



UNION PACIFIC RAILROAD HAZMAT GROUP: WHO WE ARE

Joshua Carrillo – Manager of Hazardous Materials



SAFETY BRIEFING

Emergency Situation, who will call 911?

First Aid Kit and AED Location?

Who is First Aid Trained?

Exit(s)?

Muster Point?

Washroom Locations?

Break Location(s)





Introduction: Objectives

Provide knowledge and skills to help you respond to railroad emergencies:

- Union Pacific system
- Pre-planning
- Railroad equipment
 - Locomotives
 - Identifying pressure & non pressure tank cars
 - Contacting the railroad
- Safety issues
- Railroad resources
- Markings
- Rail shipping papers
- Emergency response process
- Recovery operations

Any questions before we get started?



Introduction: Union Pacific Railroad System



Introduction: Hazardous Materials 2020



- **1.5 Million Total HM Shipments**
 - 776,922 k Loads
 - + 28,886 RSSM
 - + 27,174 TIH
 - 658,443 k Residue
 - + 29,814 TIH
- **143 Releases on UP**
 - 128 NARs
 - 3 TIH NAR
 - 15 Accident Releases
- **99.9% Handled without Incident**





OUR MISSION



Prevention – Prevent releases of hazardous materials in transportation



Preparedness – Develop internal and external assets for response and recovery



Response – Emergency response to releases to protect health minimize impact and stabilize the incident



Recovery – Progress incident to normal operations and to the point where closure work can begin

Our Mission

PREVENTION



PREPAREDNESS



- **Inspections**

Tank car
Train
Crew audits

- **Training**

Employees
Customers

- **Continuous Improvement**

Industry committees
Equipment design improvements

- **Response Plans**

HMERP
Community-Right-to-Know (Tier II)
OPA-90

- **Drills/Exercises**

- **Commodity Flow Data**

- **Training**

Public Responders
Employees
Private/Industry



Preparedness: TRANSCAER – Purpose

- Promote safe transportation and handling of hazardous materials
- Educate and assist communities near major transportation routes about hazardous materials
- Aid community emergency response planning for hazardous material transportation incidents



Assisting communities to prepare for and respond to possible hazardous material transportation incidents



Preparedness: TRANSCAER – Offerings



- **PLANNING ASSISTANCE**

Local community assistance better understand and plan for hazmat transportation emergencies

- **TRAINING**

Classroom and hands-on training

- **DRILLS AND EXERCISES**

To improve the response and handling of hazmat emergencies

- **REFERENCE AND TRAINING MATERIALS**

Technical information about chemicals and transportation equipment for both training and actual emergency response

- **NETWORKING OPPORTUNITIES**

Best practices, new programs and resources, and networking with each other

- **RESOURCES**

Regional & State Coordinators work to implement the TRANSCAER mission and help connect local responders with the resources they need

Preparedness: Pre-plan

- Identify railroads operating in your area
- Obtain railroad emergency phone number(s)
 - UP RMCC 888-877-7267 (888-UPRR COP)
- Map railroad mileposts/crossings
- Identify “At-Risk” populations
 - Schools, nursing homes, hospitals, etc
- Understand what HM is moving through your community (Commodity Flow)



Request for Hazardous Commodity Flow Information.

Upon request, UPRR will provide bona fide emergency response agencies or planning groups with commodity flow information for the hazardous commodities transported through the community.

Preparedness: HMERP

Hazardous Materials Emergency Response Plan (HMERP)

UNION PACIFIC RAILROAD COMPANY

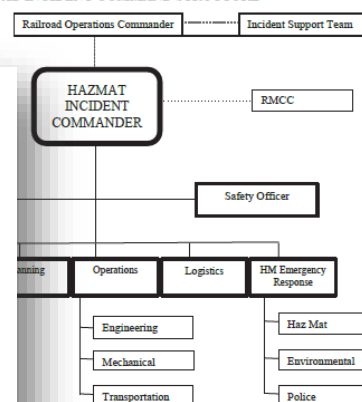
HAZARDOUS MATERIAL EMERGENCY RESPONSE PLAN

July 11, 2017

PB-20850

Union Pacific Hazardous Material Emergency Response Plan

RAILROAD INCIDENT COMMAND STRUCTURE



EMERGENCY RESPONSE PLAN
center 1-888-877-7267

Union Pacific Hazardous Material Emergency Response Plan

Attachment A HZ-89 Hazardous Materials Emergency Response Plan Training Guide HMERP Guide (HZ89)

Hazard Classes and Divisions

Class 1 - Explosives

- Division 1.1 Explosives, mass explosive
- Division 1.2 Explosives, bulk explosive
- Division 1.3 Explosives, low explosive
- Division 1.4 Explosives, very low explosive

Class 2 - Gases

- Division 2.1 Flammable gases
- Division 2.2 Non-flammable, non-toxic gases
- Division 2.3 Flammable, toxic gases

Class 3 - Flammable Liquids and Combustible Liquids

- Division 3.1 Flammable liquids
- Division 3.2 Combustible liquids

Class 4 - Flammable Solids, Spontaneously Combustible, and Dangerous When Wet

- Division 4.1 Flammable solids
- Division 4.2 Spontaneously Combustible
- Division 4.3 Dangerous when wet

Class 5 - Oxidizers and Organic Peroxides

- Division 5.1 Oxidizers
- Division 5.2 Organic peroxides

Class 6 - Poison (Toxic) and Poison Inhalation Hazard

- Division 6.1 Poison (Toxic)
- Division 6.2 Poison Inhalation Hazard

Class 7 - Radioactive

Class 8 - Corrosives

Class 9 - Miscellaneous

Recognizing Hazardous Materials

... (text continues) ...

Placards

... (text continues) ...

Markings

... (text continues) ...

Required Documentation

... (text continues) ...

Initial Observer and Other Employees in the affected area

... (text continues) ...

Protect yourself and Alert Others.

... (text continues) ...

Initiate the Notification Process

... (text continues) ...

Follow Instructions

... (text continues) ...

Provide Limited Assistance

... (text continues) ...

RMCC - 888-UPRRHOP (888-877-7267)

... (text continues) ...

IOUS MATERIAL EMERGENCY RESPONSE PLAN
Communication Center 1-888-877-7267

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- Company level plan
- Employee responsibilities
- Incident command system (NIMS) and responsibilities
- Emergency response personnel – roles, responsibilities & training
- Other actions



Preparedness: Crossings

DOT # for All Crossings: At Grade, Over/Underpasses



REPORT PROBLEM
OR EMERGENCY
1-800-848-8715
X-ING 796262F
UNION PACIFIC RAILROAD



Crossing Safety: What's the Hurry?

- **Always expect activity around you**
- **Never linger between tracks**
 - Stay at least 25 feet away from all railroad equipment
 - Do not lean on trains or locomotives
 - Do not climb under or between equipment
 - Stand clear of passing trains
- **Never approach a railroad incident without ensuring you are properly protected from movement from the train crew or local management**



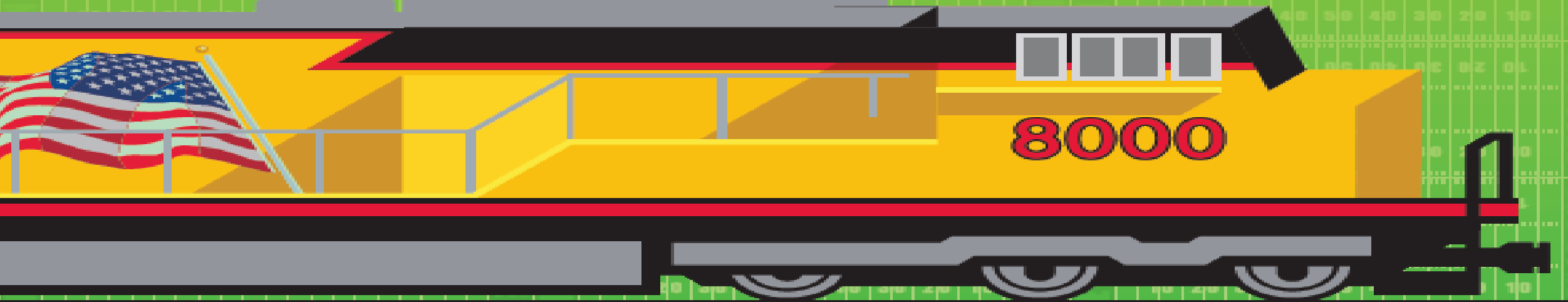
“Expect a train at any time in any direction”

A FREIGHT TRAIN

moving at 55 miles per hour can take

A MILE OR MORE TO STOP

once the emergency brakes are applied.



THAT'S 18 FOOTBALL FIELDS!

UP CARES Partnerships



- Crossing Accident Reduction Education and Safety Program (UP CARES)
- Law enforcement officers monitor motorist behavior from inside locomotives
- Nearly 9,000 events in UP communities

PREPAREDNESS: TOOLS

Crossing Locator provides users with **access to the highway-rail grade crossing database** and map features from a mobile device. The tool allows users to locate crossings by USDOT Crossing ID, address or geo-location; access inventory records submitted by states and railroads; and view accident history.





PREPAREDNESS: TOOLS

Access to Crossing Locator App

1. Download the app from the Google Play store or the Apple App Store.

Other Resources

1. DOT / FRA Crossing Inventory Website:
<http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/crossing/Xingqryloc.aspx>
2. DOT / FRA GIS Website:
<http://fragis.fra.dot.gov/GISFRASafety/>

Our Mission

RESPONSE



- **Safety**

Employees
Community

- **Coordination of Responder**

Public Responders (IC)
Regulatory Agencies
Specialized Contractors

- **Response Duties**

Analyze the problem
Plan the response
Implement plan
Evaluate and adjust

RECOVERY



- **Product / Container Fate**

Product Removal / Transfer
Container decontamination / Cleaning

- **Restoration**

- **Incident Termination**

Debriefing
Post Incident Analysis (PIA)
Critique
Reporting

- **Remediation**

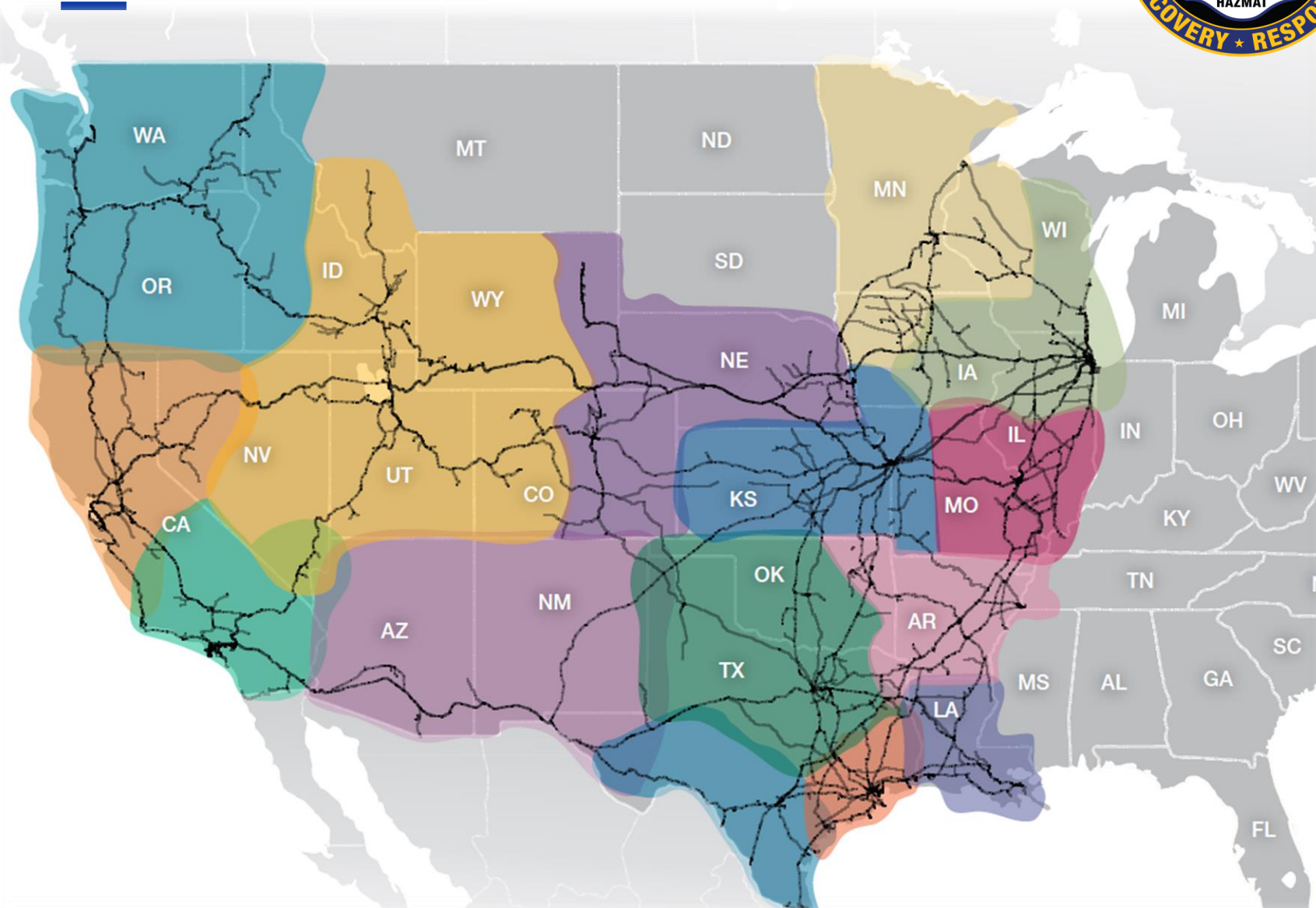


Response: Duties

- Provide site assessment assistance
- Assemble a tactical plan
 - Safety on site
 - Air monitoring
 - PPE
 - Damage assessment
 - Product transfers
 - Cleaning and purging of containers
- Provide hands on tactical intervention
- Manage contract assets



Response: HMM Contacts



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Introduction: Territory and Covering Manager



Territory Manager

JOSHUA CARRILLO



San Antonio, TX

MANAGER OF
HAZARDOUS MATERIALS

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Covering Manager

MICHAEL J. MOORE

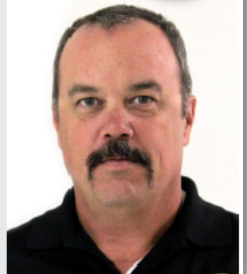


Fort Worth, TX

SENIOR MANAGER
HAZARDOUS MATERIALS

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Response: Departments

- Coordination is important
- Other departments may be first UPRR personnel on scene
- **Departments that may be present:**
 - Mechanical
 - Engineering
 - Damage Prevention
 - Law
 - Go Team



Response: Assets

- **Firefighting Trailers**

- Portland, OR
- Roseville, CA
- Salt Lake City, UT
- St. Louis, MO
- San Antonio , TX
- El Paso, TX
- Omaha, NE
- Chicago, IL
- Colton, CA
- Fort Worth, TX
- Little Rock, AR
- North Platte, NE

- **Firefighting support trailers**

- **Boom trailers and boats**



Response: Non-Accident Releases (NAR)



WHY?! HOW?!

- Car not properly secured
- Valve/fitting failure

Response: Accident Releases (AR)



WHY?! HOW?!

- Infrastructure, human error, mother nature, etc.

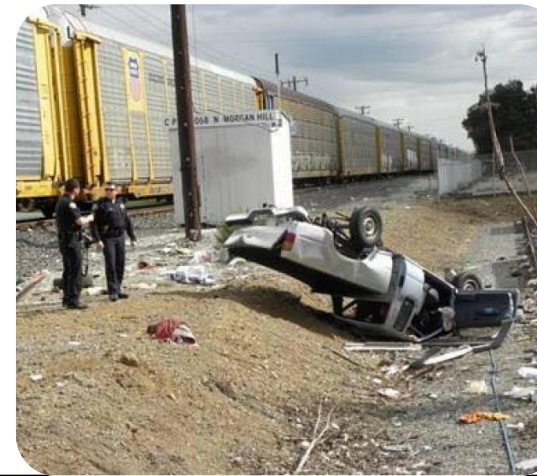
Response: “It all starts here!”

UPRR Response Management Communications Center (RMCC)

888-UPRR-COP (888-877-7267)

For Emergencies Dealing with:

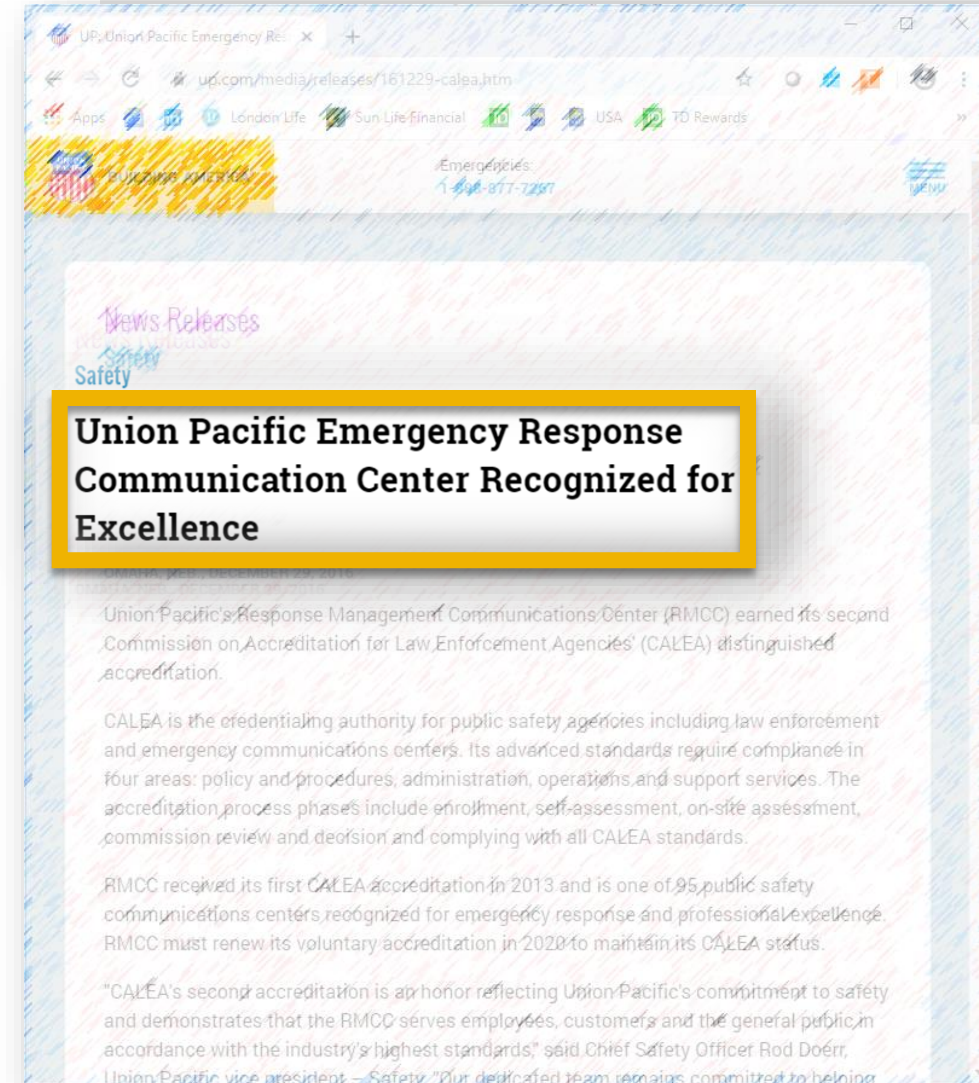
- Criminal activities
- Crossing accidents / accidents not at crossings
- Derailments
- Fires
- Hazardous material spills / environmental incidents
- Injured parties / fatalities
- Track obstructions



Response: RMCC

Response Management Communications Center (RMCC)

- **Receive** – Who, What, Where, When, Why, How
- **Notify** – 100's of internal and external customers
- **Document** – Detailed information from beginning to end of incident
- **Communication with Local Emergency Responders**
 - Initial notification to 911 within 2 minutes
 - Consistent communication throughout incident
- **Regulatory Compliance**
 - Over 70 State & Federal Agencies
 - National Response Center (NRC) notified 508 times in 2019!



Recovery: Overview

Product & Container Fate

- Product removal/transfer
- Container clean & purge

Incident termination

- Debriefing
- Post Incident Analysis (PIA)
- Critique
- Required reporting

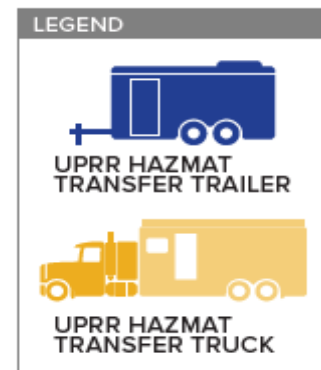
Site Remediation

Restoration





UNION PACIFIC RECOVERY ASSETS



Lessons Learned: Past incidents



Questions?

