Galena Train Derailment
RRT 5 Update
4/22/2015

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Outline

- Incident / Response
- Environmental
  - Air, Surface Water, Soil
- Recovery / Remediation
- Transition
- Issues of Interest
- Questions
Incident Summary

- 1324hrs on March 5
  - Reported to NRC @ 1452hrs
- 21 of 105 BNSF train cars derailed @ MP 171.6
- Crude oil released to ground & burned (majority)
- Initial response focus =
  - Life safety
  - Incident stabilization
  - Protection of environment
- 415 personnel initially
Initial Response Activities

- Establishment of safe zone / evacuations
  - 6 homes < 1 mi
  - 4 homes occupied
  - 2 individuals evacuated / 7 refused

- Concern of additional explosion(s) on March 6

  IMAAC Model run
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.
Response Management

- IEMA/Galena FD used NIMS from the onset
  - 2 separate ‘IAPs’ being developed (BNSF & IL IMT)
  - NOFI issued to BNSF by USEPA
  - USCG, IEPA & USEPA coordinated from Day 1
  - US EPA deployed ‘IMT Lite’ (4 OPs, PSC, SITL & PIO)
- USEPA / IEMA established UC on day 4
  - USEPA
  - IEPA
  - Galena FD / Jo Daviess County EMA
  - BNSF Railway
- 1st combined IAP developed for OP#4
  - USEPA facilitated integration
IC to UC Transition Issues

- Composition of UC
  - PHMSA, FRA, OSHA, IEMA, IL IMT left off
- Selection of 1 individual for KLPs challenging

BEFORE = AFTER

- 1 IC = 4 (UC)
- 5 PSCs = 1 (CTEH)
- 6 SOs = 1 (BNSF, USCG)
- 4 OPSs = 1 (BNSF)
- 3 ENVLs = 1 (ARCADIUS)

- Strategy was to populate KLPs with qualified personnel w/ longevity on site (EPA deputy)
- CTEH’s IAP software utilized successfully
Response Activities

- Extinguished fire, investigate, assess scene
- Roadway access to difficult area
  - 404 permit issued by USACE
- Vac’d out crude from impacted cars & ground
- Removed damaged cars from right-of-way
- Excavated contaminated soils under tracks
- Replaced damaged track & resumed track ops
  - 100 trains backed up
- Emptied, cleaned, purged, cut up & scrapped cars (hauled out by truck)
12 impacted cars
Monitoring & Sampling

- Air
- Product
  - Fingerprint, SDS, analysis
- Surface Water
- Soil
Benzene
Carbon Monoxide
Hydrogen Sulfide
PM 2.5 Particulates
Lower explosive limit
Nitrous Oxide
Sulfur Dioxide
Toluene
VOCs

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

Grabs @ 5 locations
3/5 – 3/12
VOCs & PAHs
- 75 samples taken, no detections for crude above health guidelines
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
- 143 samples from 35 borings screened
39 samples to lab

PNAs n(0'-3', 4'-8')
BTEX
TPH (DRO, GRO, ERO)
IDNR & US FWS did not identify endangered species at derailment site
River Level Monitoring
(unseasonably stable/low)

MISSISSIPPI AND GALENA RIVER LEVELS
AT DUBUQUE, BELLEVUE, AND BUNCOMBE as of 3/18/2015 18:11.00
BNSF GALENA RESPONSE

Location

Galena River at Buncombe, WI

Mississippi River at Dubuque, IL

Mississippi River at Bellevue, IA

Date (CDT) [March 2015]

Stage, feet above sea level

Data Type
observed
forecasted

Data Obtained from NOAA at 3/18/2015 18:11:00
Remediation Activities

- Sheet pile impacted area - complete
- Excavate impacted soils - complete
  - Republic Upper Rock Island LF, E. Moline, IL
- Flush ballast / ramp & recover oil - ongoing
- Water Treatment - ongoing
- Remove crude - ongoing
- Backfill & restoration – planning
  - US ACE, property owner input
- Monitoring - planning
Sheet Pile Containment
The numbers (so far)...

<table>
<thead>
<tr>
<th>Product</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil</td>
<td>230,242 gal</td>
</tr>
<tr>
<td>Oil/Water Mixture</td>
<td>35,132 gal</td>
</tr>
<tr>
<td>Contact Water (treated)</td>
<td>216,800 gal (+)</td>
</tr>
<tr>
<td>Contaminated Soil</td>
<td>3,568 tons (+)</td>
</tr>
<tr>
<td>Oily &amp; General Debris</td>
<td>40 yds (+)</td>
</tr>
<tr>
<td>Tankers wrecked</td>
<td>12</td>
</tr>
</tbody>
</table>
Next Steps

- Response
  - After Action Reports/Reviews
    - USEPA & IEPA participated in meeting on 3/27
  - Update Emergency Operation Plans
    - Lessons learned
    - Building Capability
  - Cost Recovery
    - Galena requested $227,300 from BNSF
    - USEPA / USCG will develop request ($250k OSLTF)
- Transition plan/schedule developed w/ IEPA (3/19)
- USEPA memo to IEPA SRP Unit Leader (3/20)
- UC dissolution memo (3/24)
- NPDES Permit
  - Water Treatment Unit - USEPA FOSC email exercising NCP, CWA Section 311(c) & NPDES Section 122.3(d) authority to exempt NPDES permit (3/24)
  - Construction Site – General permit issued by IEPA (3/27)
- IEPA SRP
  - Rockford Regional Office field oversight - Greg Kazmerski
  - Springfield office project manager - Jeff Guy
- IEPA perspective?
Issues of Interest

- JIC established, however....
  - No joint appearances w/ RP
  - Press releases / updates issued separately by City, State, USEPA, RP
- EPA POLREP utilized ‘imminent & substantial endangerment’ language confused press
  - Clarified in next press cycle
- Property ownership (impacted area)
- 24 work plans developed, approved by UC
- Putting the fire out...
Questions?

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

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