



Railroad Emergency Response

What OSCs Need To Know



United States
Environmental Protection
Agency

15th Annual OSC Readiness Training Program

◆ www.trainex.org/osc2012 ◆



Instructors

Cris D'Onofrio-USEPA, OSC

Patrick Brady-BNSF, Asst. Director HazMat Ops

Danny Simpson-CN, Asst. VP Safety and ER

Glenn Millner, PhD- CTEH, Partner and Principal

Paul Nony, PhD-CTEH, Senior Toxicologist

Railroad Emergency Response

What OSCs Need to Know



Welcome !

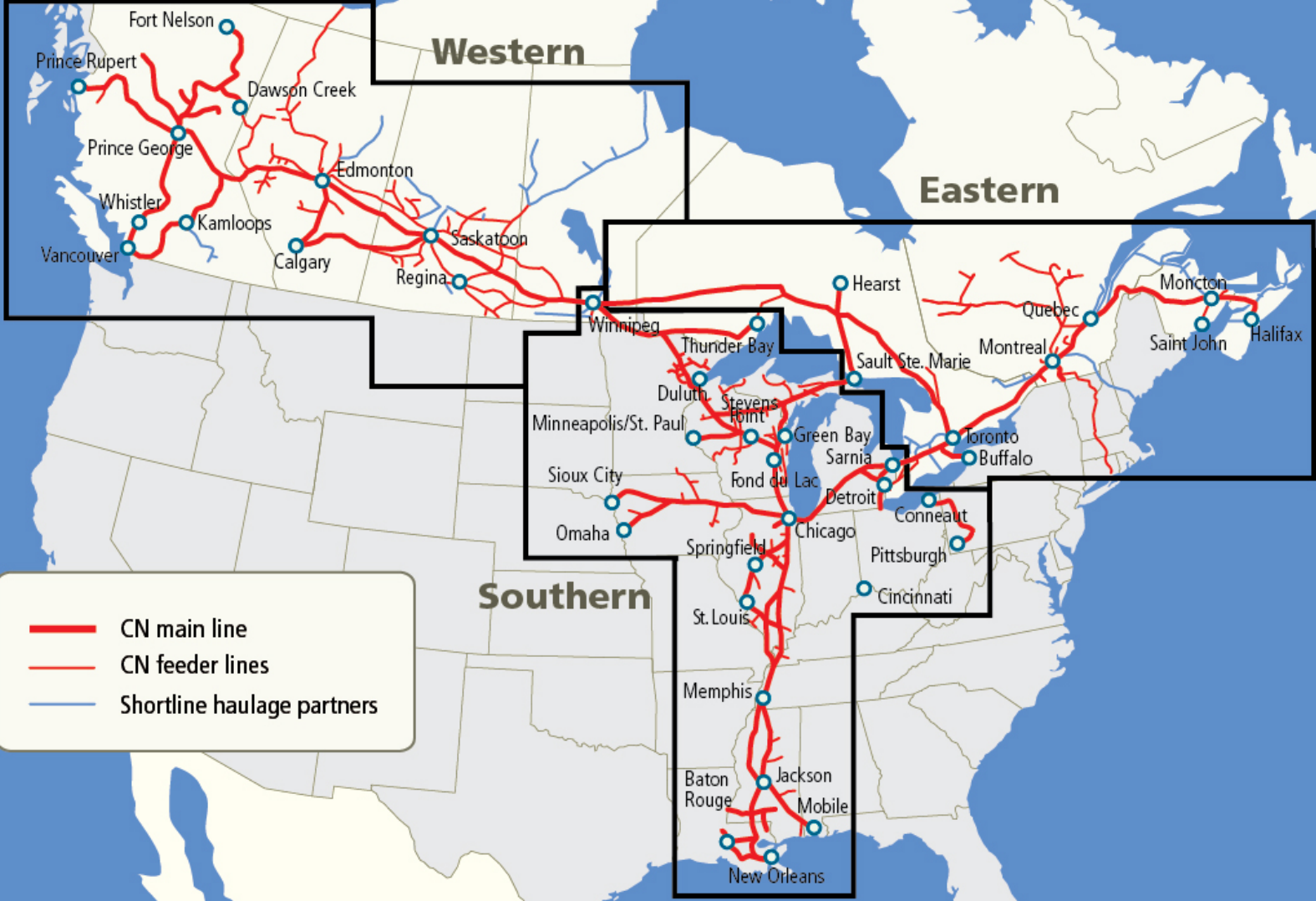
- Your host & Instructor (s)
- Safety briefing
- Course Materials
- Student manuals
- Student Introductions

Course Agenda

- **Railroad Awareness and Emergency Response**
 - RR Organization
 - System Protection
 - Emergency Response
- **Railroad Incident Site Assessment**
 - Assessment
 - Tactical Priority
- **Spy Hill**
 - An Overview
- **OSHA 1910.120 and NFPA 472**
 - History and Evolution

Site Assessment





— CN main line
— CN feeder lines
— Shortline haulage partners



BNSF Railway Company
Operating Division Alignment

System Maintenance and Planning printed April 12, 2010
Produced By Engineering Systems GIS



Transportation Organization

- Responsibility

- Region
- Division
- Zone
- Terminal / Subdivision

- Leadership Position

- Sr. Vice President
- General Manager
- Superintendent
- Trainmaster

Chain of Command

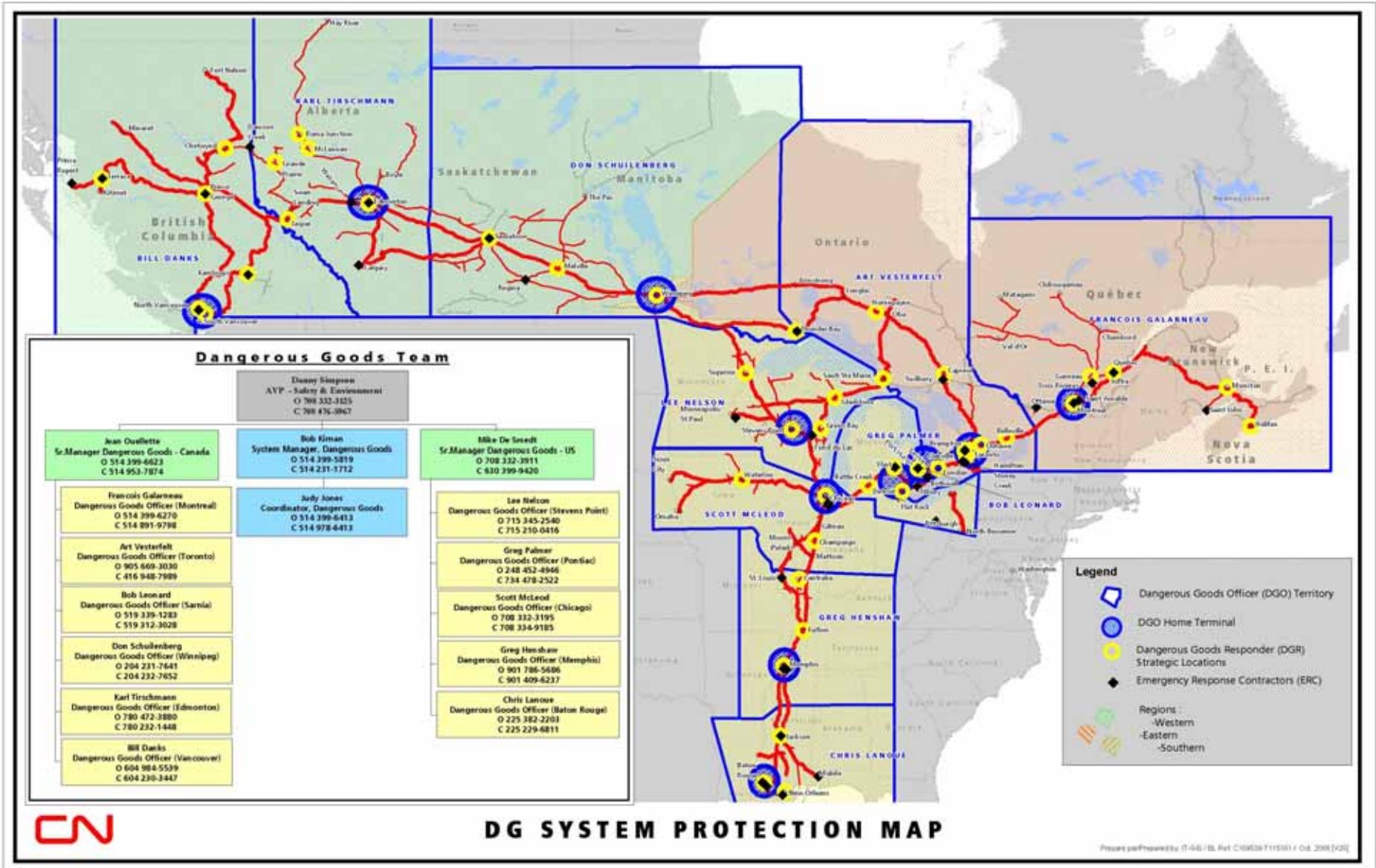
- Fire Service

- Fire Chief
- Assist. / Bat. Chief
- Captain
- Lieutenant

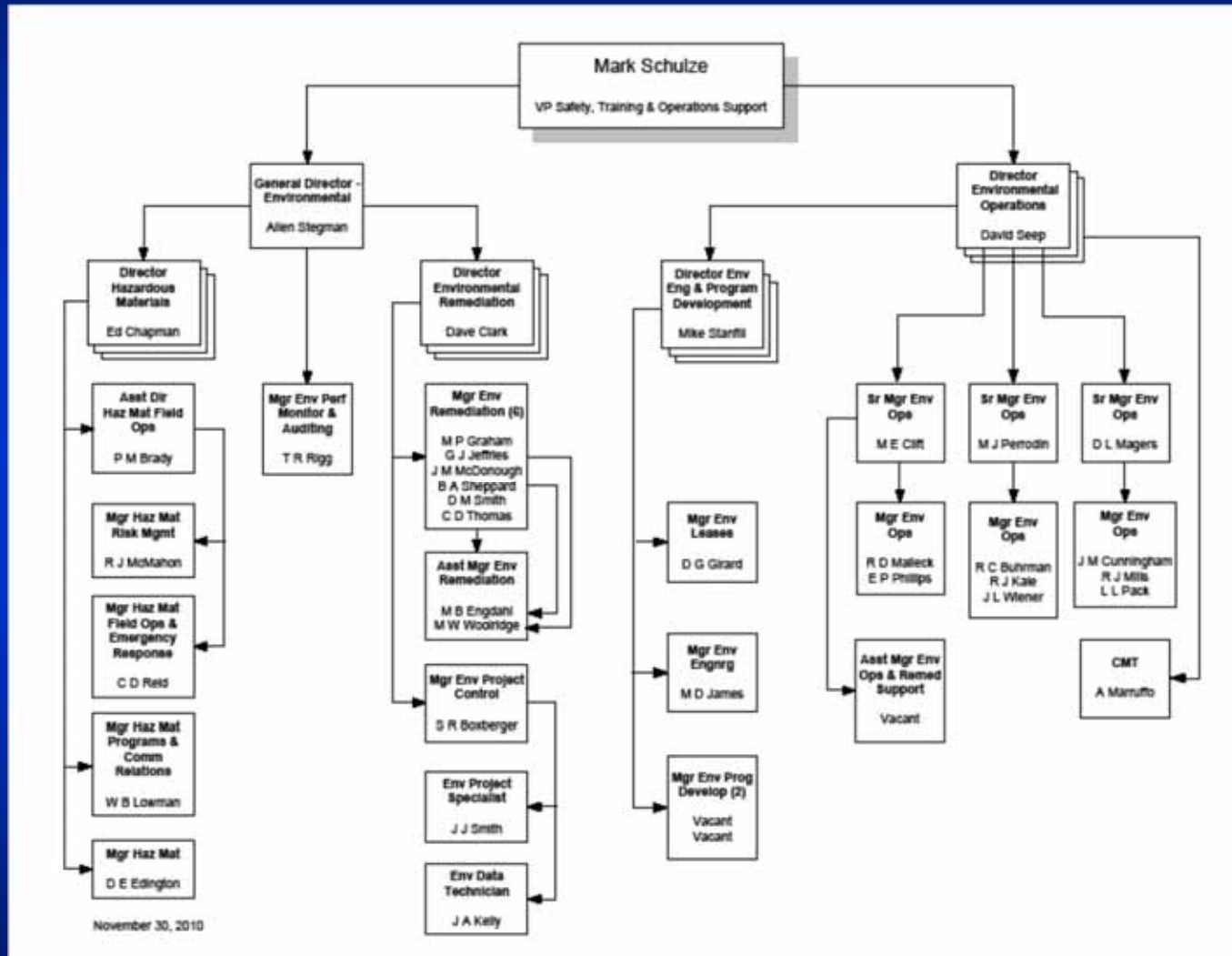
- Railroad

- Vice President
- General Manager
- Superintendent
- Trainmaster

System Protection



BNSF Hazmat and Environment



BNSF Hazmat and Environment

Environmental Remediation Team Map

Director: Dave Clark 785-435-2210



- | | |
|--------------------------------------|---|
| 1. Bruce Sheppard
Seattle, WA | Manager Environmental Remediation
206-625-6035 (w)
206-790-0696 (c) |
| Mark Engdahl
Seattle, WA | Assistant Manager Environmental Remediation
206-625-6376 (w)
206-465-5976 (c) |
| 2. Dave Smith
Helena, MT | Manager Environmental Remediation
406-447-2307 (w)
303-809-8050 (c) |
| 3. Greg Jeffries
Minneapolis, MN | Manager Environmental Remediation
763-782-3490 (w)
612-868-7995 (c) |
| Mike Woolridge
Minneapolis, MN | Assistant Manager Environmental Remediation
763-782-3483 (w)
612-845-2029 (c) |
| 4. Matt Graham
San Bernardino, CA | Manager Environmental Remediation
909-386-4081 (w)
951-317-2741 (c) |
| 5. Judy McDonough
Kansas City, KS | Manager Environmental Remediation
913-551-3989 (w)
612-802-1734 (c) |
| 6. Charles Thomas
Fort Worth, TX | Manager Environmental Remediation
817-740-7341 (w)
817-233-2076 (c) |

June 24, 2010

Environmental Operations Team Map

Senior Manager Environmental Operations

Mike Perrodin – Northern Area
Mike Clift – SouthWest Area
Dillon Magers – Eastern Area



- | | |
|---|--|
| 1. Jennifer Wiener, Mgr Env Operations
Seattle, WA
206-625-6034 (w)
206-979-9652 (bb) | 7. Mike Clift, Senior Mgr Env Operations
Fort Worth, TX
817-740-7356 (w)
817-733-4326 (bb) |
| 2. Mike Perrodin, Senior Mgr Env Operations
Havre, MT
406-265-0483 (w)
406-265-0881 (bb) | Vacant, Asst Mgr Env/Ops Remed Support
Fort Worth, TX
817-740- |
| 3. Bob Kale, Mgr Env Operations
Mandan, ND
701-667-2201 (w)
612-817-3964 (bb) | 8. Ryan Mills, Mgr Env Operations
Topeka, KS
785-435-2257 (w)
785-250-4821 (bb) |
| 4. Ron Buhrman, Mgr Env Operations
Lincoln, NE
402-458-7633 (w)
402-432-0156 (bb) | 9. Lorraine Pack, Mgr Env Operations
Ft Worth, TX
817-740-2646 (w)
817-832-6163 (bb) |
| 5. Edward Phillips, Mgr Env Operations
San Bernardino, CA
909-386-4082 (w)
909-266-3518 (bb) | 10. Jim Cunningham, Mgr Env Operations
Kansas City, KS
913-551-3990 (w)
612-817-1587 (bb) |
| 6. Ron Malleck Mgr Env Operations
Denver, CO
303-480-7442 (w)
303-885-2315 (bb) | 11. Dillon Magers, Senior Mgr Env Operations
Springfield, MO
417-829-4979 (w)
417-861-5396 (bb) |

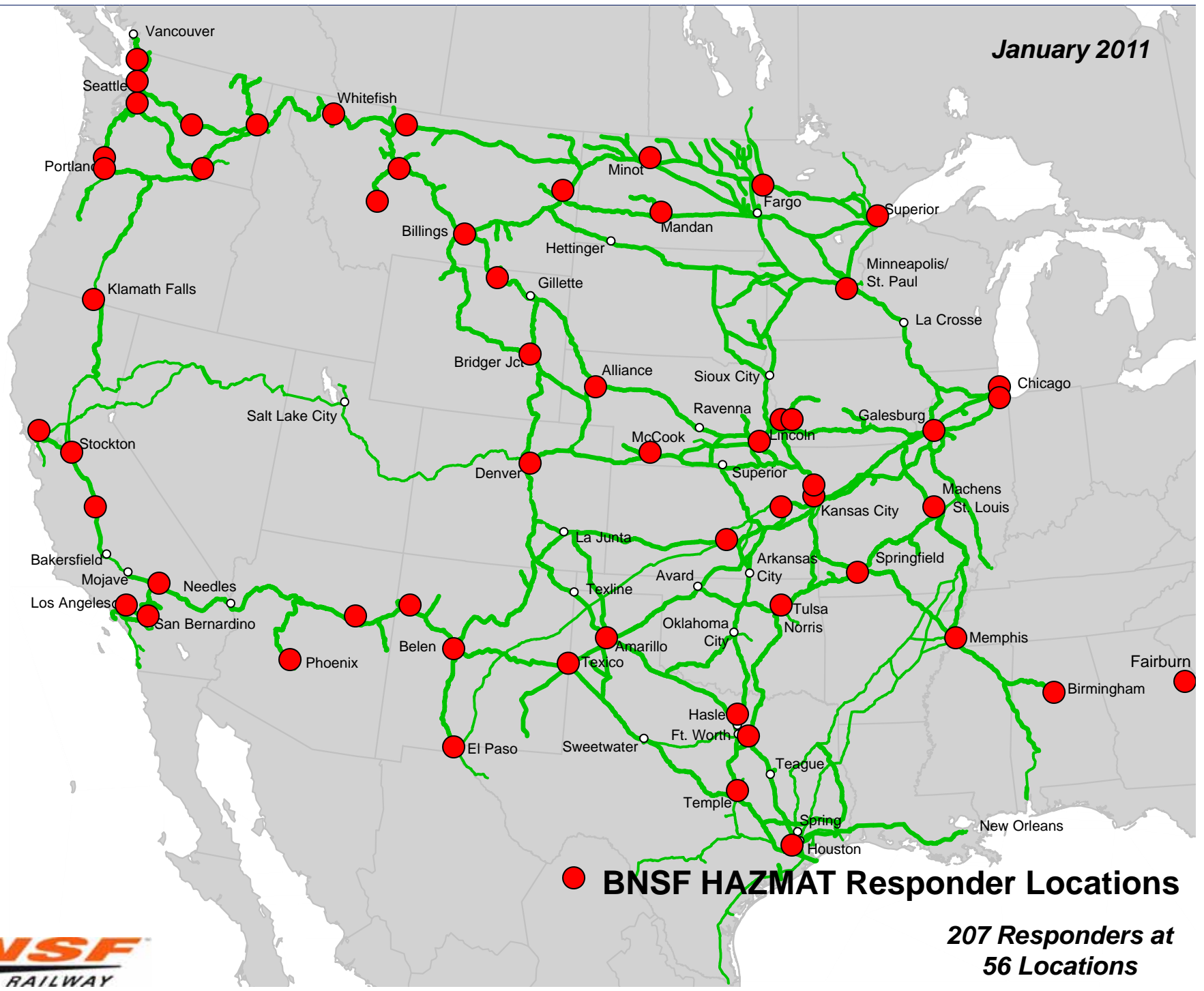
November 30, 2010

bb - Blackberry

April 2009



January 2011



Incident Notification Process

Legend

- Required Notification (Solid red arrow)
- As Conditions Warrant (Dashed red arrow)
- Required for Dangerous Goods Incidents (Icon: ☒)

Incident Discovery (First Witness)



Transportation Supervisor

Rail Traffic Center

Network Operations Centre (NOC - Edmonton)

CN Police

- eBusiness and Transaction Centre
- Transport Canada (CANUTEC)/TSB
- HRSDC
- Canadian Nuclear Safety Commission
- RAC/AAR
- Canadian Forces (DND)

- Senior Region Officers
- ☒ DGO (Dangerous Goods Officer)
- ☒ DGR (Dangerous Goods Responder)
- ☒ Shipper ER 24 hr number on shipping document
- Risk Management / Risk Mitigation
- National Response Center (NRC) (U.S.)
- Public Affairs
- People Department (HR)
- CN Legal

- Municipal Responders (Police, Fire, Ambulance, etc.)
- Environmental Officer
- Environment Canada
- Provincial Ministry of the Environment
- State & Local Environmental Protection Agencies
- State and Local Emergency Management Agencies
- U.S. Fish and Wildlife Service
- Department of Defence
- Department of Energy

Road

Yard

Required Notification

As Conditions Warrant

Required for Dangerous Goods Incidents



Railroad
Mile Post
Number

DOT Crossing
Number

Emergency
Contact Number

Call the railroad and report your
location and situation.

BNSF RAILWAY
IN EMERGENCY CALL
1-800-832-5452
4TH ST
M.P. 277.43
DOT 059544P

Notification Visor Card



PRECAUTIONS TO TAKE AT THE SITE OF A DERAILMENT & CN EMERGENCY RESPONSE PROCESS

DO NOT APPROACH THE TRAIN UNLESS YOU ARE SURE IT IS SAFE TO DO SO.

Tank cars, loaded or residue, present the most obvious threat during an incident. However, dangerous goods are also transported in other rail cars, trailers, and containers.

If you are first at the scene, make every effort to keep the public and any potential source of ignition away from the cars involved in the incident.

Determine the contents involved by checking the documentation held by the train conductor, member of the train crew or the on-scene-coordinator.

For shipments of dangerous goods, this documentation will include, at a minimum, a shipping document describing the commodity being transported and will include emergency telephone numbers. A copy of the Emergency Response Guidebook will also be available.

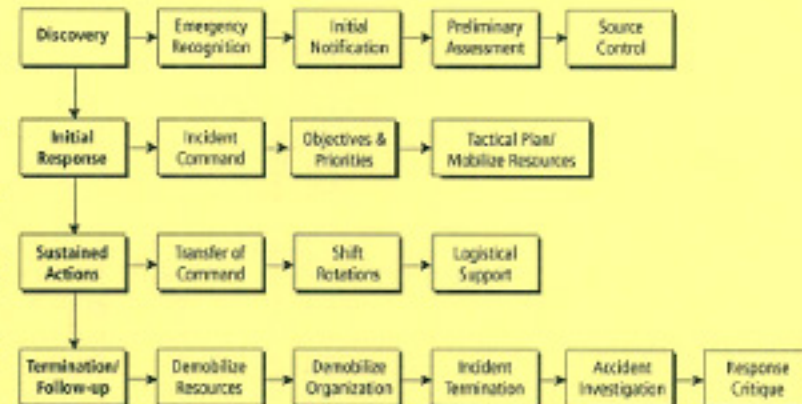
Documentation will normally be available from the train conductor at the scene. Should the train conductor and crew be disabled, documentation can be found on the lead locomotive.

Should the train's crew be unable to provide assistance, a copy of the train consist and Dangerous Goods shipping documents can be generated by calling the 24 hour emergency telephone number.

CN 24 HOUR EMERGENCY TELEPHONE NUMBER:

800-465-9239

[CN - 2005]



Emergency Response

- Network Operations

- Mechanical Dept.
- Engineering Dept.
- Transportation Dept.

- E.R. Support Team

- Safety & Regulatory Affairs
- Police
- Dangerous Goods Group
- Environmental Group
- Risk Mitigation Group
- Public Affairs Group

- External Support

- Industry Response Teams
- ER Contractors
- Municipal Response Teams



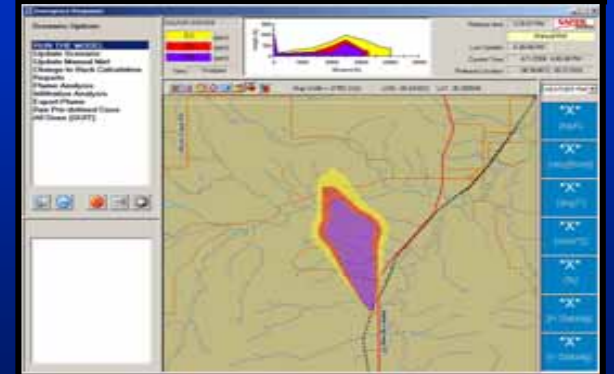
April 2009



Contracted Response - Expectations



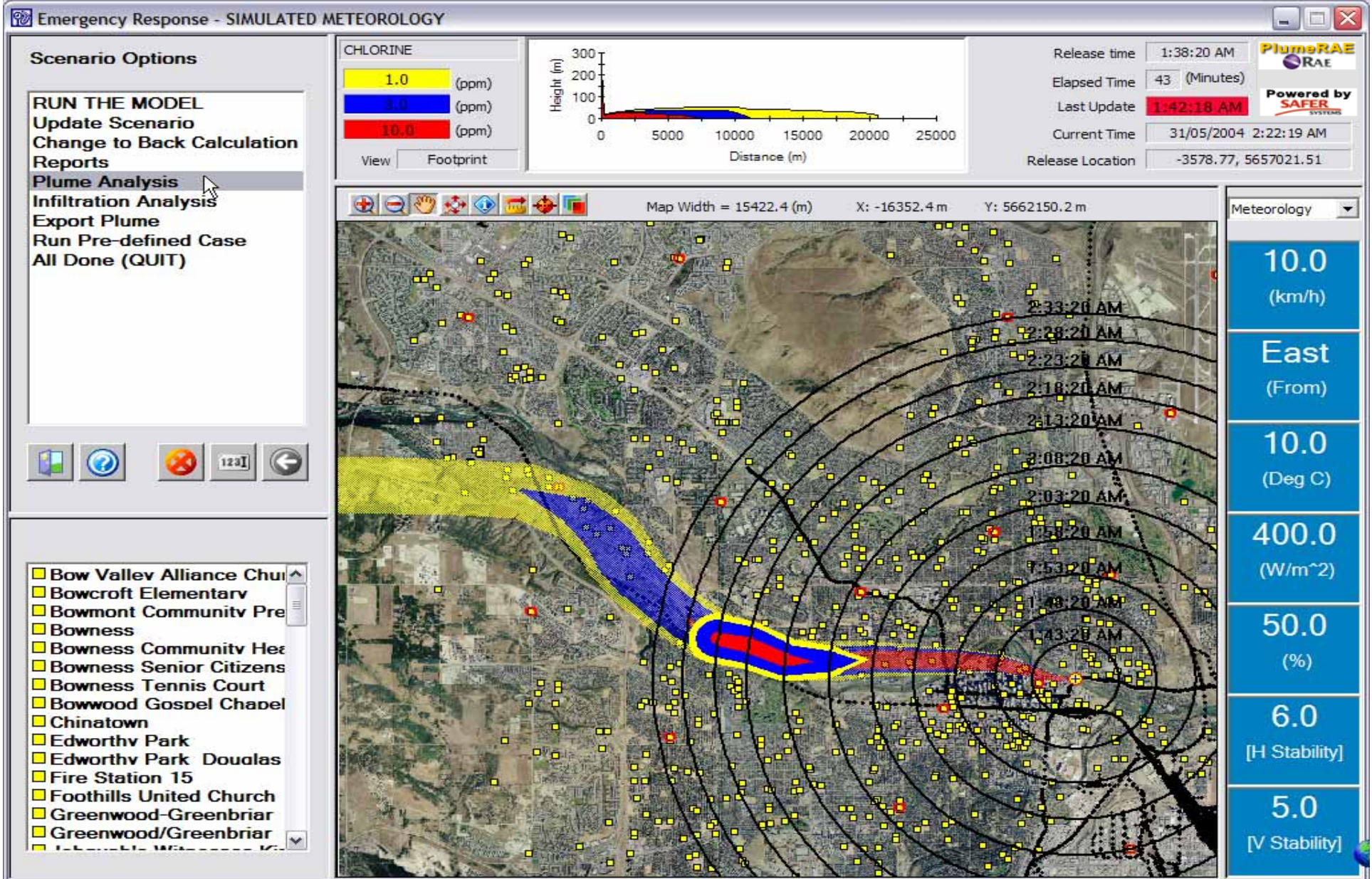
- Experience
- Locations
- Limitations
- Ability
- Duties
- Equipment
- Regulatory Compliance
 - Training
 - Respiratory
 - Med. Surveillance
- Contract Compliance
 - Audit
 - Drills
 - Experience



CTEH

- Centers for Toxicology and Environmental Health
- www.cteh.com
- Advanced Air Monitoring
- Plume Modeling
- Continuous air monitoring and data logging
- Assist in determining necessary evacuation distances to protect responders and the public
- Can help determine PPE requirements

Plume Dispersion Modelling



Emergency Response Resources



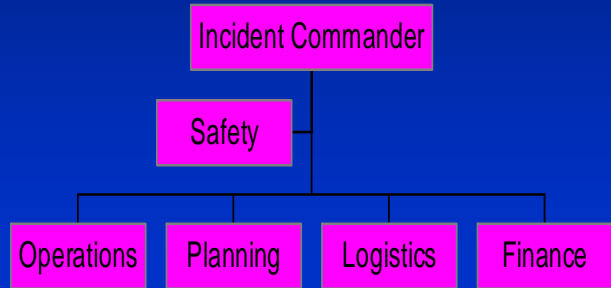
- Municipal
- State/Provincial
- Federal
- Railroad
- Shipper
- Contractor

ICS Integration



Who's In Charge?

Jurisdictional Authority



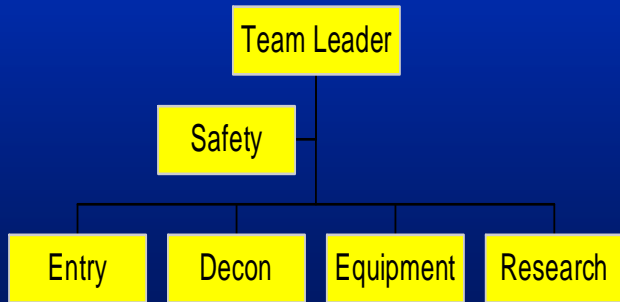
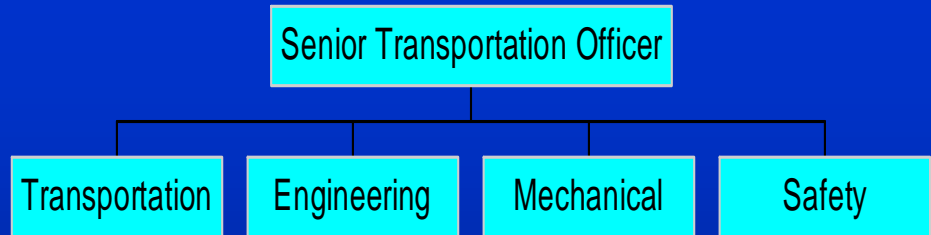
FBI

TSA

Who's In Charge?

EPA

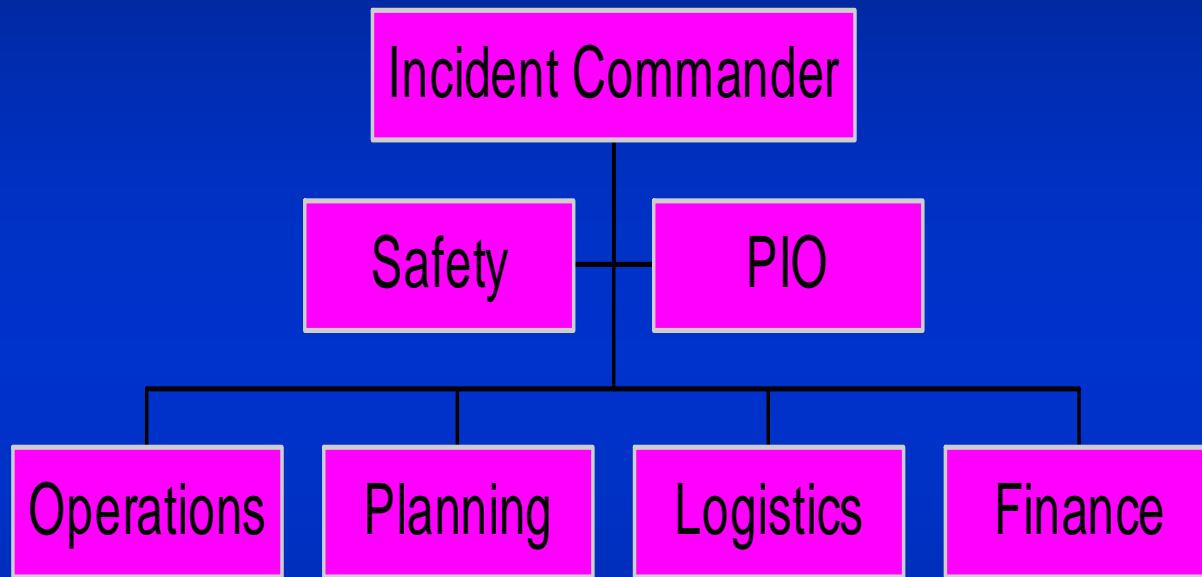
FRA



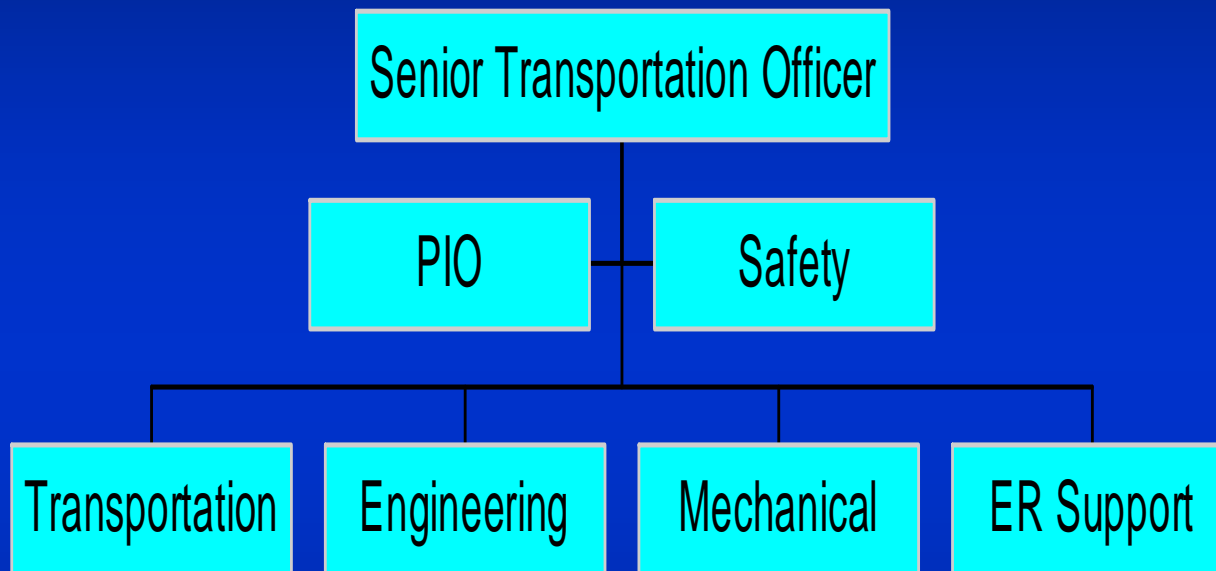
Coroner

NTSB

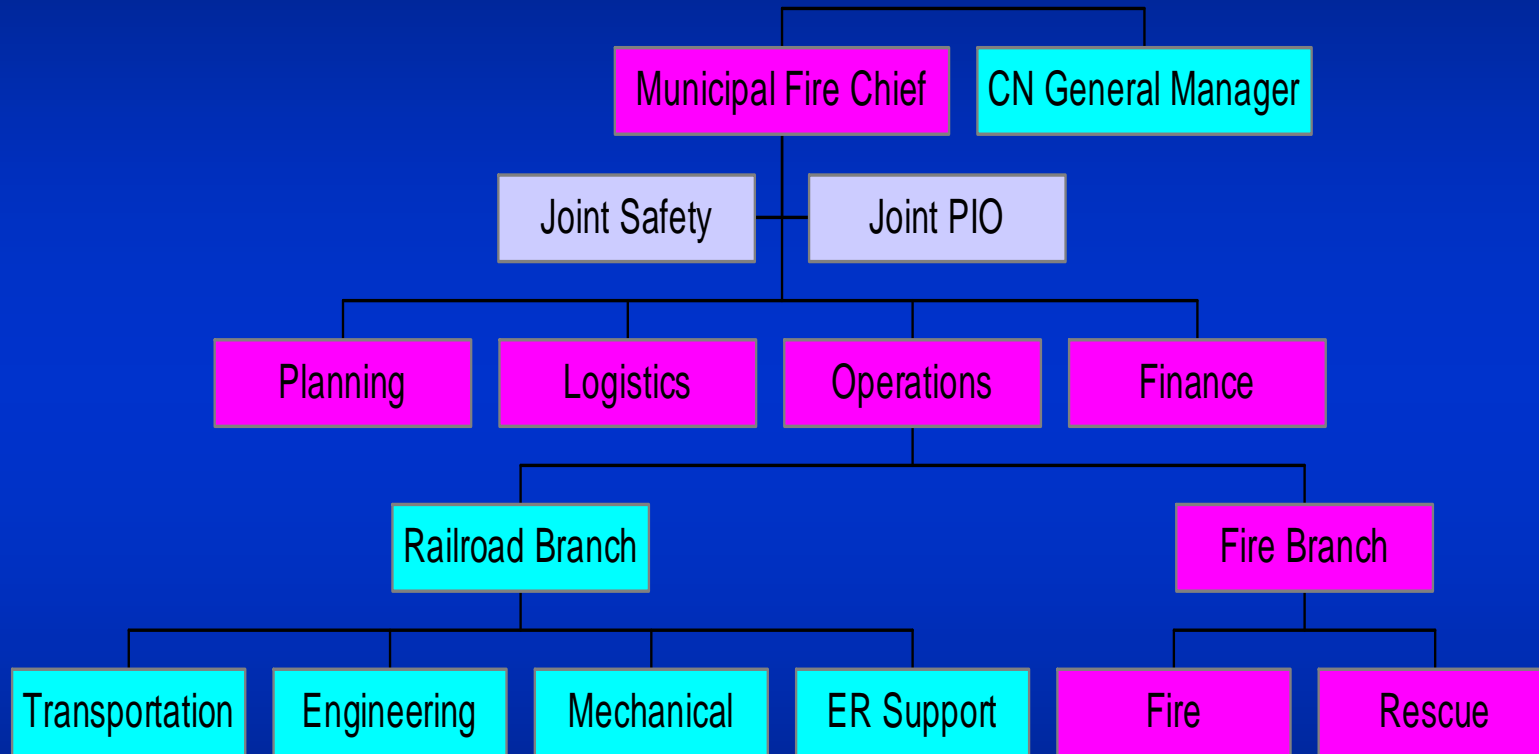
NIMS ICS Model



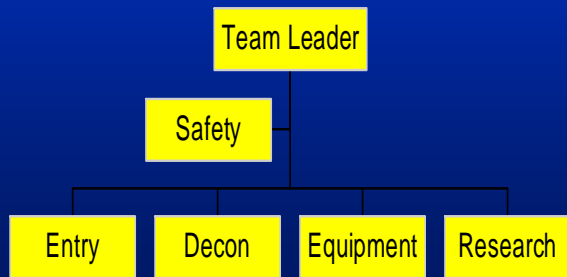
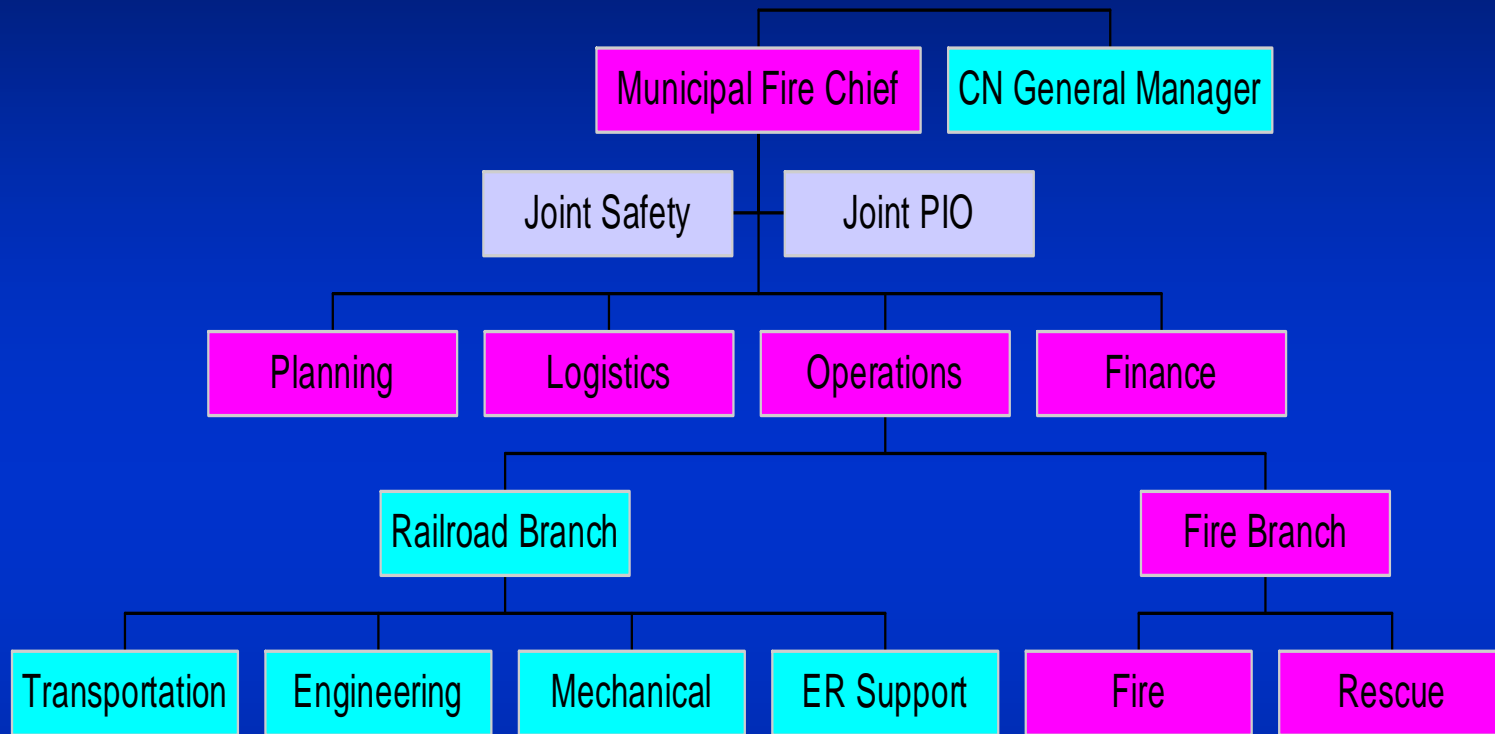
Railroad ICS Model



Unified Command



Unified Command



NTSB

EPA

FRA

FBI



Incident Methodology

- Activate ERP and Logbook
- Establish a perimeter
- Establish Incident Command System
- Begin site assessment
- Establish control zones
- Apply tactics
- Terminate the incident

Emergency Response Process

