Quick Incident Summary

- 1324hrs on March 5
- 21 of 105 cars derailed
- Crude oil released to ground & burned
- Initial response focus =
  - Life safety
  - Incident stabilization
  - Protection of environment
- 415 personnel initially
  - Local (City/Co/Township), State, Federal, Contractors
Initial Response

• A soil berm was conducted between the derailment site & the river

• Containment boom was placed in the river as a precautionary measure

• Fire service attempted to extinguish / control fire(s)
Contingency Planning - Modeling

This quick response used a weather prediction model; and was not coordinated with other IMAAC participants. Coordination will follow, and product will be updated as needed.
Containment
Underflow Dam

Hard Boom
Pom Poms
Sausage Boom
Containment
Response Activities

- Extinguished fire, investigate, assess scene
  - Roadway access to difficult area
- Vacuumed out crude from impacted cars & ground
- Removed damaged cars from right-of-way
  - Emptied, cleaned, purged, cut up & scrapped cars (hauled out by truck)
- Excavated contaminated soils under tracks
- Replaced damaged track & resume track ops
  - 100 trains had backed up
Assessment - Friday, March 6
Saturday, March 7
Traffic Control Plan

- Call route to Depot Point Staging Area and Incident Command
  - Check out at Security Checkpoint

- Traffic Control Plan Route to Northwest:

- Secondary Muster Point

- Primary Muster Point

- Traffic control plan route from southwest:

- Exclusion Zone

- Entry point from Pile Icon: Road Staging Area
  - Check in at Security Checkpoint
PPE Planning

- Zone delineation
- VOCs
- LELs
Monitoring & Sampling

- Air
  - Fingerprint, SDS, analysis
- Surface Water
- Soil
(This particular) Bakken Crude was Green
Staging & Clearing Wreck
Air

Fixed @ 9 locations 3/5 – 3/11
- 4300 readings recorded w/ no detections
- PM2.5 consistent w/ ambient readings

Grabs @ 5 locations 3/5 – 3/12
- 75 samples taken, no detections for crude above health guidelines

Benzene
Carbon Monoxide
Hydrogen Sulfide
PM 2.5 Particulates
Lower explosive limit
Nitrous Oxide
Sulfur Dioxide
Toluene
VOCs
Surface Water

Field parameters: (depth, flow, DO, ORP, temp, cond, pH)
VOCs
PNAs (SVOCs)
BTEX
TPHs
(DRO, GRO, ORO)

- No exceedances of Illinois EPA Surface Water Quality Standards

4 up, source, 5 down
3/7 to 3/11

2 up, source, 2 down
3/11 to 3/27

2 up, source, 2 down
If > 1” rain
3/27 to present
Area of Most Significant Impact – 12 cars
- 143 samples from 35 borings screened
39 samples to lab

PNAs n(0'-3', 4'-8')
BTEX
TPH (DRO, GRO, ERO)
Remediation Activities

• Remove crude (mass balance)
• Sheet pile impacted area
• Excavate impacted soils
  • Disposed of at Subtitle D landfill
• Flush ballast / ramp & recover oil
  • Water Treatment
  • FOSC exercised NCP, CWA Sect. 311(c) & NPDES Section 122.3(d) authority to exempt NPDES permit until state issued permit
• Backfill & restoration (USACOE)
• Long term monitoring
Equipment
Sheet Pile Containment
Excavation
Soil Flushing Set Up
# Metrics

<table>
<thead>
<tr>
<th>Product</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil (recovered)</td>
<td>221,421 gal</td>
</tr>
<tr>
<td>Contact Water (treated)</td>
<td>1,700,000 gal (+)</td>
</tr>
<tr>
<td>Contaminated Soil</td>
<td>4,748 tons (+)</td>
</tr>
<tr>
<td>Tankers wrecked</td>
<td>12</td>
</tr>
</tbody>
</table>
Response/Recovery Transition

- IL-IMT met with USEPA to discuss integration
- UC selected based on:
  - **Responsibility, Authority, Expertise**
- Day 3 IAP = combination of BNSF IAP & IL-IMT IAP from Day 2
- IL-IMT worked with USEPA to establish transition plan
- IL-IMT stepped back to support role for Day 5 IAP
- IL-IMT stepped out of command structure on Day 6
Investigation

- USDOT Pipeline & Hazardous Materials Safety Administration (PHMSA) inspected & sampled product inside cars

- USDOT Federal Railroad Administration (FRA) inspected track & rail infrastructure to determine cause of the derailment

- USCG Atlantic Strike Team & OSHA provided assistance with Health & Safety during response operations
‘IMT’ Meetings Progression
IC to UC Transition Issues

• Composition of UC (US EPA, BNSF, JDEMA, IEPA)
  • PHMSA, FRA, OSHA, IEMA, IL IMT left off
• Selection of 1 individual was challenging:
  
  BEFORE = AFTER
  • 1 IC = 4(UC)
  • 5 PSCs = 1 (CTEH)
  • 6 SOs = 1 (BNSF)
  • 4 OPSs = 1 (BNSF)
  • 3 ENVLs = 1 (ARCADIS)

• Strategy to populate KLPs w/ qualified personnel w/ longevity on site (EPA shadow or deputy)
• IAP software utilized
Planning Meeting – Day 6
OPS Briefings

DAY 6

DAY 12
ICS 202: Incident Objectives

Objectives(s)
1. SAFETY OF RESIDENTS & RESPONDERS
2. PROTECT ENVIRONMENT AND CONTROL RUNOFF
3. STABILIZE SITE
4. MONITOR ENVIRONMENTAL CONDITIONS/IMPACTS
5. FACILITATE INVESTIGATIONS & PRODUCT RECOVERY/REMEDIATION
6. RESTORE DERAILMENT SITE
7. ENSURE SAFE AND EFFECTIVE TRACK OPERATIONS
8. ENSURE CONSTRUCTION OF SITE CONTROLS

Operational Period Command Emphasis

INITIATE TRANSITION OF REGULATORY OVERSIGHT FROM USEPA TO ILEPA
RELOCATE COMMAND POST
COMMUNICATE HEALTH AND SAFETY PLAN TO ALL RESPONDERS
TRAIN RESPONDERS ON-TRACK SAFETY
COMMUNICATE CONTINGENCY PLAN TO ALL RESPONDERS
CONTINUE COMMUNICATIONS AMONG RESPONDERS AND RESPONSE AGENCIES
IMPROVE COMMON OPERATING PICTURE AT THE SITE AND THE ICP
UPDATE THE CONTAINMENT/CONTINGENCY PLAN

LIMITATIONS/CONSTRAINTS

TRACK WINDOWS

General Situational Awareness
ENVIRONMENTAL SAMPLING CONTINUES (SURFACE WATER ONLY)
INSTALLATION OF SHEETPILING WALL
DELIVERY OF WATER TREATMENT SYSTEM
COMMAND SITE HAS NIGHTTIME SECURITY ONLY
WORK SITE-still has 24HR SECURITY
- 24 Work Plans were developed, commented on & approved in a 2 week period
- Heavy involvement from OPS (ideas, suggestions, experience, comments)
  + USCG input based on Mt Carbon incident
Communications - VIPs
• Operational objectives analyzed:
  • Notification
  • Initial Response
  • Incident Stabilization
  • Transfer of Command

• Analysis of core capabilities:
  • Public information & warning
  • Environmental response / H&S
  • Operational Coordination
  • Situational Assessment
  • On-Scene Security & Protection
  • Operational Communications
  • Planning
  • Intelligence & Information Sharing
Improvement Plan Highlights

• Policies and procedures
  • EOP Updates
    • Declaration of a disaster
    • Chain of Command
    • Decision-making & spending authority
    • Train derailment annex
  • Release of information to the public
    • Emergency notification system
    • Facebook & Twitter accounts established

• Training
  • Galena FD attended SERTC (PER-327)
  • Coalition-building with surrounding counties

• Equipment
  • Cell phones, comms tower, light tower
  • MCP upgrades
  • Updated inventory of resources county-wide
State & Regional Impacts

• Joint EPA / AAR / Class I coordination meetings

• EPA & States seeking to share & coordinate ER planning info/resources w/ Class 1 RRs sending unit trains thru Region 5
  • Joint trainings (TRIPR, TRANSCAER, etc.)
  • Local tabletop exercises (3-4 completed in 2016)
  • Full scale exercises
  • Participation in Regional Response Team (RRT) meetings
Thank You!

http://www2.epa.gov/il/galena-train-derailment
http://www.epaosc.org/bnsfgalenaspill

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