Local Emergency Planning Committee

(LEPC)

Tuesday, January 20, 2018
2:00pm to 4:00pm

Council District 2
Introduction and LEPC Business Meeting
Welcome and Introductions
- Gary Freeman, LEPC Vice-Chairperson
- Matt Mueller, Deputy Director of Denver OEM
- Participant Introductions

Business Meeting
- Membership Process
- Election of the Vice-Chair

LEPC Overview

Region 8 Incident Report

Overview of Council District Two’s Risk

Case Study: ARKEMA Chemical Plant

Guest Speaker: Marcelo Ferreira: Denver Water’s emergency preparedness

The Next LEPC Meeting
Election of the Vice-Chair
LEPC Membership

1. Attend two LEPC meetings and indicate that you wish to be a member on the LEPC sign in sheet.
2. Be voted in at the next LEPC meeting.
3. Continue to participate and attend meetings. Please send an alternate representative if you cannot attend.
4. To maintain membership, don’t miss more than four meetings in a row without sending an alternate.
LEPC History and Purpose

• Mandated under the U.S. EPA’s Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986
• Collaboration between industry, government, and community
• Focus on hazardous materials and chemical safety
• Open, non-regulatory forum for discussion, information sharing, and planning
• Receive and retain Tier II reports
EPA Region 8 Accidental Release Information
NRC Notification to EPA Region 8 - % by State (2006-2017)

Total Incidents Reported
EPA Region 8
2006-2017

- CO: 35%
- UT: 23%
- WY: 19%
- ND: 11%
- SD: 4%
- MT: 8%

Reflects all reports to National Response Center over period (2006-2017)
Region 8 Incidents by Material Type
2006-2017

- HazMat 29%
- Oil 35%
- Other 36%
NRC Notifications to EPA Region 8 -- by Material Type & State (2006-2017)

COLORADO

- Other
- Oil
- HazMat

INCIDENTS REPORTED:


- 2006: Other 140, Oil 114, HazMat 186
- 2007: Other 124, Oil 59, HazMat 227
- 2008: Other 106, Oil 56, HazMat 200
- 2009: Other 65, Oil 51, HazMat 158
- 2010: Other 62, Oil 61, HazMat 161
- 2011: Other 45, Oil 47, HazMat 233
- 2012: Other 51, Oil 47, HazMat 203
- 2013: Other 44, Oil 58, HazMat 246
- 2014: Other 44, Oil 59, HazMat 143
- 2015: Other 61, Oil 60, HazMat 169
- 2016: Other 32, Oil 45, HazMat 151
- 2017: Other 54, Oil 53, HazMat 163
Colorado Incident Causes (2006-2017)

<table>
<thead>
<tr>
<th>Cause</th>
<th>Reports</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derailment/Transport Accident</td>
<td>535</td>
<td>15%</td>
</tr>
<tr>
<td>Dumping</td>
<td>224</td>
<td>6%</td>
</tr>
<tr>
<td>Operator Error</td>
<td>426</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>967</td>
<td>27%</td>
</tr>
<tr>
<td>Equipment Failure</td>
<td>620</td>
<td>18%</td>
</tr>
<tr>
<td>Unknown</td>
<td>773</td>
<td>22%</td>
</tr>
</tbody>
</table>

Accident Causes Colorado 2006-2017

Reflects all reports to National Response Center over period (2006-2017)

EPA Region 8 - Incident Type (2006-2017)

Source of Release:
- Water vessel (ship or boat) accident: 35
- Aircraft accident: 61
- Unknown sheen on water: 128
- Continuous release: 114
- Railroad incident: 538
- Pipeline incident: 574
- Railroad non-release incident: 801
- Storage tank incident: 987
- Wheeled vehicle (car or truck) accident: 2508
- Fixed site (e.g., incident at a building): 4307

Incidences Reported: 5000, 4500, 4000, 3500, 3000, 2500, 2000, 1500, 1000, 500, 0
<table>
<thead>
<tr>
<th></th>
<th>Colorado</th>
<th>Montana</th>
<th>North Dakota</th>
<th>South Dakota</th>
<th>Utah</th>
<th>Wyoming</th>
<th>Region Totals</th>
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</thead>
<tbody>
<tr>
<td>Incidents:</td>
<td>3554</td>
<td>831</td>
<td>1043</td>
<td>404</td>
<td>2318</td>
<td>1917</td>
<td>10,067</td>
</tr>
<tr>
<td>Reported fatalities:</td>
<td>259</td>
<td>98</td>
<td>61</td>
<td>26</td>
<td>111</td>
<td>47</td>
<td>602</td>
</tr>
<tr>
<td>Reported hospitalizations:</td>
<td>427</td>
<td>54</td>
<td>75</td>
<td>32</td>
<td>130</td>
<td>78</td>
<td>796</td>
</tr>
<tr>
<td>Reported injuries:</td>
<td>551</td>
<td>69</td>
<td>107</td>
<td>35</td>
<td>143</td>
<td>98</td>
<td>1,003</td>
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<tr>
<td>Number of people evacuated:</td>
<td>8043</td>
<td>167</td>
<td>525</td>
<td>201</td>
<td>3531</td>
<td>514</td>
<td>12,981</td>
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<tr>
<td>Reported property damage:</td>
<td>$11,103,847</td>
<td>$9,671,491</td>
<td>$9,109,128</td>
<td>$4,076,533</td>
<td>$12,902,800</td>
<td>$7,369,135</td>
<td>$54,232,934</td>
</tr>
</tbody>
</table>
NRC Notifications to EPA Region 8 -- Top 10 Counties: Colorado (2006-2017)

Top Ten Counties - Colorado
2006-2017

- PUEBLO: 113
- MESA: 116
- LARIMER: 129
- ARAPAHOE: 142
- EL PASO: 188
- GARFIELD: 194
- JEFFERSON: 196
- DENVER: 317
- WELD: 326
- ADAMS: 369

Incidents Reported
Council District Two’s Risk
- Disease Outbreak/Bioterrorism
- Hazardous Materials Incident
- Terrorism
- Flooding
- Destructive Weather
- Utilities Interruption/Failure

- National State of Emergency
- Earthquake
- Fire (Structural, Industrial, Wildland)
- Active Shooter
- Aviation Incident
- Cyberterrorism
- Drought

- Civil Unrest
- Ground Subsidence/Sinkholes
- Agricultural Disease Outbreak
- Cyber Crime
- Nuclear Weapon Accident/Incident
District Two’s Common Chemicals

- Chlorine
- Lead Acid Batteries (Sulfuric Acid and Lead)
Questions and Discussion
Case Study: ARKEMA Chemical Plant

Case study information from the Chemical Safety Board (CSB)
Timeline Related to Arkema Inc. Chemical Plant Fires 2017

August 24
Tropical storm Harvey becomes Hurricane Harvey

August 25
Arkema plant fully shut down and the Hurricane ride-out crew are all on-site. The rain continues through the day and the water level begins to rise.

August 25
Arkema plant shuts down units and prepares for Hurricane Harvey

August 26
2:00 AM - Water rises to the transformer level and cuts power to the entire Arkema plant.

August 27
Rain continues and the water levels continues to rise. As water levels threaten electrical equipment, buildings, including low temperature warehouses storing organic peroxide products are turned off. Organic peroxide is moved into trailers and other buildings to stay cold.

August 28
As the water continues to rise workers move all the low temperature organic peroxide into nine refrigerated trailers. The rising water prevents the workers from moving three of the trailers to higher ground.

August 31
1:31 AM - Black smoke reported from Arkema plant, first trailer combusts

September 3
3:40 PM - Remaining six trailers are intentionally ignited by Harris County Emergency Responders

September 1
5:00 PM - Two more trailers begin to combust

September 4
1:00 AM - Evacuation zone is lifted from around the plant
Discussion

1. Do facility operators know if their facility is near a floodplain?
2. Have facilities reviewed their plan and made sure you’re ready for extreme events?
3. Do responders know what to do if you received a call from a plant stating they are having a major problem?
4. What public information would need to be pushed out to the community?
5. What would your organization’s role be in an event like this one?
Guest Speaker: Marcelo Ferreira
Denver Water Emergency Preparedness
Agenda

- Denver Water Overview
- Denver Water Emergency Preparedness
Denver Water System - Overview

- Largest and oldest water utility in the state
- Third largest property owner in state
- Infrastructure located in 12 counties from Western slope to Eastern plains
- Own and operate 18 dams
- Three treatment plants / 1 recycling plant
- Over 3,000 miles of distribution pipelines
- 18 potable pumping stations, 3 recycled and 2 raw water
- Serve 1.4 million people

We serve about a quarter of the state’s population with less than 2% of all water, treated and untreated, in Colorado.
EMERGENCY PREPAREDNESS
Prevention

- Regular inspection of all facilities
- Regular maintenance of all facilities
Preparedness

- Response Plans
- Training
- Drills/Exercises
Regulatory Agencies

- Federal Energy Regulatory Commission (FERC)
- U.S. Environmental Protection Agency (EPA)
  - Complying with the Public Health Security & Bioterrorism Preparedness and Response Act of 2002
- Colorado Department of Public Health & Environment (CDPH)
  - Regulation 84
Training & Exercising

• Training & Exercise Plan (TEP) developed
• Program Priorities
  – **Incident Command**: managing tactical operations at the incident site.
  – **EOC Operations**: supporting on-scene response
  – **Communications**: redundant communication throughout the incident
  – **Safety & Security**: promoting safety and security in the workplace
  – **Environmental Compliance**: regulatory compliance
  – **Emergency Awareness**: increasing the understanding of the hazards to Denver Water and the procedures outlining response
Partnering With Local First Response Agencies

- Denver Water provides copies/access the facility’s ERP
- Denver Water provides access to our facilities for emergencies, training and exercise opportunities
- Denver Water will provide notification to first response community
- Local jurisdictions provide notification to local jurisdiction, evacuations, sheltering in place, response, recovery, etc.
MARSTON TREATMENT PLANT OVERVIEW
Facility Information

- Operations began in different iterations before 1924
- 24/7 security
- Provider of potable water for domestic, industrial, and agriculture purposes
Notification

• Notifications
  – Level 1 (highest) – internal notifications and external notifications to all pertinent stakeholders.
  – Level II (high/low) – internal notifications and external notifications to all pertinent stakeholders.
  – Level III (low/high) – internal notifications.
  – Level IV (low/low) – internal notifications.

*Additional details are available in the Emergency Action Plan (EAP)*
Training & Exercising

• Mandatory training for all plant employees
  – HAZWOPPER
  – Annual Risk Management Program Training
  – Annual Emergency Response Plan Training
  – Self-contained breathing apparatus (SCBA)
  – Chlorine Tank Repair Kit
  – Donning level A and B PPE

• Exercises
Thank you!
It’s Your LEPC

• How can we make the LEPC more relevant to you?
• What topics would be of interest?
• Would you like to speak at an LEPC to share best practices?
• Would a newsletter be helpful? If so, how frequently should it be sent out?
When: March 20, 2018 from 2:00 to 4:00 PM

Where: La Alma Recreation Center, 1325 W 11th Ave., Denver, 80204

Guest Speaker: CFATS

For additional information or to be added to the Denver LEPC distro list, please contact:

Carolyn Bluhm at 720.725.3084
  ➢ Carolyn.Bluhm@denvergov.org

David Powell at 720.865.7897
  ➢ David.Powell@denvergov.org

➢ visit www.denvergov.org/oem
• Training and information

- Denver OEM Twitter Account: https://twitter.com/DenverOEM
- Denver Hazard Mitigation Plan: www.denvergov.org/hazardmitigation
- Department of Environmental Health: https://www.denvergov.org/EnvironmentalHealth
- Denver Maps: www.denvergov.org/maps
- Ready.gov: www.Ready.gov
- Environmental Protection Agency (EPA) Region 8 Preparedness Unit Newsletter: www.epa.gov/emergency-response/region-8-preparedness-unit-newsletter-paratus
- Denver Urban Waterways Restoration Study: www.denvergov.org/content/denvergov/en/denver-waterways.html
- Denver Ready Programs: www.Denvergov.org/OEM
City and County of Denver
Office of Emergency Management and Homeland Security
Meeting Agenda

Meeting Name: Local Emergency Planning Committee (LEPC)

<table>
<thead>
<tr>
<th>Date of Meeting: (MM/DD/YYYY)</th>
<th>Time:</th>
<th>Location:</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/20/2018</td>
<td>2:00 PM – 4:00 PM</td>
<td>Southwest Rec Center, 9200 West Saratoga Pl, Denver</td>
</tr>
</tbody>
</table>

Agenda Prepared By: David Powell

1. Meeting Agenda (describe purpose and desired outcomes/outputs):
   - Welcome and introductions
   - Business meeting and election of vice-chair
   - LEPC overview
   - Region 8 Incident Report
   - Overview of Council District Two’s Risk
   - Case Study: ARKEMA Chemical Plant
   - Guest Speaker Marcelo Ferreira: Denver Water’s emergency preparedness
   - LEPC feedback and suggestions
   - The next LEPC meeting

2. Desired Meeting Participants (identify organizations to participate in meeting):
   - Denver Police Department
   - Denver Fire Department
   - Denver Office of Emergency Management
   - Public health
   - Transportation organizations
   - Environmental professionals
   - Chemical facilities
   - Community groups
   - Media

3. Meeting Action Items (identify action items or decisions to be made during meeting):
   Action Items and Decisions to be made:
   - Elect Vice-Chair
   - Educate citizens on chemical hazards in their council district
   - Inform industry and citizens about Denver Water’s emergency preparedness programs
   - Discuss ways to create a collaborative preparedness strategy between facilities, the community, and responders

4. Next Meeting (if required):
<table>
<thead>
<tr>
<th>Date: (MM/DD/YYYY)</th>
<th>Time: (24-hour)</th>
<th>Location:</th>
</tr>
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<tbody>
<tr>
<td>03/20/2018</td>
<td>14:00–16:00 Mountain</td>
<td>La Alma Recreation Center 1325 W 11th Ave., Denver, 80204</td>
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</tbody>
</table>

Complete meeting agenda prior to meeting and post to shared S:/Meeting Minutes folder with meeting minutes.
1437 Bannock Street #3, Denver, Colorado 80202 / 720-865-7600 (Main) / EOC.Operations@DenverGov.org
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