley)
  - Williams foam proportion training

- **Best Practices.**
  - Identify, coordinate and establish Best Practices and adopted standards
  - Unified Command
  - Examples of Best Practices shared (tactical response plans, spill response plans, etc.)
Participants

- **Industry participants**

- **Government participants**
  - Emergency Managers: Weld County, Broomfield County
  - Colorado Oil and Gas Conservation Commission
  - 26 Fire Departments participating
  - State of Colorado Patrol HAZMAT
  - PHMSA, EPA
Are there enough foam resources in the basin to handle an emergency?

Facts:
• No single department can handle a large incident alone

• Deployment locations can cover almost all of the DJ within 1-hour

• Standardization of equipment allows for mutual aid

• All first responders trained on same equipment types promotes response effectiveness
Focus: Population centers- then response timing

**Red** = current foam resources

**Green** = proposed sites for new foam resources

Foam Resource deployment
Based on 1-hour response from full time manned fire stations.

1-hour – used as follows:
- 10 minute trailer hook-up
- 40 minute travel at 40mph*
- 10 minute set-up

* - pickup truck with 6,000lb trailer is not a practical “lights & sirens” response vehicle. “L&S” simply requests “right of way”.
**Recommendations**

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<th>ITEM</th>
<th>Cost</th>
<th>Number of Units</th>
<th>Total Cost</th>
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<tbody>
<tr>
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<td>$45,042</td>
<td>5</td>
<td>$225,210</td>
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<tr>
<td>1%×3% Thunderstorm Foam Concentrate AR-AFFF 265 gallon totes</td>
<td>$9,101</td>
<td>10</td>
<td>$91,010</td>
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<td>FP additive to totes or Tote Blankets 12v</td>
<td>$1,060</td>
<td>10</td>
<td>$10,600</td>
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<tr>
<td></td>
<td>$450</td>
<td>10</td>
<td>$4,500</td>
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<tr>
<td>300' of 3” hose</td>
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<td>5</td>
<td>$9,320</td>
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<td>5</td>
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<td><strong>$326,820 (O&amp;G)</strong></td>
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