Hazmat Series Part 8:
Hazardous Materials & NARs
Guidelines for Railcar Inspection

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Today’s Topics:

- Discuss Hazmat authority and goals
- Review responsibilities for conducting a ground level inspection of a car containing a hazardous material
- Review Non-Accidental Releases (NARs)
Within the U.S. DOT, the Pipeline and Hazardous Materials Safety Administration (PHMSA) is the operating administration responsible for promulgating the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180).

FRA is the operating administration responsible for enforcing the HMR related to the movement of hazardous materials by rail.
The goal of FRA’s HM safety program is to manage the risks inherent to the transportation of HM by rail. Achievement of this goal requires reducing and eliminating risk, where possible, to protect the public and ensure the continuing economic viability of the Nation. The goal is cultivated through a variety of compliance tools including:

- Education
- Inspection
- System assessments
- Enforcement
HM Staffing

Headquarters
- Staff Director
- HM Specialists (6)
- QA Specialists (4)
- Packaging Engineers (2)

Eight Regions
- Regional Specialist (8)
- Federal HM Inspectors (63)
- State Inspectors
Train Movements

- What inspections are required by train service employees?
**Basic definition of a train is:**

One or more locomotives coupled together except during operations that involve switching.
You meet the definition of a train under the following conditions:

- When the air brake rules apply,

- In addition, because interchange involves the change of custody/responsibility with the cars; transfer movements, regardless of the applicability of the air brake rules, are not considered switching and will require that you comply with the HM regulations.
The FRA Definition of A train continued...

- Understand, that if you meet this definition, all parts of the HM regulations are in effect including but not limited to; proper HM paperwork, train placement, all apply regardless of distance, YARD LIMITS or other circumstances.
HM Train Documents

- A readable document
- Basic information there
- Does my document/s match the car that I am picking up.
Basic Information on a hazardous shipping document

- UN or NA identification number
- Proper shipping name
- Hazard class
- Packing Group (if applicable...not for gasses)
- RQ- Reportable Quantity (not always applicable)
- Emergency Response Telephone Number
The train crew must have a document that reflects the current position in the train of each rail car containing Hazmat (load or residue). In addition, a member of the crew of a train transporting Hazmat must have a copy of a document for the Hazmat being transported showing the information required by Part 172 of the subchapter (i.e., full Hazmat shipping description, including any additional description requirements).
Readable vs. Unreadable train documents

- Train Consist or Shipping Papers faded (Possibly due to a printer)
- While relieving a train crew on the road be sure you can read the manual updates left by the previous train crew. (bad penmanship)
- Water damage (documents left in a knuckle or in an unsealed plastic bag on the rail car.)
- Do not accept any hazardous documents unless you have a clear readable copy that you can understand and review for compliance with the federal regulations and your operating rules.
What are my Responsibilities when Picking up Hazardous Railcars?

• When operating local trains during industry pick-ups, road pick-ups and other yard to yard freight train moves;

You are required to inspect every hazardous materials car **AT GROUND LEVEL** in your train on both sides and ends for the following,

**Leaks!**

Examples;
- Product on or running down the sides of the tank car from the top operating platform
- Product seeping or dripping from the tank shell or jacket
- Product seeping or dripping around the bottom outlet valve assembly including the valve body, cap and plug)
LEAKS - running down the sides of the tank car
LEAKS - running down the sides of the tank car
LEAKS, Loose Closures, or any other condition that makes a car unsafe for transportation.

Product leaking down the side of the tank

Product on the outlet assembly
§171.15 Immediate notice of certain hazardous materials incidents.

(a) General. As soon as practical but no later than 12 hours after the occurrence of any incident described in paragraph (b) of this section, each person in physical possession of the hazardous material must provide notice by telephone to the National Response Center (NRC) on 800-424-8802 (toll free) or 202-267-2675 (toll call) or online at http://www.nrc.uscg.mil. Each notice must include the following information:
§171.15 Immediate notice of certain hazardous materials incidents.

(a) (1) Name of reporter;
(2) Name and address of person represented by reporter;
(3) Phone number where reporter can be contacted;
(4) Date, time, and location of incident;
(5) The extent of injury, if any;
(6) Class or division, proper shipping name, and quantity of hazardous materials involved, if such information is available; and
(7) Type of incident and nature of hazardous material involvement and whether a continuing danger to life exists at the scene.
§171.15 Immediate notice of certain hazardous materials incidents.

(b) Reportable incident. A telephone report is required whenever any of the following occurs during the course of transportation in commerce (including loading, unloading, and temporary storage):

(1) As a direct result of a hazardous material—
   (i) A person is killed;
   (ii) A person receives an injury requiring admittance to a hospital;
   (iii) The general public is evacuated for one hour or more;
   (iv) A major transportation artery or facility is closed or shut down for one hour or more; or
   (v) The operational flight pattern or routine of an aircraft is altered;
§171.15  Immediate notice of certain hazardous materials incidents.  
(b)(2) Fire, breakage, spillage, or suspected radioactive contamination occurs involving a radioactive material (see also §176.48 of this subchapter); 
(3) Fire, breakage, spillage, or suspected contamination occurs involving an infectious substance other than a regulated medical waste;  
(4) A release of a marine pollutant occurs in a quantity exceeding 450 L (119 gallons) for a liquid or 400 kg (882 pounds) for a solid;
§171.15 Immediate notice of certain hazardous materials incidents.

(b)(5) A situation exists of such a nature (e.g., a continuing danger to life exists at the scene of the incident) that, in the judgment of the person in possession of the hazardous material, it should be reported to the NRC even though it does not meet the criteria of paragraphs (b)(1), (2), (3), or (4) of this section; or

(6) During transportation by aircraft, a fire, violent rupture, explosion or dangerous evolution of heat (i.e., an amount of heat sufficient to be dangerous to packaging or personal safety to include charring of packaging, melting of packaging, scorching of packaging, or other evidence) occurs as a direct result of a battery or battery-powered device.
§171.15 Immediate notice of certain hazardous materials incidents.

(c) Written report. Each person making a report under this section must also make the report required by §171.16 of this subpart.
§171.16 Detailed hazardous materials incident reports.

(a) General. Each person in physical possession of a hazardous material at the time that any of the following incidents occurs during transportation (including loading, unloading, and temporary storage) must submit a Hazardous Materials Incident Report on DOT Form F 5800.1 (01/2004) within 30 days of discovery of the incident.
Carrier Regulatory Responsibilities when discovering Hazardous Railcars or Certain Packages Leaking “NARs”

DOT Form F 5800.1

Found in the back of PHMSA’s Guide for Preparing Hazardous Materials Incidents Reports
You are required to inspect every hazardous materials car at ground level in your train on both sides and ends for the following,

**Leaks!**

Examples;
- Product on or running down the sides of the tank car from the top operating platform
- Product seeping or dripping from the tank shell or jacket
- Product seeping or dripping around the bottom outlet valve assembly including the valve body, cap and plug)
Loose Closures, or any other condition that makes a car unsafe for transportation

Bottom outlet cap and plug hanging by it’s safety chain

Bottom outlet plug hanging from its chain!
What are my Responsibilities when Picking up Hazardous Railcars?

- When operating local trains during industry pick-ups, road pick-ups and other yard to yard freight train moves;

  You are required to inspect every hazardous materials car **AT GROUND LEVEL** in your train on both sides and ends for the following,

  **Required markings**

  Examples;
  - Commodity stencils such as, Liquefied Petroleum Gas on both sides of tank car
  - “Inhalation Hazard” (both sides of tank car)
  - Legible tank car stencils (both sides of tank car)
  - Placards (readable, not faded or torn, missing etc.)
Marking problems? What does this mean?

The image shows a tank with the following markings:

- **Anhydrous Ammonia**
- **Liquefied**
- **Inhalation Hazard**

These markings indicate the presence of hazardous chemicals and the potential dangers associated with inhaling the ammonia.
When a new year turns over its critical that these dates are watched closely. If you find a car with expired dates such as a car in industry or interchange, DO NOT Move the car until you report it to supervision and wait for further instructions (the example below is a good clear legible stencil that is in compliance).

<table>
<thead>
<tr>
<th>DOT 111A100W1</th>
<th></th>
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<tbody>
<tr>
<td>TANK QUALIFICATION</td>
<td>STATION STENCIL</td>
</tr>
<tr>
<td>THICKNESS TEST</td>
<td>TRAM</td>
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<tr>
<td>SERVICE EQUIPMENT</td>
<td>TRAM</td>
</tr>
<tr>
<td>PRD VALVE 75 PSI</td>
<td>TRAM</td>
</tr>
<tr>
<td>EXT COILS 200 PSI</td>
<td>TRAM</td>
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<tr>
<td>COATING/LINING TYPE</td>
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<tr>
<td>DATE APPLIED</td>
<td></td>
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<tr>
<td>88.B.2 INSPECTION</td>
<td>TRAM</td>
</tr>
<tr>
<td>STUBSILL INSPECTION</td>
<td>TRAM</td>
</tr>
</tbody>
</table>
Thing to consider about test dates:

HINT!

It's January 5, 2017 – is this car ok to be accepted at interchange or industry?
How to Match a placarded rail car/tank car to your paperwork

Compare the railcar number placard class and ID numbers on the paperwork to the car number on the document.

Make sure all of the required parts of a shipping paper are on the document;

1) Identification Number: UN 2582

2) Proper Shipping Name: Sodium Hydroxide

3) Hazard class: 8 Corrosive

3) Packing Group: PG II.. (If required)

4) Emergency Response Telephone Number: 1-800-424-9300
   (Chemtrec is most common or any telephone number, just not 0’s or X’s)
1 T/C
RESIDUE: LAST CONTAINED UN2582
FERRIC CHLORIDE, SOLUTION CLASS 8
//PG III
RQ (FERRIC CHLORIDE)
US EMERGENCY CONTACT :
8004249300
SHIPPER CONTACT: CCN18172
HAZMAT STCC=4932342
***** END OF HAZMAT DATA *****
INTERSTATE SHIPMENT
INTERFACED
Making sure you have the right document for the right car.

First, let's match the UN/NA id number on the placard with the UN/NA number on the hazmat waybill/shipping document!

1 T/C
RESIDUE: LAST CONTAINED
UN2582
FERRIC CHLORIDE, SOLUTION
CLASS 8
//PG III
RQ (FERRIC CHLORIDE)
US EMERGENCY CONTACT:
8004249300
SHIPPER CONTACT: CCN18172
HAZMAT STCC=4932342
Making sure you have the right document for the right car.

Second, let's match the hazard class number on the placard with the hazard class number on the hazmat waybill/shipping document!

1 T/C
RESIDUE: LAST CONTAINED
UN2582
FERRIC CHLORIDE, SOLUTION
CLASS 8
//PG III
RQ (FERRIC CHLORIDE)
US EMERGENCY CONTACT:
8004249300
SHIPPER CONTACT: CCN18172
HAZMAT STCC=4932342
Placards must be clear and legible and properly oriented

Class Number should be on the bottom of the placard, not torn or faded and clearly legible from the direction it faces.

The UN (United Nations) or NA (North American) identification number must also be clear and legible from the direction it faces.
Is This a Good Placard?
It traveled over 500 miles in this condition!
Key Things to Remember:

- Work at your pace
- Complete your inspections thoroughly
- Take time to update your paperwork properly
- And most of all;
  - If the air brake rule applies you are a train and you must have all of your required hazardous materials documents
  - Do not accept a rail car, tank car, or assume the responsibilities of a road train outside of its destination without taking the necessary steps to properly check paperwork, the rail cars, and tank cars when required.
  - Ultimately, you are responsible for the quality and accuracy of that paperwork because you are the first responder in the event of an emergency. The accuracy of your train documents can help save lives in a hazmat emergency.
- Let's try and prevent Non-Accident Releases (NAR’s)!
Use your Resources!
Any Questions?
Hazardous Materials & NARs Guidelines for Railcar Inspection

Questions, Please Contact:

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