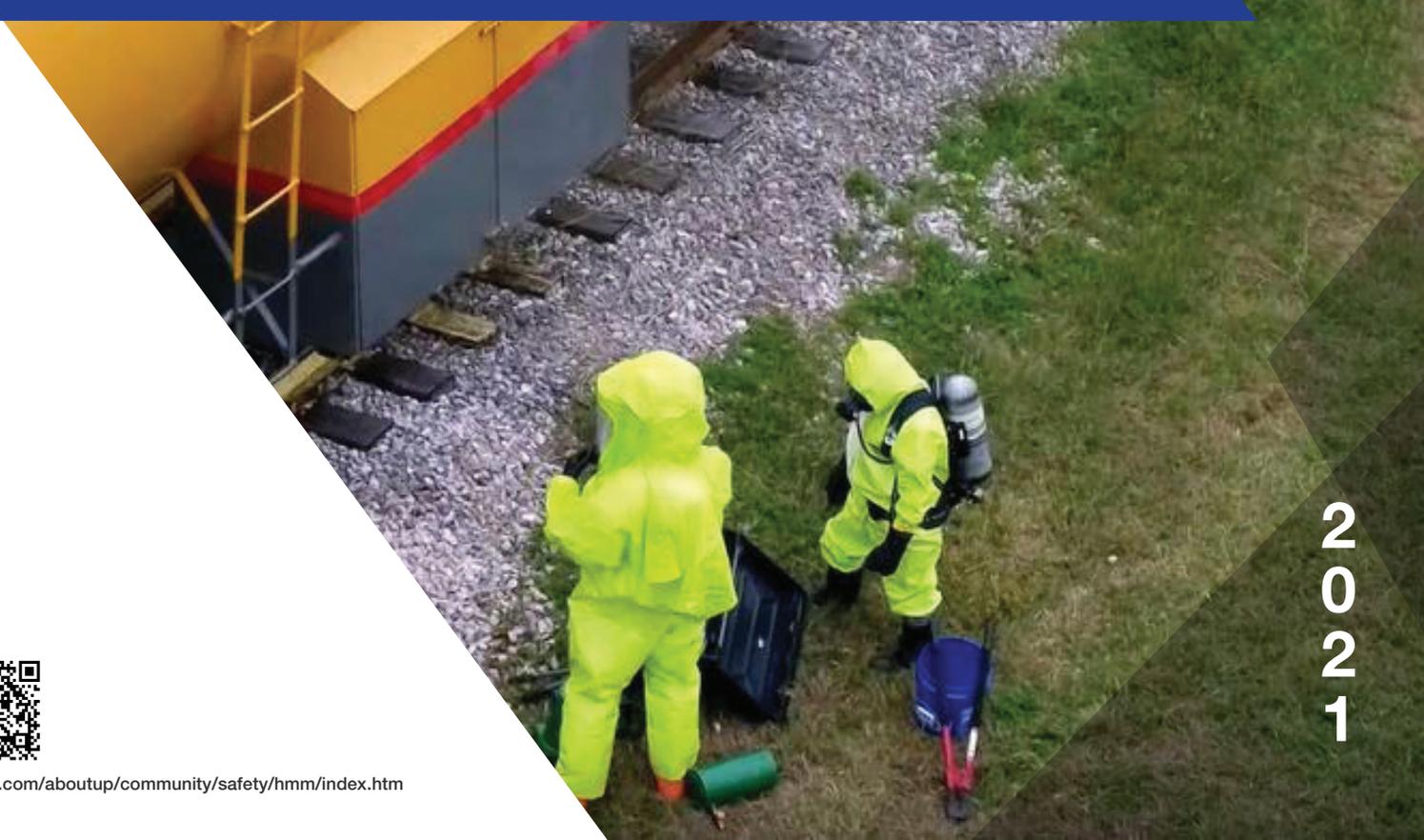




UNION PACIFIC HAZARDOUS MATERIALS MANAGEMENT



www.up.com/aboutup/community/safety/hmm/index.htm

2021



UNION PACIFIC HAZARDOUS MATERIALS MANAGEMENT

OUR MISSION

Union Pacific's Hazardous Materials Management (HMM) group members are leaders in hazardous material transportation safety, securement and response.

The HMM team takes its responsibility to ship hazmat, as mandated by federal law, seriously. Providing safe and fuel-efficient freight transportation is part of Union Pacific's participation in America's energy evolution.

We share the same goal as our customers and the communities we serve -- to deliver every tank car safely while being prepared to respond in case of an accident.



PREVENTION

HMM team members regularly inspect tank cars moving on the Union Pacific network to ensure safe transportation. Here's how the team makes that happen:

- In each inspection, an HMM team member examines fittings, markings, safety appliances, and waybills among other items to ensure safety of shipment.



PREPAREDNESS

Preparation is critical to an appropriate incident response.

- HMM develops the Union Pacific Hazardous Materials Emergency Response Plan (HMERP), a performance-based plan that provides guidance to the individual reporting a release as well as a list of training requirements for those responding to an incident.

Providing no-cost training to public responders is Union Pacific's most substantial preparedness effort:

- Having cataloged every fire department that may respond to an incident along the Union Pacific network, each year HMM team members offer training or information to assist fire departments in their preparation for a potential incident.
- Training consists of classroom and hands-on activities using a specially designed training trailer or training tank car.
- Trainees learn how to contact the railroad during an emergency, how to read shipping documentation, derailment safety considerations, and what assets the railroad can provide in the event of an incident.
- HMM performs large-scale training events in collaboration with Union Pacific's partners in TRANSCAER (Transportation Community Awareness and Emergency Response).

TRAINING OPPORTUNITIES AVAILABLE:

- **Railroad 101:** First responder safety when responding to a railroad emergency
- **Crude By Rail Web-Based Training**
- **40-hour Tank Car Safety Course:** In-depth classroom and hands-on training for first responders located in Pueblo, CO; Tarrant County, TX; Longview, TX; California and Oregon.
- **Drills/Exercises:** Specially designed tank cars brought to your town to simulate response to tank car leaks. *(Dependent on class size and location accessibility)*
- **Understanding Tank Cars:** Specially designed training trailers brought to your location as an introduction to tank cars
- **TRANSCAER (Transportation Community Awareness and Emergency Response) events:** Multi-day, multi-modal training for multiple fire departments from the same geographic area that focuses on assisting communities to prepare for and respond to a possible hazardous material transportation incident. (www.transcaer.com)
- **Product Specific Training:** May include crude oil, flammable liquids, Poison Inhalation Hazards (PIHs). Taught in conjunction with American Chemistry Council (ACC) product experts.





UNION PACIFIC HAZARDOUS MATERIALS MANAGEMENT OUR MISSION



RESPONSE

Union Pacific's response process easily fits into a public response incident command structure.

- Union Pacific's process requires ANALYZING the problem, PLANNING the response, IMPLEMENTING the plan and EVALUATING/ADJUSTING the response as necessary.
- Union Pacific's Response Management Communication Center (RMCC) is an around-the-clock emergency response center where critical call dispatchers manage calls from the public, law enforcement and others across Union Pacific's 32,000-mile network.
- RMCC follows all regulations regarding notification of local, state and federal agencies in the event of an accident and works closely with first responders throughout an incident.

Union Pacific has 18 highly trained hazardous materials responders along with response equipment in the form of firefighting trailers, foam caches, air monitoring equipment and specialty tools to ensure resources are readily available.



RECOVERY

Once an incident has been stabilized, recovery begins.

- If a tank car has been damaged and cannot travel safely on rail, the contents must be transferred to an undamaged car. Union Pacific is the only railroad that owns and operates all equipment necessary to transfer liquids or compressed gases. Once the tank car is empty of all contents, HMM will clean and purge the damaged car to ensure it can be safely repaired or dismantled.
- Once all hazardous materials have been removed from the incident site, HMM will transition the project for remediation and closure with regulatory agencies.
- Recovery also includes a debriefing with the public responders. These activities improve the group's overall capability and depth.



To report an emergency or to stop a train notify RMCC at
1-888-877-7267



Request for Hazardous Commodity Flow Information.

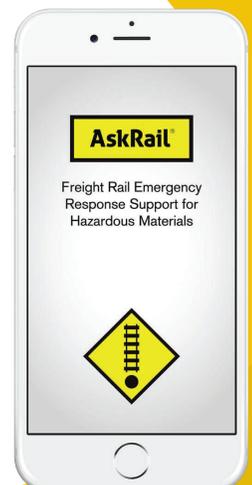
Upon request, UPRR will provide bona fide emergency response agencies or planning groups with commodity flow information for the hazardous commodities transported through the community.



AskRail[®]

www.askrail.us

AskRail™ provides immediate access to accurate, real-time information about railcars carrying hazardous materials on a train.



Public responders may request training by emailing hmm@up.com



To report an emergency or to stop a train notify RMCC at **1-888-877-7267**

- Criminal Activities
- Crossing Accidents / Accidents, Not at Crossings
- Derailments
- Fires
- Hazardous Material Spills / Environmental Incidents
- Injured Parties / Fatalities
- Track Obstructions

Obtain the consist from the conductor upon arrival. **If conductor is not available contact RMCC.**
 Obtain consist before approaching site of derailment or leaking car.
 Approach incident from upwind and assess with binoculars.
 Contact with **Hazmat manager** should be made through RMCC early into incident (within 1st 15-20 min if possible)

BASIC RAIL SAFETY

- Always expect a train from either direction - provide spotter to stay in contact with RMCC
- **Contact RMCC to stop train traffic if working near or on tracks or laying supply line across tracks**
- Provide flagger 2 miles in either direction from incident location
- Make contact with the crew or yard personnel **BEFORE** climbing on or over a rail car
- Use walkways and face cars when climbing, 3 points of contact. **NEVER** climb over couplers and under cars
- Watch for slips, trips, and falls - ground may be uneven and trip hazards present
- Don't linger between tracks or stand on rails
- Stay at least **25 FEET** away from all train equipment. Do not lean on trains or locomotives

SCENE SIZE-UP

- What do you see? (fire, smoke, vapor, liquid leaks, etc)
- Audible noises? Whistling or hissing?
- How many cars and what position are they in? Approach from upwind with binoculars
- Topography of the area? Bodies of water, ditches, drains, etc near-by
- Proximity to residential or commercial buildings

TANK CAR TYPES

PRESSURE CAR - Single Protective Housing



(Only one thing on top - nothing on bottom)
 Compressed gas product - LPG, Chlorine, Andryous Ammonia.
 May contain flammable or non-pressure material.

NON PRESSURE CAR - Fittings on top (multiple) and bottom car



Liquids - Flammable, non haz, food products.
 Jacketed or non-jacketed.

CRYOGENIC CAR - No fittings on top of car



Refrigerated liquid - Argon most common - venting from pipes up the side of the car is normal operation.
 Valve box either on end of car or in the center

CARS LISTED FROM REAR OF TRAIN

(i.e. car#1 is the last car on the train)

Example Consist

6	GATX 219486	ET22	POISON	C 003	NS	BRIDGEPORT NJ	VALTRI	SPE
168	FROM HEAD	50-MPH	39-TONS	56-FT	1-P	1.00-BRK	502-ATONS	376-AFT
						1/TK		
*****						RESIDUE: LAST CONTAINED		
* DANGEROUS *						UN1738		
*****						BENZYL CHLORIDE		
EMERGENCY CONTACT:						6.1 (8)		
8004249300						PG II		
						RQ (BENZYL CHLORIDE)		
						SHIPPER CONTACT		
						CHEMTREC CCN 717950		
						HAZMAT STCC = 4921209		

SEQ - Position of car relative to caboose/end of train (i.e. 6 is 6th car from end of train)

EQUIPMENT ID - Car's reporting mark or car number (need both alpha and numerics)

L or E - First letter under KND signifying load (L) or empty (E). Hazmat residue cars will show (E)

KND - Next letter after (L) or (E) signifies type of car, remaining signifies car characteristics

COMDTY - Six character general indication of contents (on empty cars it will be blank most of the time)

DESTN, ZTS/CARR, NXBLK, CITY/STATE, CONSIGNEE, MPH, ATONS, 1.0 BRK

Not relevant for initial emergency response

Hazmat shipments (L) or (E) will be identified with asterisks - (wording may or may not be present in the block of stars but is still a hazmat shipment)

Hazmat loads in hopper cars will be a solid material

Intermodal hazmat shipments may only be small quantities (May be mixed loads)

CAR TYPES

- A** - Equipped Box Cars
- B** - Unequipped Box Cars
- C** - Covered Hopper Cars
- D** - Locomotive
- E** - Equipped Gondola
- F** - Flat Cars
- G** - Unequipped Gondola
- H** - Unequipped Hopper
- J** - Gondola Cars
- K** - Equipped Hopper Cars
- L** - Special Type Cars
- M** - M-O-W, Scale, Passenger, Caboose, and End-of-train information systems
- P** - Conventional intermodal cars
- Q** - Lighter weight, low-profile intermodal cars
- R** - Refrigerator cars
- S** - Stack car
- T** - Tank car
- U** - Containers
- V** - Vehicular flat cars
- Z** - Trailers

YOUR LOCAL HAZMAT MANAGER

name

phone

Feel free to contact him/her with any questions or to request training opportunities

FD 20 QUESTIONS

1. What is the wind direction?
2. Where is the crew?
3. How many are on board?
4. Do I have a copy of the consist?
5. **Have I contacted UPRR Hazmat representative?**
6. What lines of the consist are involved in the incident?
7. Is there any hazmat in those consist lines?
8. Have I verified the consist lines involved through use of binoculars or visual observance?
9. What is the last car on the tracks on each end of the incident? (Everything in between is involved!)
10. What are the cars involved (loaded or empty, type of car, are they hazmat)?
11. What is the physical state of the product (Solid, liquid, gas)?
12. If no hazmat, do I have any with environmental concerns (Soda ash, lime, oil)?
13. **Have I contacted UPRR Hazmat representative?**
14. What are my surroundings (Schools, residential, commercial)?
15. Do I need to evacuate, shelter-in-place, or leave as is?
16. Is the locomotive involved?
17. Can I see the incident?
18. Is there a vapor cloud, smoke, or haze in the area?
19. Have I met with the train crew?
20. **Have I contacted UPRR Hazmat representative? (RMCC at 1-888-877-7267)**

