

Oil Train Safety Symposium
Pacific Northwest Economic Region
Lakewood, WA
April 27, 2016





AGENDA

- Role of Iowa Homeland Security and Emergency Management and state and local Emergency Responders
- Role of Iowa Department of Transportation
- Iowa Crude Oil and Biofuels Rail Transportation Study



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State and Local Preparedness, Response and Recovery

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Iowa Homeland Security & Emergency Management Department

- HSEMD supports the development or enhancement of the response capabilities needed in the event of an emergency or disaster.
 - Planning
 - Training
 - Exercise
 - Developing Public Information Programs
 - Developing Warning Systems



Comprehensive Emergency Plan

All Hazards Planning

- Hazardous Materials (HM) is one type of hazard
- Railroad Hazardous Materials incident is a smaller subset
- Railroad Crude Oil or Biofuels HM incident is yet another smaller subset.

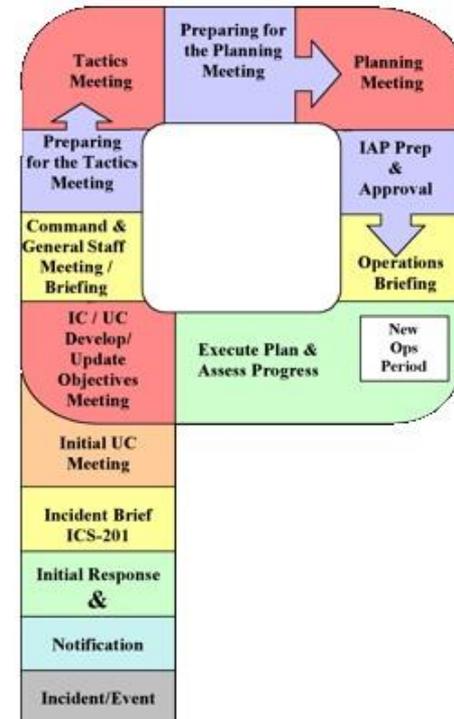
Emergency Support Functions

- ESF 1 – Transportation
- ESF 2 – Communications
- ESF 3 – Firefighting
- ESF 6 – Mass Care
- ESF 9 – Search and Rescue
- ESF 10 – Oil and Hazardous Materials
- ESF 13 – Public Safety and Security
- ESF 15 – External Affairs and SOP's



Different Types of Planning

- Pre Incident Planning (planning for what might happen)
 - Hazard Analysis and Risk Assessment (What might happen)
 - Who has authority, resources, personnel to respond?
 - How do we collaborate with others?
 - Develop SOP's and SOG's for likely hazards.
- Incident Action Planning (planning to support an actual ongoing incident)





How Iowa HSEMD Supports Training

Grants to locals

- Emergency Management Performance Grant
- Homeland Security Grant
- Pipeline & Hazardous Materials Safety Administration's Hazardous Materials Grant Program

Class delivery and out of state training opportunities supported

- FEMA Training
- SERTC - Security and Emergency Response Training Center
- HazMat IQ and other operations, technician trainings and refresher courses



Exercises...

Test your planning assumptions and training levels

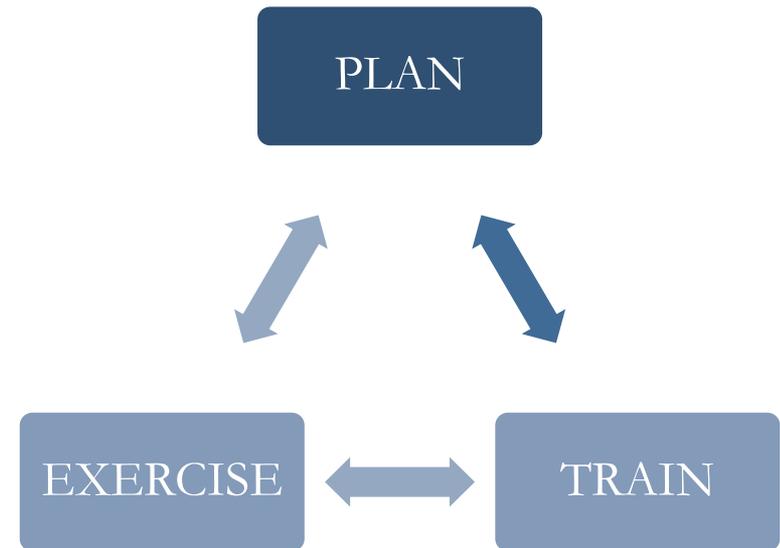
Thankfully real live incidents are rare

• Types of Exercises:

- Table Top
- Functional
- Full Scale

Take them seriously --- They can save lives in the real event!

Each part supports the other parts





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- Railroad Hazardous Materials Releases have been **rare** in Iowa.
- Most Hazardous Materials Incidents are **handled locally** without the need for State Resources.
- Approximately 95 % of the counties in Iowa are covered by a local hazardous materials team. 80 % of local firefighters in Iowa are **volunteer**.
- Local Emergency Management and Responders plan, train and exercise **together**.
- Incident Command Structure and National Incident Management Principles are the **standard for incident management**.





Local Emergency Management

- All disasters start and end locally...
 - Disaster response starts in the impacted community
 - Each county has a local emergency management coordinator who facilitates local government and volunteer response operations
 - In large disasters that exhaust local capabilities the state can provide additional resources





Local Emergency Management

Planning

- Hazard Analysis and Risk Assessment for the local jurisdiction
- Work through scenarios with likely Emergency Management Partners
- Develop SOPs and SOGs

Dwight D. Eisenhower

- “Plans are nothing; planning is everything”
- Preparedness planning is about talking over what might happen and evaluating how to meet the challenges of the possible



Comprehensive Emergency Plan

- Response Plan
 - Establishes functions that are needed during an emergency or disaster, identifies specific capabilities necessary to perform each function, assigns these activities to governmental agencies or other organizations, and addresses outside assistance channels.
- Mitigation Plan
 - Identify and implement strategies to eliminate hazards or, when this is not possible, minimize the effects that the hazard can have on people or property
- Recovery Plan
 - Identifies short-term and long-term priorities, programs and activities that could facilitate disaster recovery



Local Emergency Management

Training:

- January 2015 --- Railroad 101 class for local emergency managers and responders in Dubuque County
- Hazardous Materials Team --- Regular HazMat training

Helpful for 2 recent incidents:

- Ethanol derailment in rural Dubuque County
- Crude Oil Derailment in Galena Illinois – Offered mutual aid support



Dubuque CAER – Community Awareness and Emergency Response

Who:

- Emergency Response groups along the Mississippi River
- Railroads
- Local Companies

Goal:

- Collaborate to provide rapid resources for railroad incidents along the river
- Rapid response to reduce the extent of spills and lessen the scope of recovery actions



Get to know who you will work with!

- The meetings had taken place to start CAER prior to recent derailments
- Relationships were being built
- We knew each other at the derailments from their involvement in the CAER meetings



RESPONSE

- Perform actions to stabilize the situation so that there is no longer an immediate threat to:
 - Life,
 - Health
 - Safety
 - Property
 - Or the Environment





RESPONSE

- Response activities help to reduce casualties, damage, and expedite recovery. They include:
 - Warning
 - Evacuation
 - Rescue
 - Resource management
 - Operations
 - Incident specific emergency support functions





Emergency Operations Center

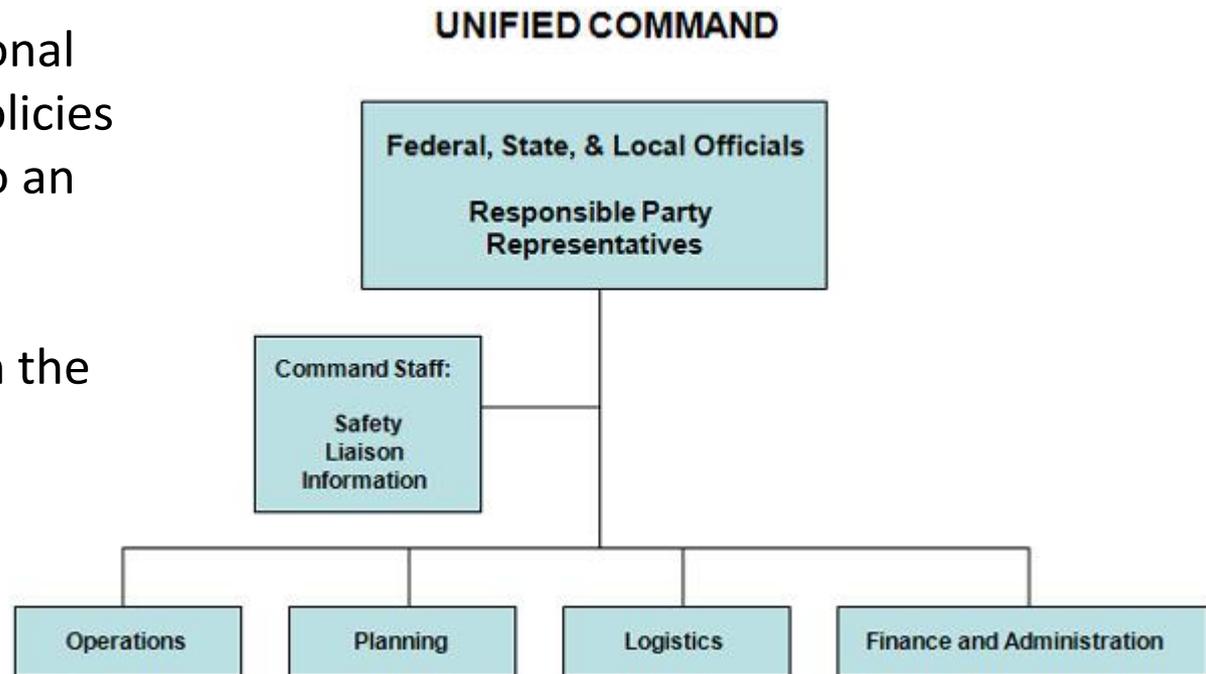
- A central location that enables governments to coordinate:
 - Policy decisions
 - Manage resources
 - And respond to disasters and emergencies beyond the scope of the incident commander
- Respond to cascading events or consequences that occur as a result of the incident
- Examples:
 - Protect potable water supplies
 - Reroute traffic
 - Close impacted schools or business
 - Arrange for temporary shelter





Incident Command System (ICS) – Unified Command

ICS provides an organizational structure and operating policies for on-scene responders to an incident, and can be established, modified, or expanded depending upon the changing conditions of the incident.





Incident Command Functions

- Assess incident Priorities
- Determine strategic goals and tactical objectives
- Identify staging area, as needed
- Develop and Implement incident action plan
- Develop appropriate incident management structure
- Assess resource needs



RECOVERY

- Short-term:
 - Seek to restore critical services to the community and provide for basic needs of the public
 - Return the rail line to service
 - Clean up spilled material
- Long-term:
 - Seek to restore the community to as much of a pre-disaster condition as possible
 - Environmental remediation – soil and groundwater



When a rare rail accident occurs.....

1. We want responders have the knowledge base to make good decisions in an emergency situation
2. Do not respond above your capability level
3. Know where to go or who to call for expert assistance for the rare event
4. Resources and support are available...from both the state and the railroads
5. Get to know people who can help prior to an emergency situation



Iowa Department of Transportation

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Oil Train Safety Symposium Iowa DOT Mission and Role



Iowa Department of Transportation

Our Mission:

Getting you there safely, efficiently, and conveniently.

Our Core Values:

Safety – put safety first in everything we do.

Respect – treat everyone with honor, dignity, and courtesy.

Integrity – earn and demonstrate trust through transparent and ethical actions.

Teamwork – work together through effective communication, collaboration, and accountability.

Leadership – create vision, inspire others, and set an innovative pace for our customers and the transportation industry.





Iowa Department of Transportation

The Office of Rail Transportation supports development of a safe and efficient rail transportation system while improving Iowa's quality of life.

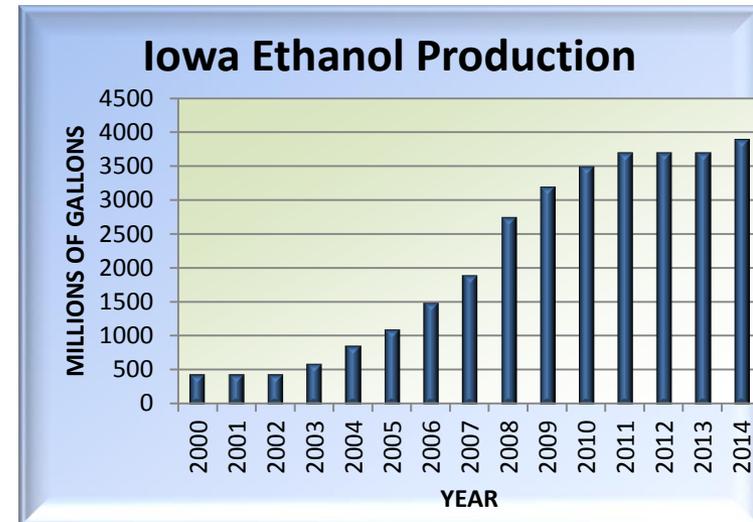
- Promote rail safety
- Facilitate partnerships with railroads, industry, highway users and public agencies
- Administer financial assistance programs:
 - Crossing Safety
 - Crossing Surfaces
 - Economic Development
 - Freight Rail
 - Passenger Rail
- Track inspection program



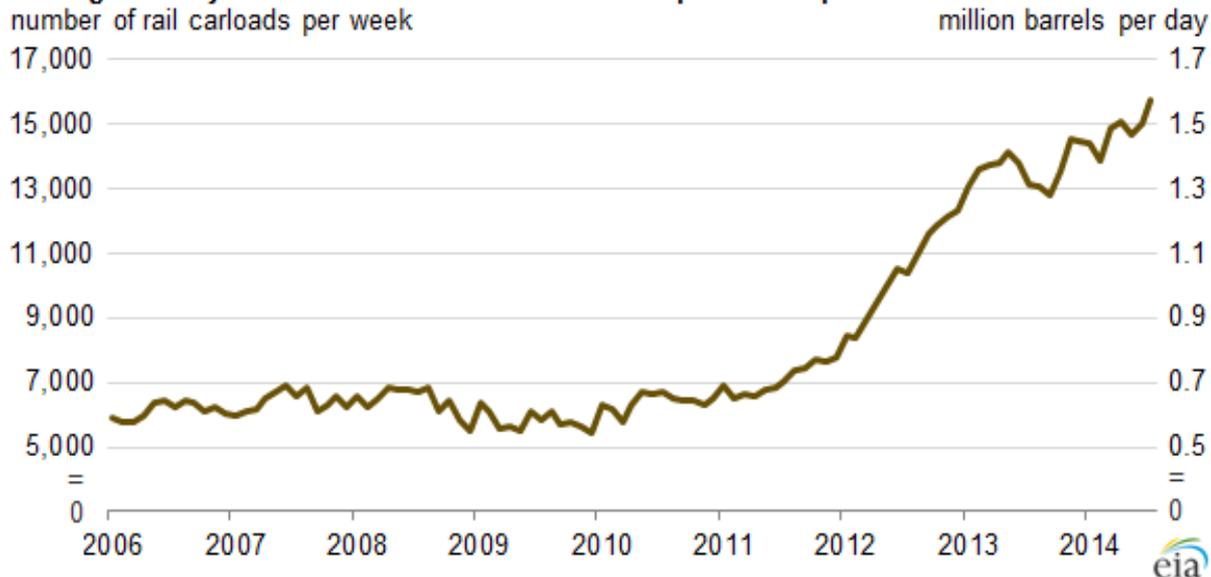


Crude Oil and Biofuels Challenges

- Unprecedented increases in crude oil and biofuel production
- Recent incidents involving crude oil on trains
- How prepared are we?
- What more can we be doing?



Average weekly U.S. rail carloads of crude oil and petroleum products





Iowa's approach to the challenge:

- Collaboration and partnership
- Bring stakeholders together for safety and efficiency; not to create new regulations or constrain economic development
- Better understand the issues from producer to the end of the line
- Build communication and understanding



Our goal is identifying **“ACTIONABLE”** steps to improve Iowa's safety.



Iowa Crude Oil and Biofuels Rail Transportation Study

- **Partnering Agencies**
 - Iowa DOT
 - Iowa HSEMD
- **Consultant Team**
 - HDR, Inc.
 - Witt O'Brien's, LLC





Crude and Biofuels Study Approach

- Define the characteristics, risks, prevention, and emergency response system status and capabilities for Class 3 flammable liquids rail transportation in the state.
- Measure Iowa's **prevention, preparedness, response, and recovery** capabilities in the event that a crude oil or biofuel rail transportation incident were to occur.
- Consider both the physical characteristics (people, facilities, and environment) in the vicinity of rail routes transporting Class 3 flammable liquids, as well as the insight of industry representatives.
- Establish an Action Plan and Improvement Implementation Strategy



Stakeholder Consultation

Focusing on *prevention, preparedness, response*, and *recovery*; in-depth interviews were conducted with representatives of:

- Producers/shippers (i.e. biorefineries) of ethanol in Iowa
2 in total
- Railroads that move large volumes of Class 3 flammable liquids
4 Class I railroads and 4 Class II/III railroads (regional and short line)
- Emergency Managers
- Emergency Personnel
- Federal Agencies
- State Agencies
- Held two Stakeholder Committee meetings, bringing together RR's, Emergency Responders, shippers and agencies.



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IOWA ETHANOL AND CRUDE OIL RAIL ROUTES





Railroad Findings

- Ethanol routes nearly account for all of Iowa's rail mileage
- Ethanol and Crude Oil rail volumes are unlikely to change substantially
- Railroad Derailment Prevention Practices in Iowa are similar to other states
- Iowa DOT track inspectors improve compliance with FRA regulations





Emergency Management Findings

- Prevention, preparedness, and response programs vary according to each entity's needs, roles, and responsibilities
- Communication protocols between the sectors are complex and not interoperable.
- Relationships and coordination between sectors varies across the state
- Local emergency management coordinators in Iowa are often part-time, utilize volunteers, and may have limited or no staff
- 85 to 90 percent of local first responders are volunteers, which limits their availability for training, planning, and preparedness





Crude and Biofuels Study Recommendations and Improvement Actions

- 23 – Challenges for prevention, preparedness, response and recovery
- 35 – Recommendations
- 57 – Actions
- We are developing an implementation plan for the recommendations:
 - Who is responsible
 - Actions needed
 - Resources needed
 - Timeline



Recommendations

Prevention

Safety Improvements

- At-grade crossings – assess and prioritize
- Looking at cost-effectiveness for prioritization of state funds
- Education and enforcement

Public-Private Collaboration

- Standards and inspection activities for loading facilities
- Understanding railroad infrastructure needs





Recommendations

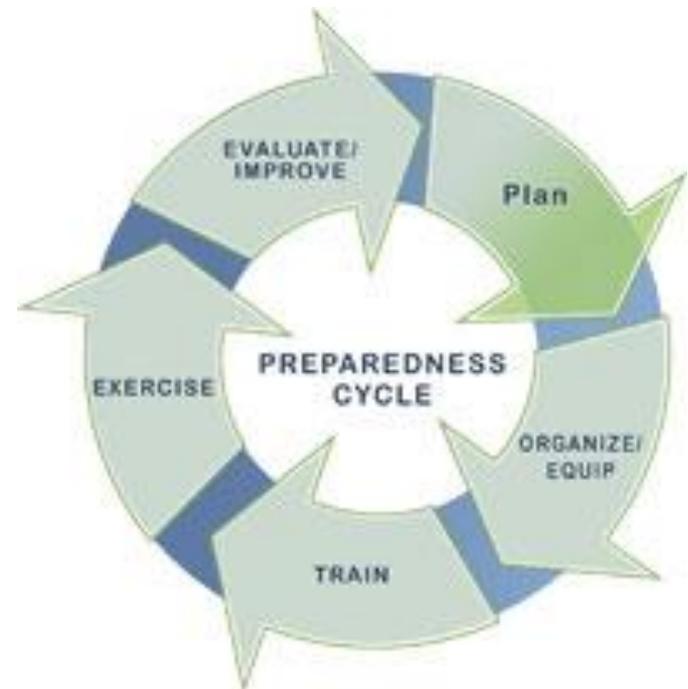
Preparedness

Local Capabilities and Preparedness

- Capabilities of county emergency management
- Use of Local Emergency Planning Committees
- Risk assessment and preparedness skills
- Processes to identify gaps in capabilities and communication

Information and Coordination

- Notification protocols and reporting criteria for hazmat movement
- Communication and relationships between railroads and local emergency management





Recommendations

Response

Coordination

- Response guidelines and training across sectors
- Interaction and communication during incidents
- Identification and tracking of public and private sector response resources and capabilities

Situational Awareness

- Accuracy and use of electronic data
- Timely sharing of incident-related information

Recovery

- Work with railroads to better understand their financial and organization capabilities for recovery after an incident.





Next Steps

- Define roles, responsibilities and timelines for each action
- Set goals and cycle for measurement and review



Questions?

