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 NaClO₃ = 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





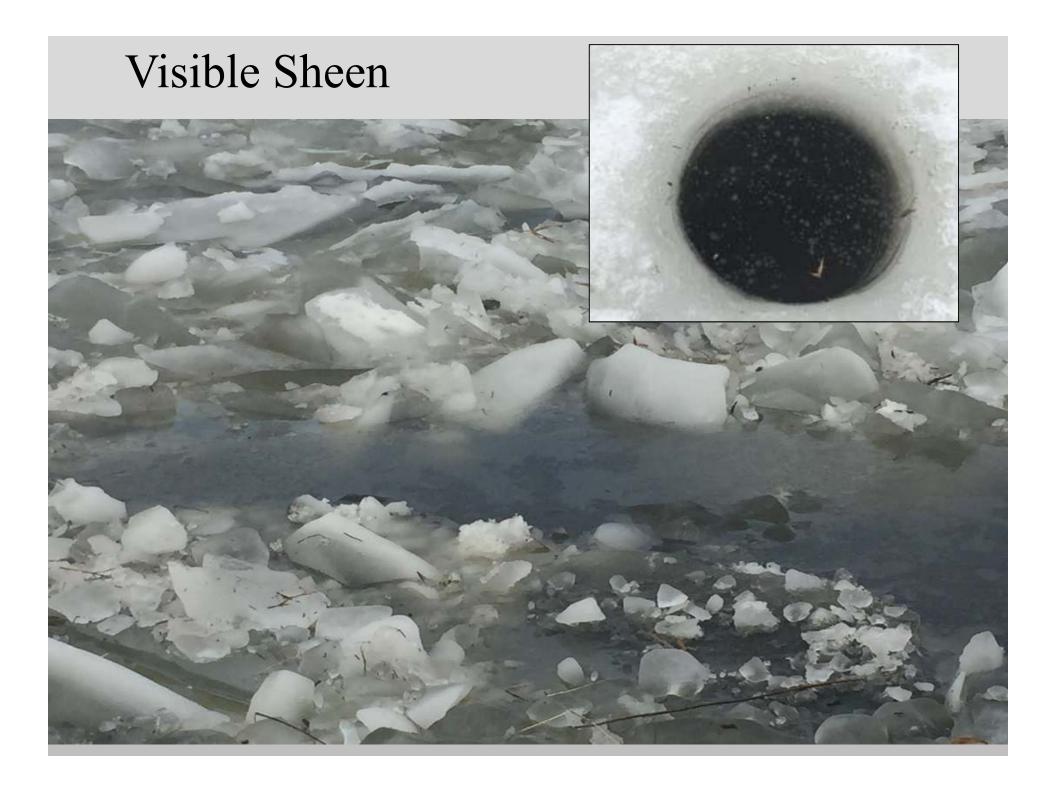
Ice Ops





Augering, monitoring, sampling, containment

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



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/m³
 - 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

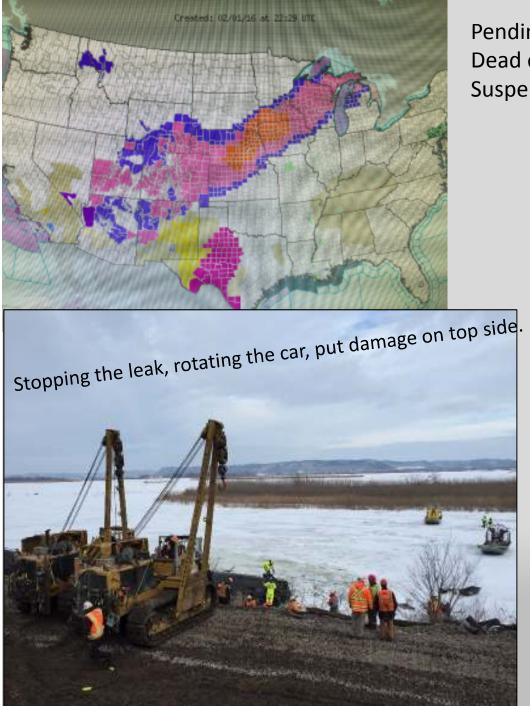
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UC - Working with RR representatives

 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 ?



Metrics

- ~ 165,475 gallons of vegetable oil Transferred
 - No secondary releases
- ~ 657 gal (est) released to river
- ~ 96k lbs $NaClO_3$ off-loaded from each car, 3 cars
- Grain recovered w/ vac truck