Canadian Pacific Derailment, Brownsville, MN
Details

• 2230hrs 1/26/2016
  • 15 cars derailed along West (MN) side
    • Upper Mississippi Fish & Wildlife Refuge
  • 6 tankers w/ vegetable oil
    • 2 leaked via sheared vent valves
    • Unknown amount into river
  • 3 hoppers w/ Sodium Chlorate, solid released to ground
  • Grain & Oats
USCG first on-scene Federal Officials

- Coordination – Briefing, recon.
- handoff/support
- Issuing FPN
- Requesting PRFA

CP Contractors
Assessing Release
Habitat Impact?

- Endangered Higgins Eye Pearly Mussel
  - USFWS concern on impact to bed
  - Dead mussels found stuck to removed tanker
- Open water downstream w/ waterfowl
  - Oil film would endanger wildlife
- Significant release of NaClO$_3$ = saline stress to aquatic life
Containment & Recovery

Plywood Dams:
1) Right below 3 north tankers
2) Downstream of 3 south tankers

Pompoms, pads & oil rags absorbent
Off-loading Ops
Safety issue = tankers floating
Ice Ops

Augering, monitoring, sampling, containment

EPA use of START contractor for field work, documentation, and water quality monitoring
Visible Sheen
Sampling

- 15 locations
  - Up/downstream
  - Near tankers
  - Open water @ L&D #8
- Screening for:
  - Visible sheen
  - Conductivity/pH/DO
- Analysis for:
  - Oil & grease (EPA 1664)
  - Chlorides (SW 9056)
Drones, now in common use on Incidents, permission needed over a Wildlife Refuge. Commercial drones must be flown by licensed pilot.
Sodium Chlorate

• Strong oxidizer

• Significant H&S issues during trans-loading
  • Specialized contractor/equipment separate HASP w/ training
  • Air monitoring for respirable dust
    • Avg. reading = 0.245 mg/m$^3$
    • Peak = 3.7mg/m$^3$
    • Ceiling for upgrade to Level C = 5 mg/m$^3$

• Tents to keep product from getting wet & decon.
• Hopper cars could not be moved to safer location due to aluminum construction
Command Structure

- UC transition on Day 3
- CP/Sheriff-EM/MPCA/FWS/EPA

Incident Objectives:
1) Safe offloading & recovery of oil
2) Containment safeguards
3) Ensure no secondary releases
4) Product recovery from river
5) Ice-operations safety
6) Safe transfer of NaClO₃
UC - Working with RR representatives

• Received Compressed Waybill (Dangerous Commodities short-list)
• Received Outbound Wheel Report (train list)
• Rapidly put together a “written” contingency plan
  • River diversion and collection points
  • Two vac-trucks with operators standing by
  • Three frac tanks, staged nearby or on site,
  • Chlorate recovery team and equip., drone, etc.
• Responder safety, Ice Operations, Water Monitoring, Air Boats, Scheduled Briefings, etc.
Pending Blizzard tomorrow morning!
Dead on track, 100% chance.
Suspend offloading operations?

Pulling cars from River
OIL coming out the bottom?
Or water leaking from
Tank car insulation?

Stopping the leak, rotating the car, put damage on top side.
Metrics

- ~ 165,475 gallons of vegetable oil transferred
  - No secondary releases
- ~ 657 gal (est) released to river
- ~ 96k lbs NaClO₃ off-loaded from each car, 3 cars
- Grain recovered w/ vac truck