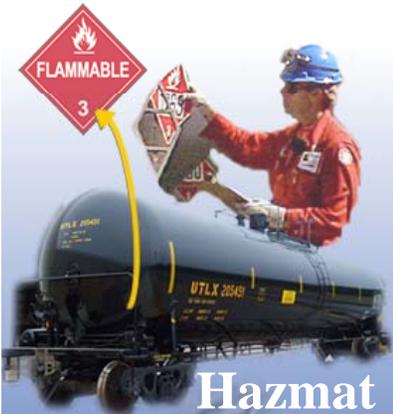




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Enhancing Railroad Hazardous Materials Transportation Safety

Kevin R. Blackwell

Radioactive Materials Program Manager

Hazardous Materials Division

Federal Railroad Administration

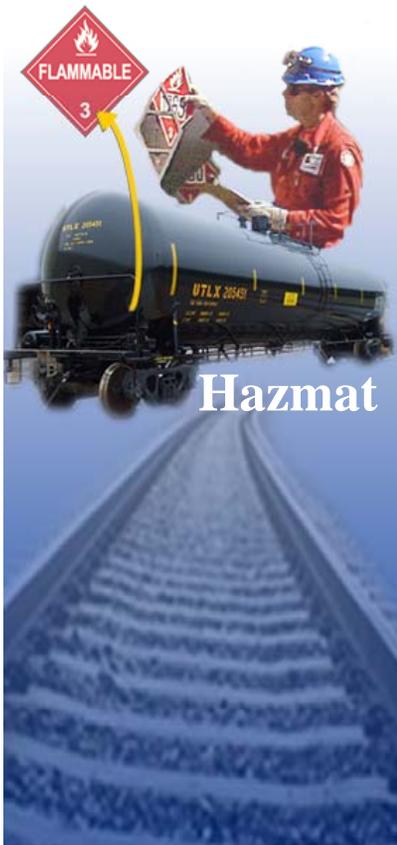
Presentation for the DOE NTSF Meeting

May 10-12, 2011



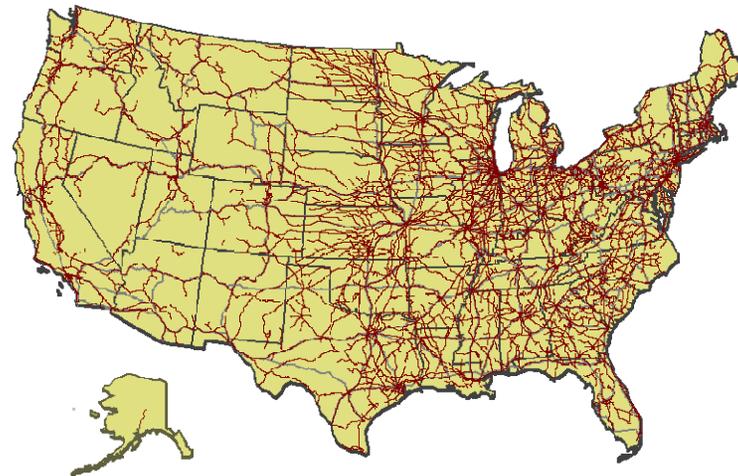
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Our Regulated Community

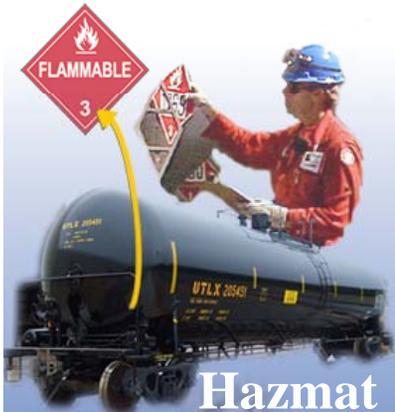


- More than 550 railroads
 - 170,000 miles of track
 - 220,000 employees
 - 1.3 million railcars
 - 20,000 locomotives
- 3,500 chemical shippers
- Roughly 2 Million annual HM shipments



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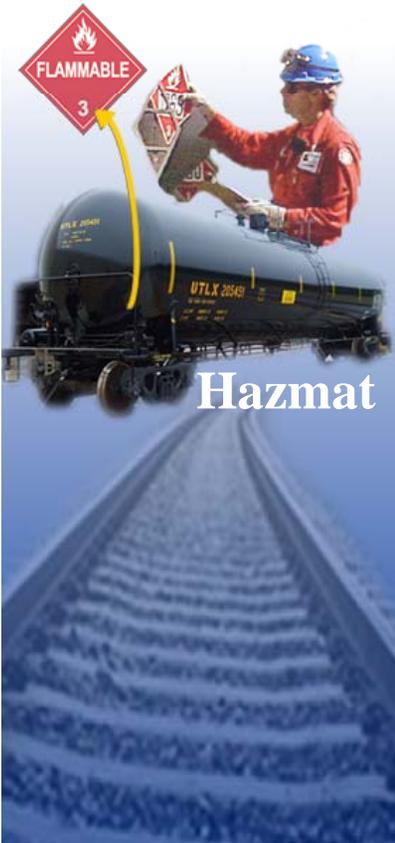
HM-232E Introduction

- Notice of Proposed Rulemaking
 - Issued December 21, 2006
- Interim Final Rule
 - Issued April 16, 2008
 - *Effective June 1, 2008*
 - *Voluntary compliance May 16, 2008*
 - IFR because of 9/11 Act requirements
- Final Rule
 - Issued November 26, 2008



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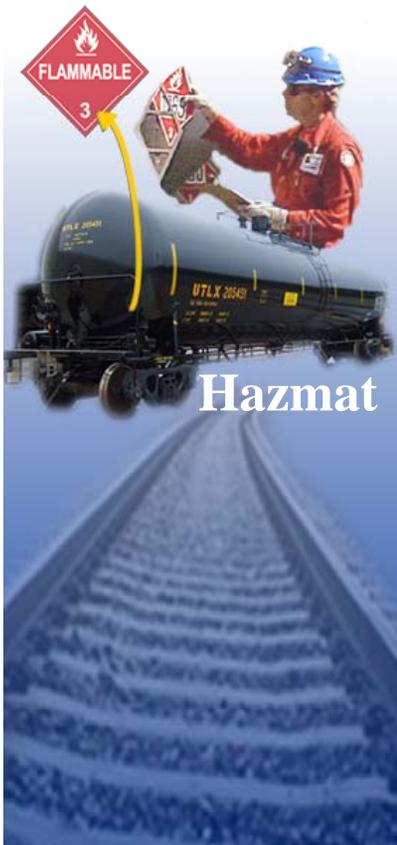
Need for a National Approach

- At least 14 cities and 1 state considered routing requirements
- Potential Impact on National Transportation System
- Need arose for national uniformity
 - Criteria for analyzing risk
 - Central Arbiter of routing decisions
 - Methodology and tools



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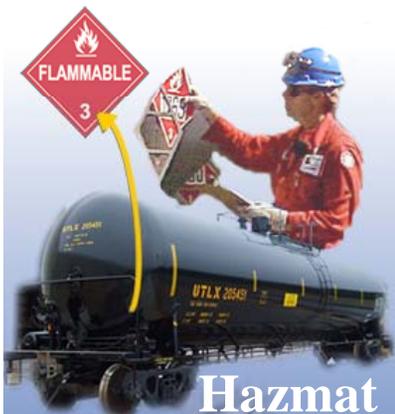
Rule Requirements

- Collect data
 - Certain high hazard materials
 - By route
- Use data to analyze route safety and security
- Analyze an alternate route
- Choose safest/most secure route
- Let us see the data and analysis
- Reduce storage/delays in transit
- Perform security inspections
- Separate appeal process



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Applicability

Applies to Carriers transporting:

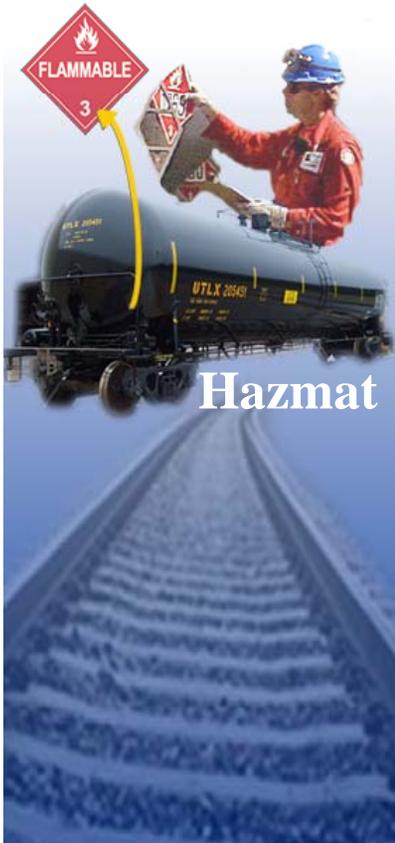
- Security Sensitive Materials
 - Designated by DHS
- Includes:
 - >5,000 lbs Division 1.1, 1.2, or 1.3 (single carload)
 - A bulk quantity of PIH (includes NH_3)
 - A Class 7 material in HRCQ Quantity





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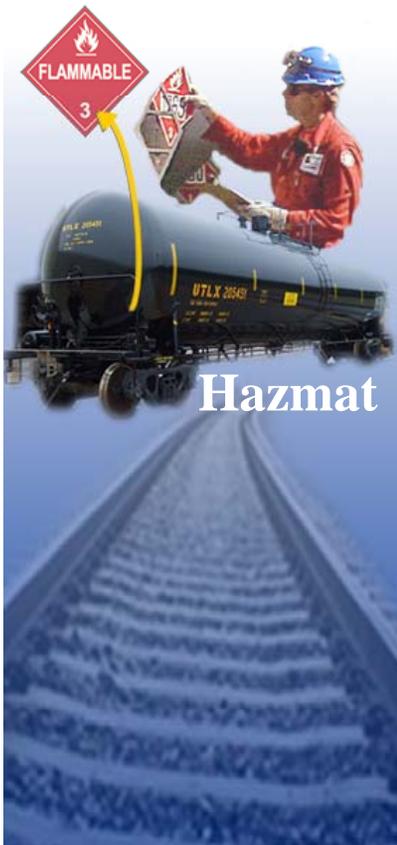
Collecting Data

- Commodity data must be kept and compiled by carriers for the previous ***calendar*** year
 - Complete by 90 days after end of CY
 - 2008 contains only 6 months (7/1 to 12/31)
 - *Unless using delay provisions*
- Collected by route, line segment or series of line segments
- Commodity data by UN number
 - Can include all Class 7 and 6.1
- Identified by geographic location



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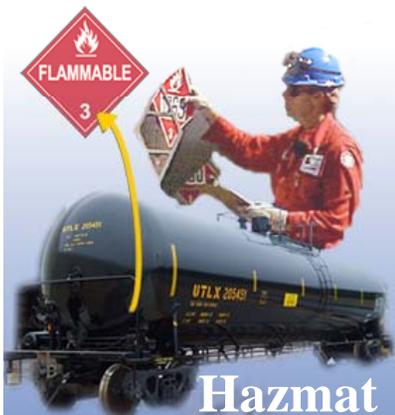
Route Analysis

- In Writing
- Analysis include appendix D
 - 27 factors are minimum
- Includes:
 - Classification/Switching Yards
 - Sidings
 - Storage Facilities
- Excludes:
 - Offeror/Consignees Facilities
 - Private Sidings/Tracks



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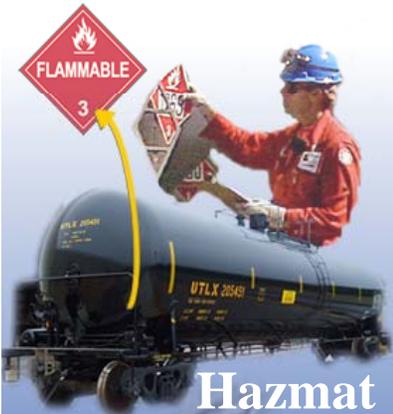
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27 Risk Factors

- Volume
- Traffic density
- Trip length
- Facility presence/location
- Track Type/Class/Main. Sch.
- Track grade/curvature
- "Dark" vs "Signaled"
- Wayside detector presence
- Grade crossing #/types
- Single vs. Double track
- Turnout freq./ location
- Iconic target proximity
- Env. Sensitive areas
- Population density
- Venues along routes
- Emer. Response Capability
- High Consequence areas
- Passenger traffic
- Train Speed
- Proximity of storage/repair facilities
- Known threats
- Safety/Security measure in place
- Availability of practical alternate routes
- Past incidents
- Transit times
- Crew training & skill levels
- Impact on rail network traffic & congestion



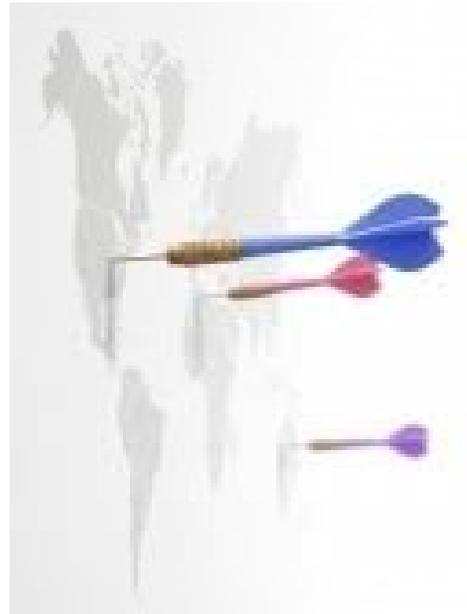
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Selecting the Route

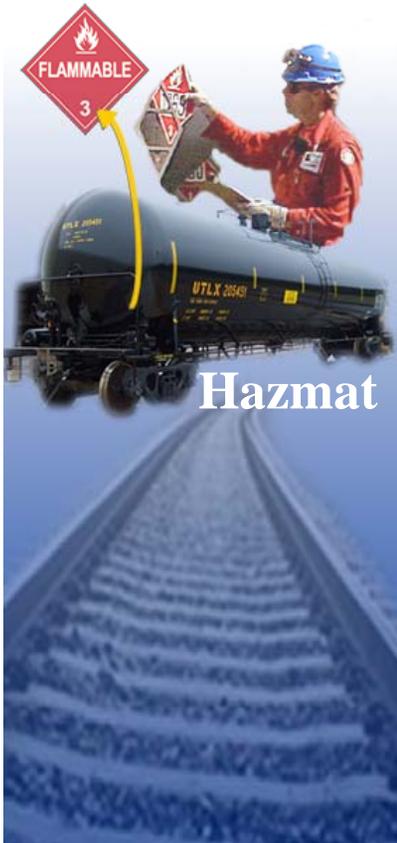
- Select safest/most secure route
- Annual review required
- Restrict disclosure (SSI)
 - Comparative analysis
 - Charts and Graphs
 - System Maps





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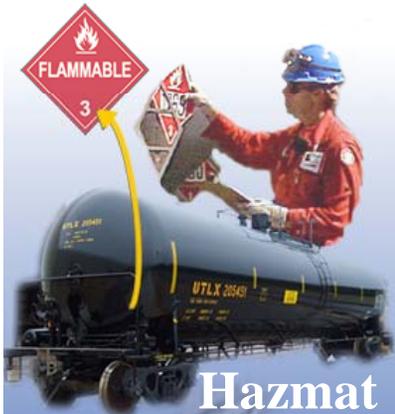
Consultation

- Identifying High Threat Targets
- Requires RRs to consult with State, Local, and Tribal Officials
- Two Options
 - Fusion Centers
 - Direct
- Carriers must provide name, title, telephone number, and e-mail address to fusion centers and those officials who contact them



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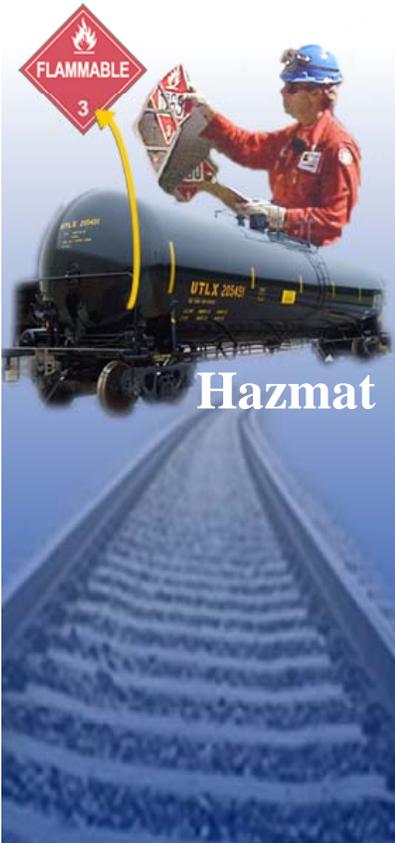
Security Inspections

- By carriers
 - Acceptance
 - Placed in trains
- Specifics
 - Tampering
 - Suspicious items
 - Compromised security
- Indications
 - Follow security plan
- Commodities
 - 172.820 Materials
 - Ammonium Nitrate
 - HM of Interest (Threat based)





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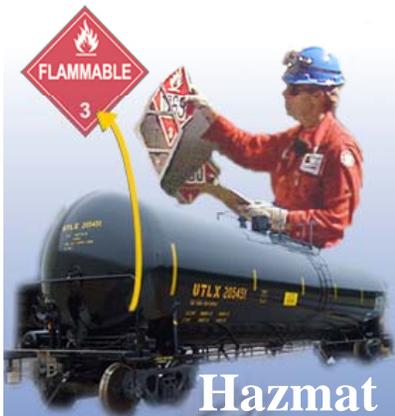
Storage/Delays in Transit

- Written Revisions to Security Plan
 - Procedure for consulting with shippers and consignees
 - *Mutual consent required*
 - *Measures for minimizing*
 - Preventing unauthorized access to §172.820 materials
 - Mitigating storage risk in population centers
 - Procedures for notifying consignees of delays



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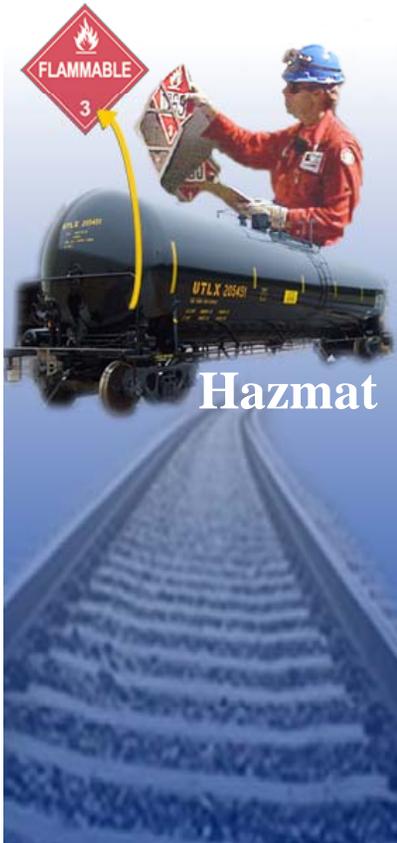


Upcoming Compliance

- September 1, 2009
 - Initial Analysis
 - *Uses July-December, 2008 data*
 - *Full Compliance with Rule*
 - Written Notification of Delay
 - *Can delay analysis until March 31, 2010*
 - *Must include full 2008 data*
- March 31, 2010
 - Compilation of 2009 shipment data



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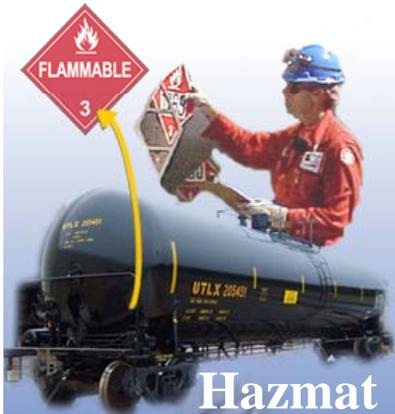
Enforcement Approach

- Early (pre-deliverable) start to ensure appropriate approach
 - Coordinated with TSA and PHMSA
 - *Uniformity*
 - *Security Expertise for balanced approach*
- Enforcement program similar to Security Plan Reviews
 - More resource intensive
- Tool being developed to enable national approach
 - DHS funded
 - Production version online June 1, 2009



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Introduction

The Rail Corridor Risk Management System (RCRMS) is a tool to be used by rail carriers to:

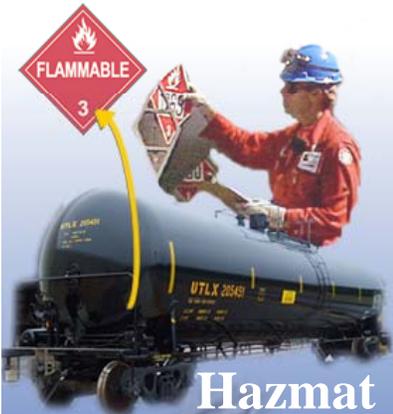
- (1) **Maintain HAZMAT commodity flow information**
- (2) **Analyze and compare alternative route risks**

RCRMS assists in complying with the Pipeline and Hazardous Materials Safety Administration's (PHMSA's) regulation entitled **"Enhancing Rail Transportation Safety and Security for Hazardous Materials Shipments"**



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Thank You



Still have Question?

- Contact me at 202.493.6315
- Visit FRA's web page at www.fra.dot.gov
- Visit PHMSA's web page at <http://hazmat.dot.gov>
- E-mail me at kevin.blackwell@dot.gov
- E-mail hmassist at hmassist@dot.gov