CSX
5386
CSX
How tomorrow moves

CSX TRANSPORTATION

- **Robert Rohauer – Manager,**

Public Affairs & Community Relations

- **Michael Bethge – Manager,**

Hazardous Material Systems – Field Services

CSX CORPORATION

CSX TRANSPORTATION

CSX INTERMODAL

CSX TransFlo

We Deliver Rail Savings By The Truckload

CSX How tomorrow moves

CSX in America

CSX operates in:

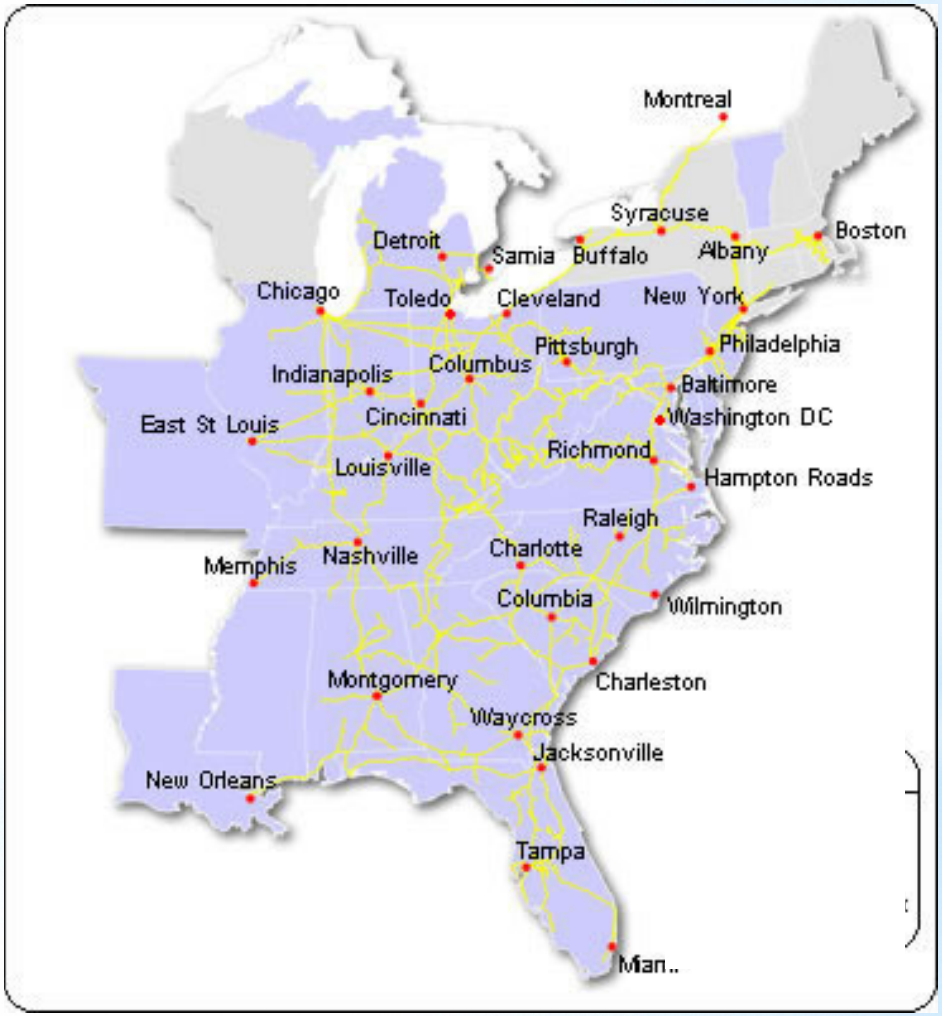
- 23 states, 2 Canadian Provinces, and DC
- 700 counties
- 13,000 jurisdictions

Infrastructure includes:

21,000 route miles
37,000 physical track miles
Bridges, Tunnels, Classification Facilities,
Dispatch Centers, Office Buildings.

Transportation Service Provided:

Coal
Automotive
Grain/Agriculture
Food/ Consumer Goods
Metals
Chemicals



Life-Cycle of a Shipment

Customer Prepares Car for Pick-up

Railroad accepts car in to transport

Cars are classified in rail yard for delivery

Car is constructively placed at customers track

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Introducing

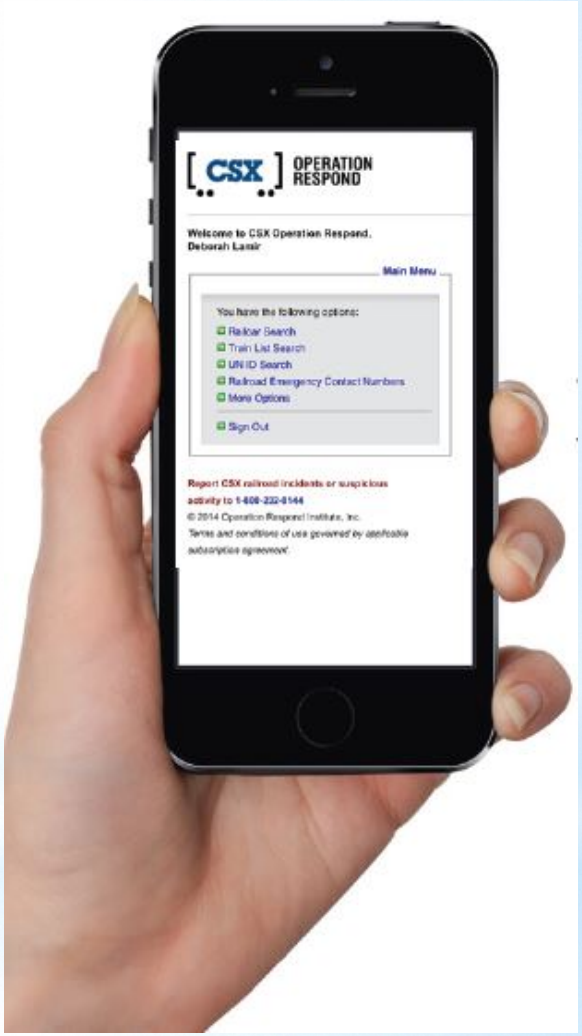
CSX Operation Respond

The right tool,
for the right people,
at the right time

CSX How tomorrow moves

CSX Operation Respond

- ✓ CSX Operation Respond is a mobile emergency information system
- ✓ Designed specifically for emergency first responders
- ✓ Aids in responding to rail related emergencies – especially those involving hazardous materials
- ✓ Provides real-time information on the contents of rail cars
- ✓ Provides real-time complete train list information
- ✓ Provides a suite of other useful emergency response information
- ✓ Works with iPhone, Android devices and most web browsers



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CSX Operation Respond

Operation Respond addresses a longstanding NTSB recommendation

"In 2007, we first recommended that the FRA work with the Pipeline and Hazardous Materials Safety Administration to require that railroads provide emergency responders accurate, real-time information regarding the identity and location of all hazardous materials on a train. Today we reiterated this recommendation. Making this communication mandatory across the rail industry will enable first responders to have access to the information that they need."

NTSB Acting Chairman, Christopher A. Hart
Closing Statement, Paulsboro, NJ, Train Derailment Board Meeting
July 29, 2014

And that of legislative and local officials

"...emergency responders don't have access to real-time information about the hazardous materials they (the railroads) carry"*

U.S. Senator Charles Schumer

"Anything they can do to provide real-time information to us so that we have it immediately is going to help us."*

Buffalo NY Fire Commissioner Garnell Whitfield

* May 1, 2014, WIVB News 4, Buffalo, NY

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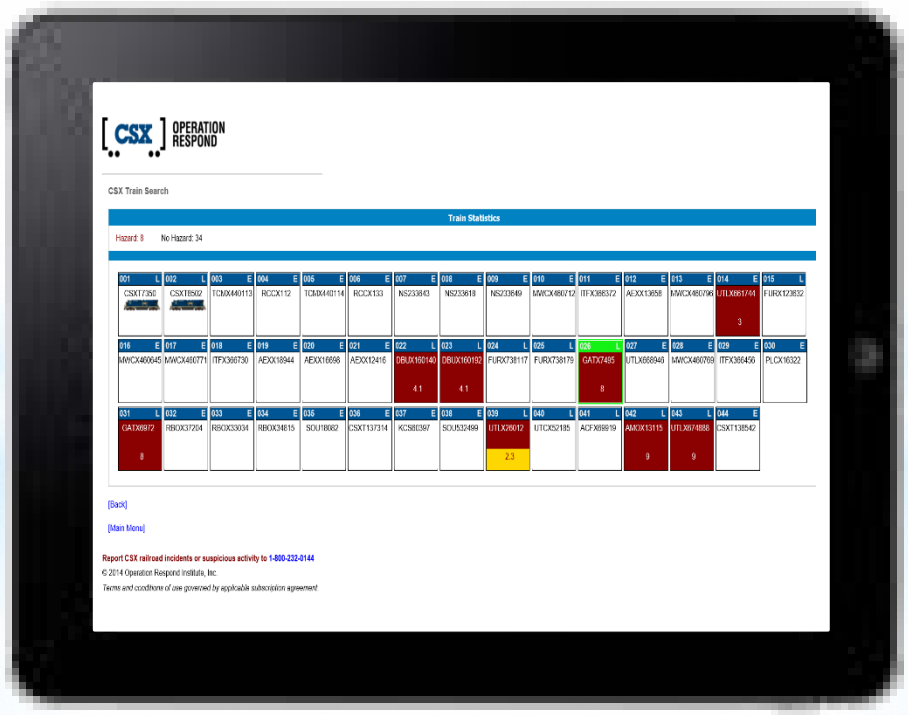
CSX Operation Respond

How it works - An emergency responder simply needs to enter a rail car's identification number (e.g. UTLX-259813) to access:

- Contents of the rail car
- Detailed emergency response guidelines for the commodity
- A complete train list showing all the rail cars in the train with those carrying hazardous materials highlighted for easy identification



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Besides getting real-time information on the contents of rail cars in a train, an emergency responder also has access to:

- Railroad emergency contact information
- Tank car diagrams
- Amtrak passenger car diagrams
- HazMat UN number search
- Chemical databases
- Water reactive chemicals list
- List of most common hazardous materials transported by CSX
- CSX unit train emergency response guide

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CSX Operation Respond

Currently 1100+ emergency responders in multiple states

Anticipate covering the entire CSX network by July 2015

- 23 states
- 21,000 miles of track
- 13,000 local jurisdictions

Two user levels – Advanced and Basic

- **Advanced** - access to all information and typically provided to chiefs and other incident command staff
- **Basic** – access to all information except train list and intended for basic firefighters

Further enhancements are planned for 2015 including

- Map-based list of sensitive receptors such as water intakes and watersheds

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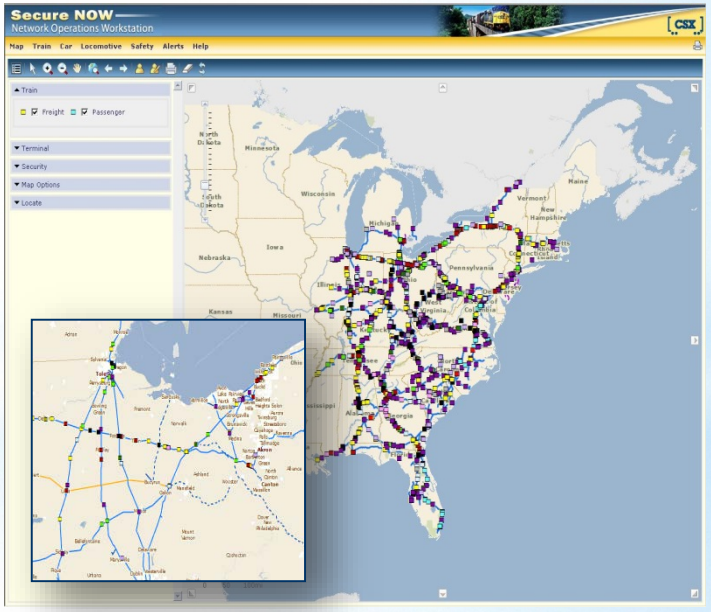
CSX Operation Respond

Builds upon other tools provided by CSX to emergency response agencies for providing information about the commodities transported through states and local communities by CSX

- *CSX SecureNOW* – a map-based geographical train and rail car monitoring tool that allows homeland security and emergency management centers to track CSX trains in real-time
  - In place in 20 of the 23 states where CSX operates
  - In place at U.S.DOT, TSA and CHEMTREC
- *CSX HazMat Density Reports* – for over 20 years CSX has been providing detailed hazmat density reports to local community emergency response and planning officials



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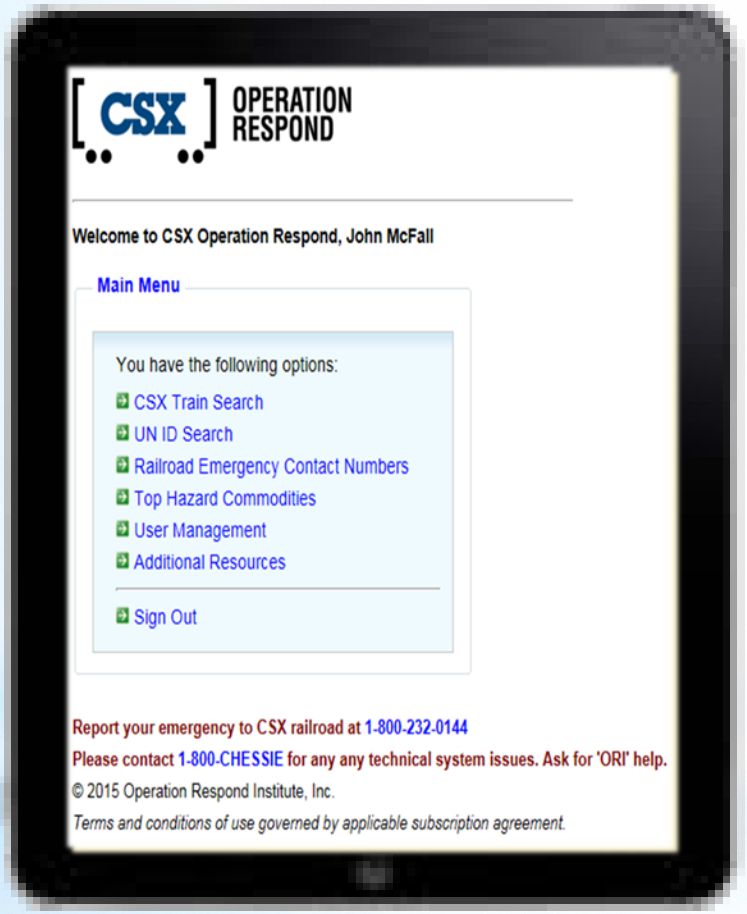

Main Menu

- ✓ Train Search
- ✓ UN ID Search
- ✓ Load/Empty Status
- ✓ Railroad Emergency Numbers
- ✓ Top Hazard Commodities
- ✓ User Management
- ✓ Additional Resources

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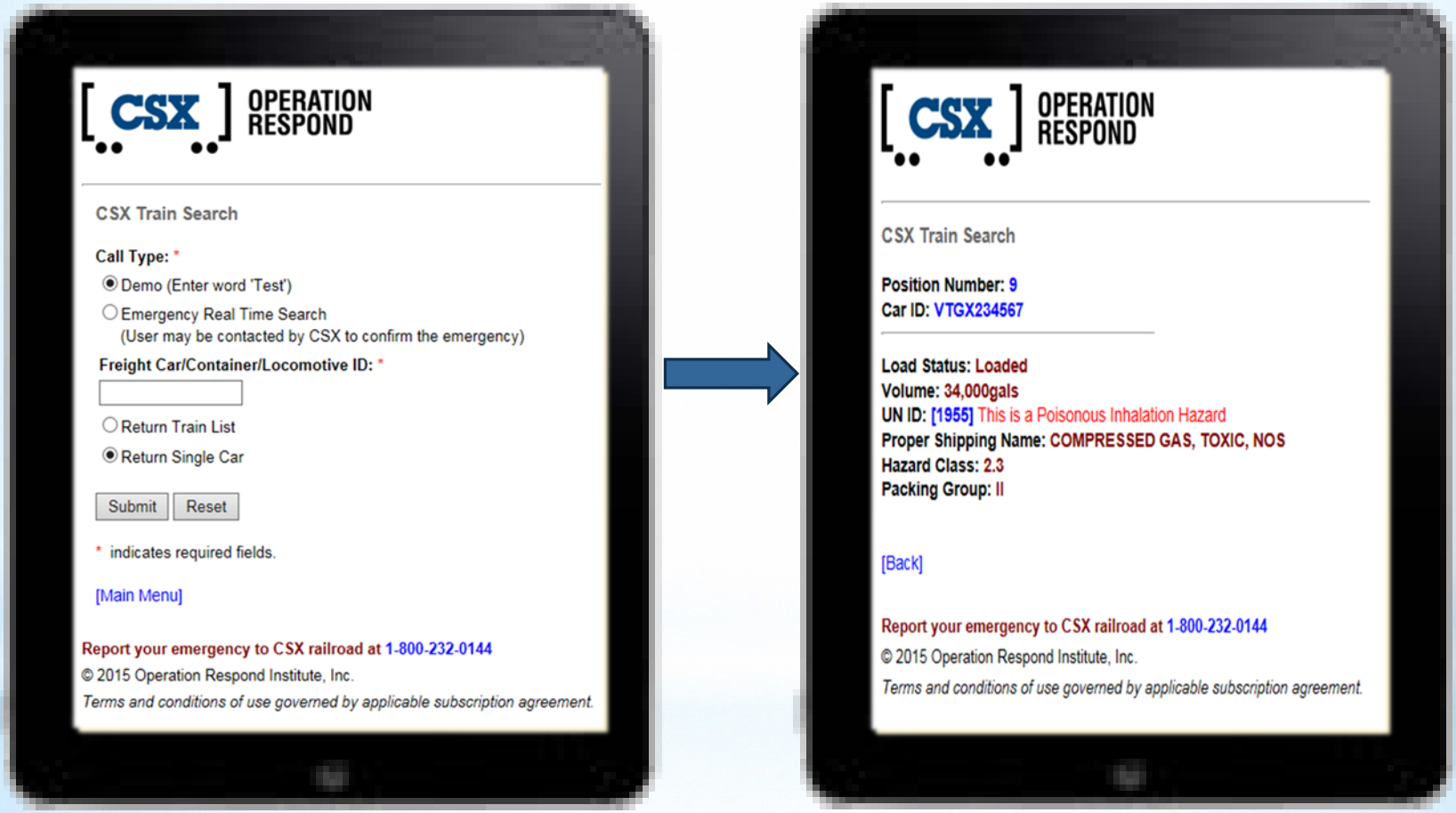
Single Railcar Search



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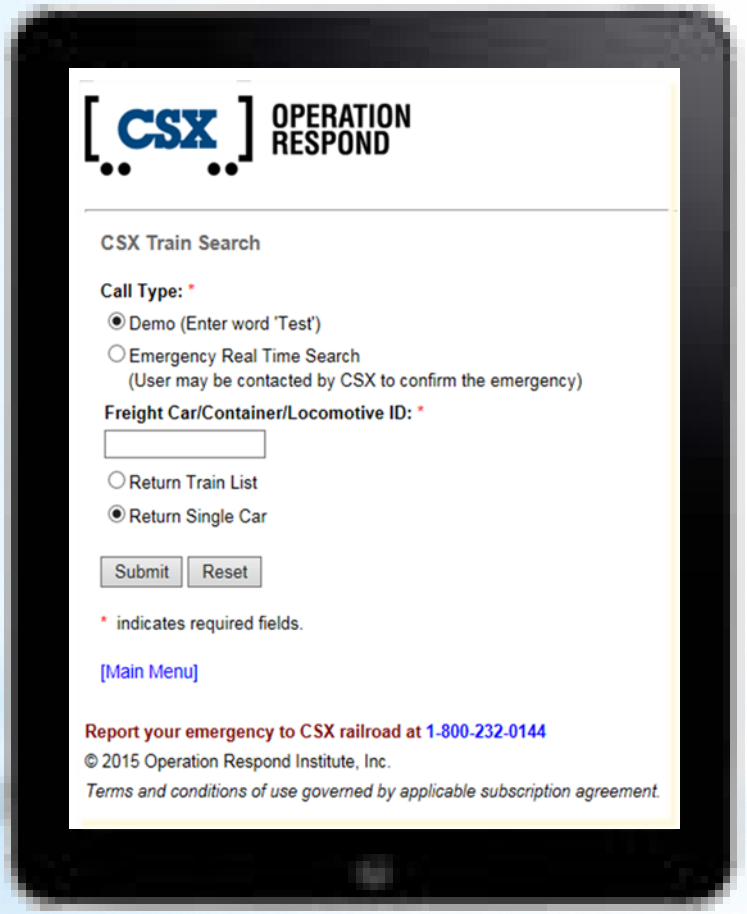
Train List Search (Advanced Users)



Train List Search Results

- ✓ Entire Train Consist
- ✓ Car Sequence Order
- ✓ Load/Empty Status
- ✓ Railcar ID Number
- ✓ Color Coded HazMat ID
  - White – Non HazMat
  - Red – HazMat
  - Red/Gold – TIH/PIH
- ✓ HazMat Classification

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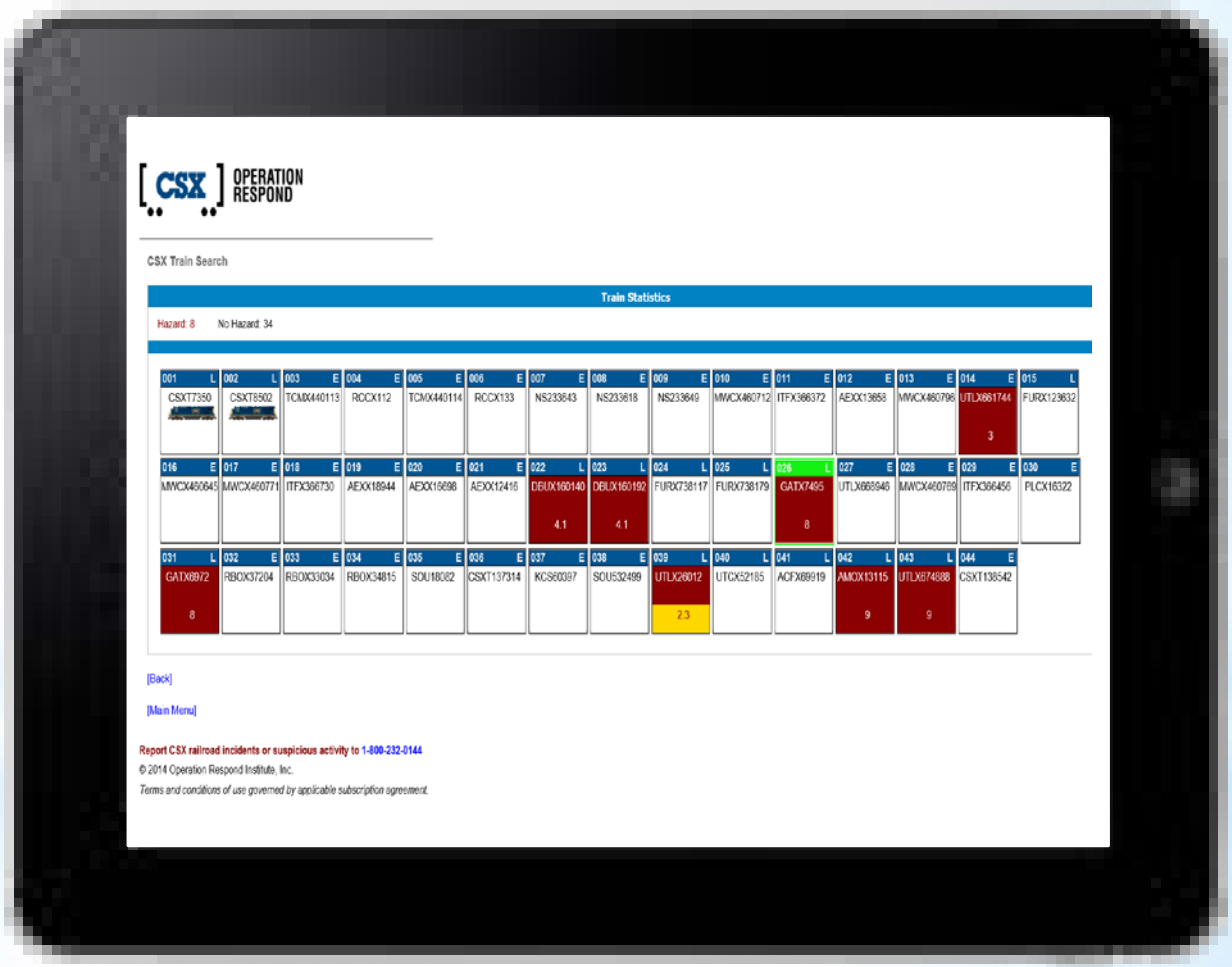
Train List Search (Advanced Users)

Each box links to railcar contents page

HazMat cars easy to locate

- White - Non HazMat
- Red - HazMat
- Red/Gold - TIH/PIH



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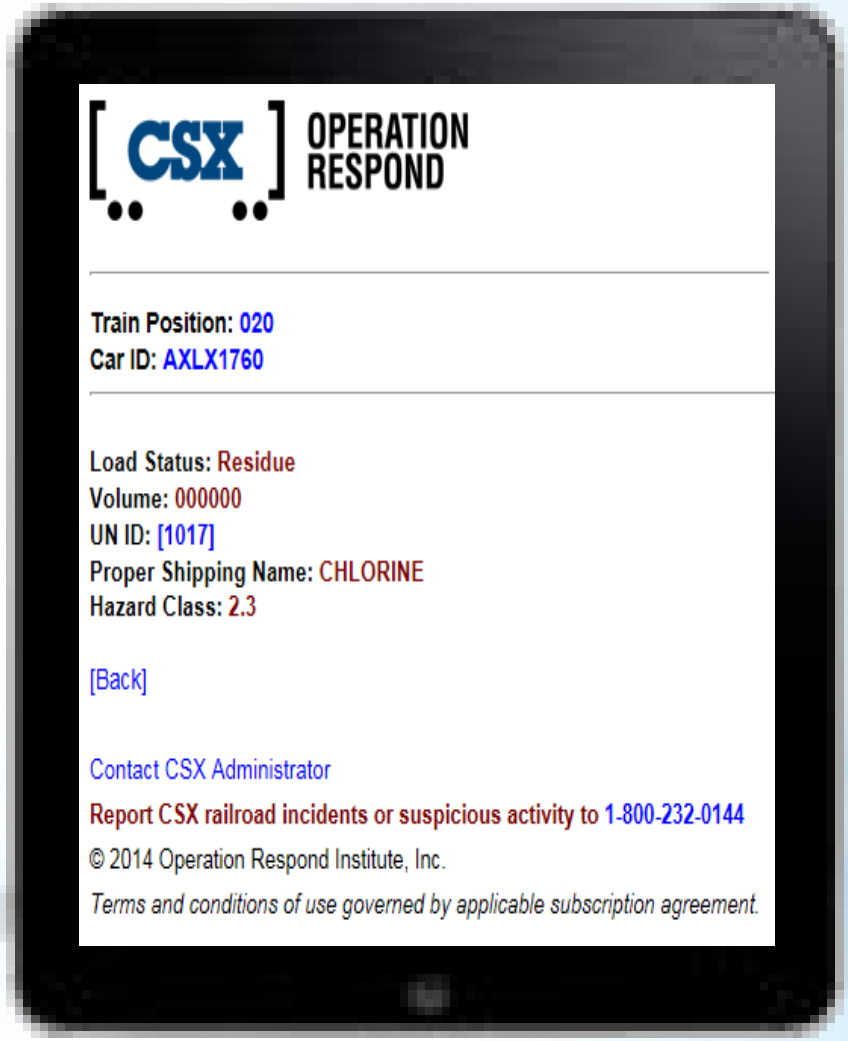
Train List Search (Advanced Users)

Railcar Contents

- ✓ Train Position
- ✓ Car ID
- ✓ Load Status
- ✓ Volume
- ✓ UN ID# (link)
- ✓ Commodity
- ✓ Hazard Class



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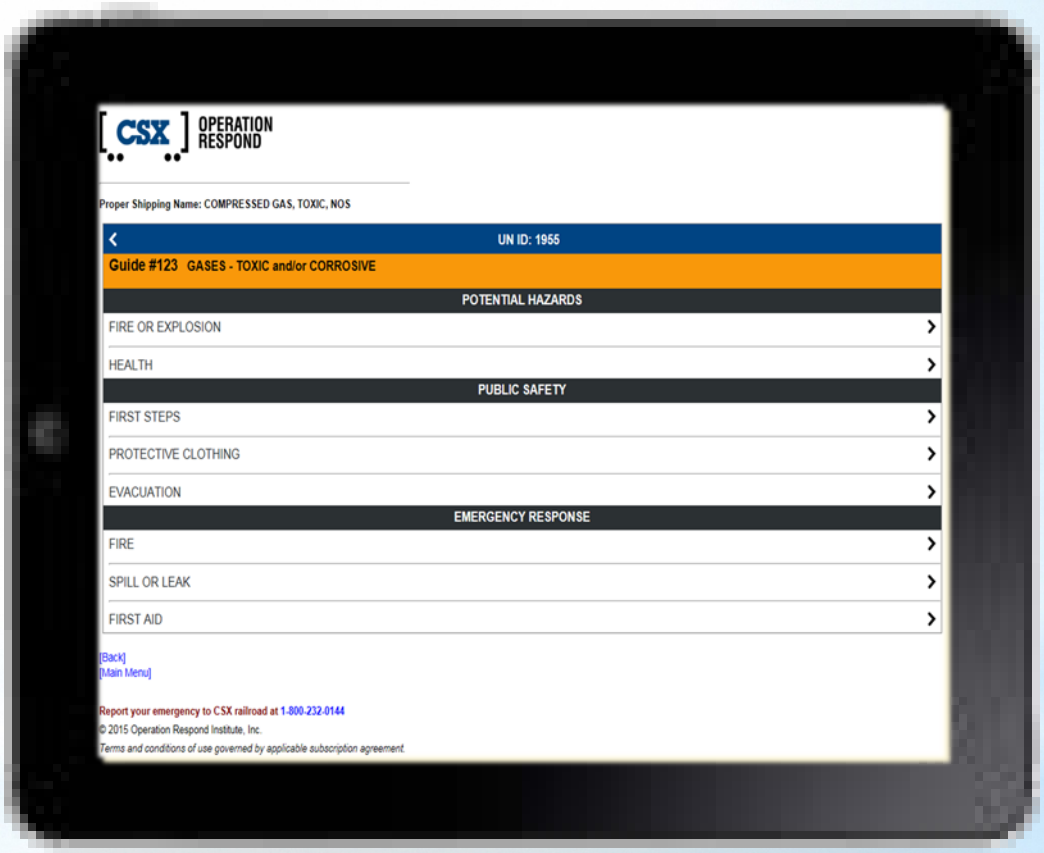
UN ID Number Search

- ✓ UN ID Number
- ✓ NAERG Number
- ✓ Commodity
- ✓ Protective Actions



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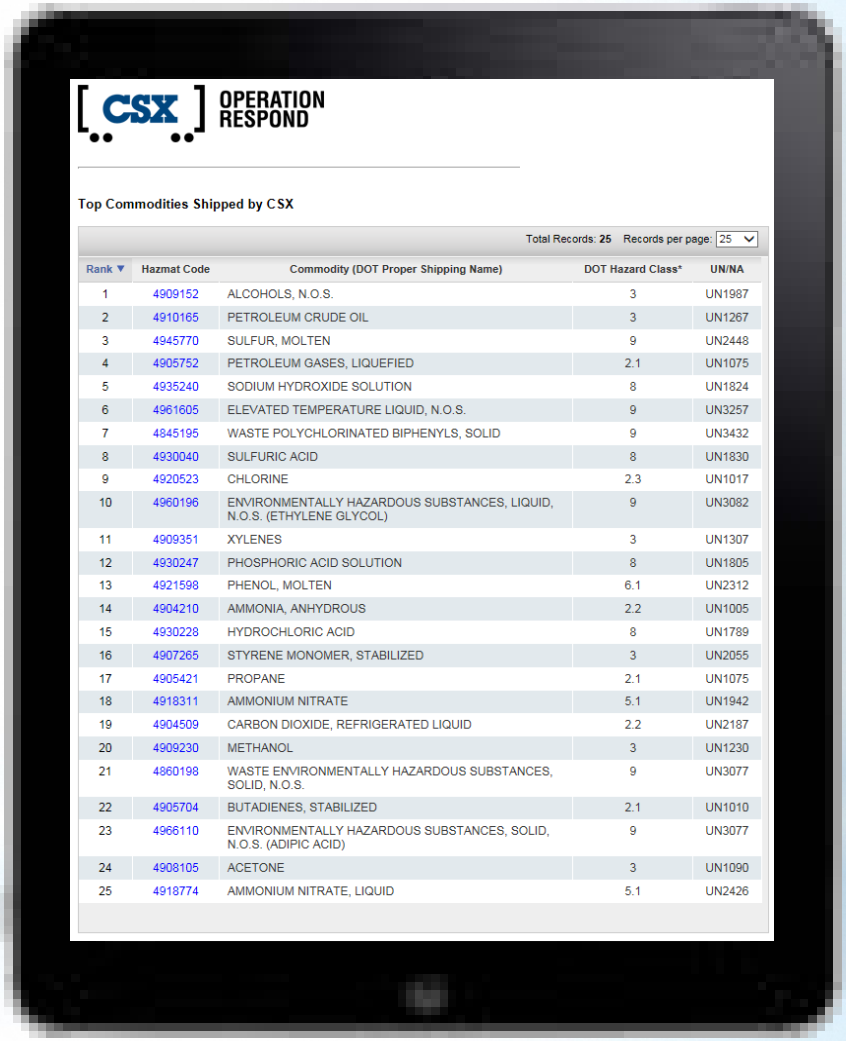
CSX Top 25 Hazard Commodities

- ✓ Linked to AAR HazMat Database
- ✓ Commodity
- ✓ Hazard Class
- ✓ UN Number



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Top Commodities Shipped by CSX

Total Records: 25 Records per page: 25

Rank	Hazmat Code	Commodity (DOT Proper Shipping Name)	DOT Hazard Class*	UN/NA
1	4909152	ALCOHOLS, N.O.S.	3	UN1987
2	4910165	PETROLEUM CRUDE OIL	3	UN1267
3	4945770	SULFUR, MOLTEN	9	UN2448
4	4905752	PETROLEUM GASES, LIQUEFIED	2.1	UN1075
5	4935240	SODIUM HYDROXIDE SOLUTION	8	UN1824
6	4961605	ELEVATED TEMPERATURE LIQUID, N.O.S.	9	UN3257
7	4845195	WASTE POLYCHLORINATED BIPHENYLS, SOLID	9	UN3432
8	4930040	SULFURIC ACID	8	UN1830
9	4920523	CHLORINE	2.3	UN1017
10	4960196	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (ETHYLENE GLYCOL)	9	UN3082
11	4909351	XYLENES	3	UN1307
12	4930247	PHOSPHORIC ACID SOLUTION	8	UN1805
13	4921598	PHENOL, MOLTEN	6.1	UN2312
14	4904210	AMMONIA, ANHYDROUS	2.2	UN1005
15	4930228	HYDROCHLORIC ACID	8	UN1789
16	4907265	STYRENE MONOMER, STABILIZED	3	UN2055
17	4905421	PROPANE	2.1	UN1075
18	4918311	AMMONIUM NITRATE	5.1	UN1942
19	4904509	CARBON DIOXIDE, REFRIGERATED LIQUID	2.2	UN2187
20	4909230	METHANOL	3	UN1230
21	4860198	WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.	9	UN3077
22	4905704	BUTADIENES, STABILIZED	2.1	UN1010
23	4966110	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (ADIPIC ACID)	9	UN3077
24	4908105	ACETONE	3	UN1090
25	4918774	AMMONIUM NITRATE, LIQUID	5.1	UN2426

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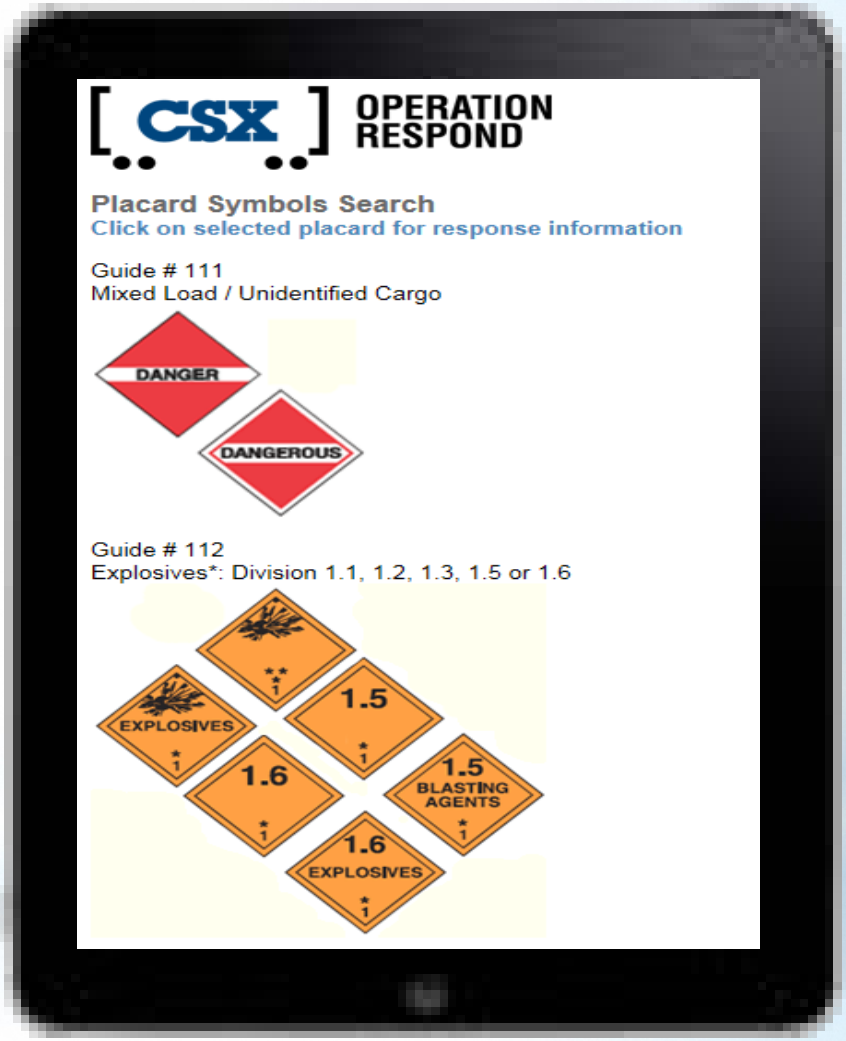
Placard Symbols

- ✓ NAERG Number
- ✓ Contents
- ✓ HazMat Information



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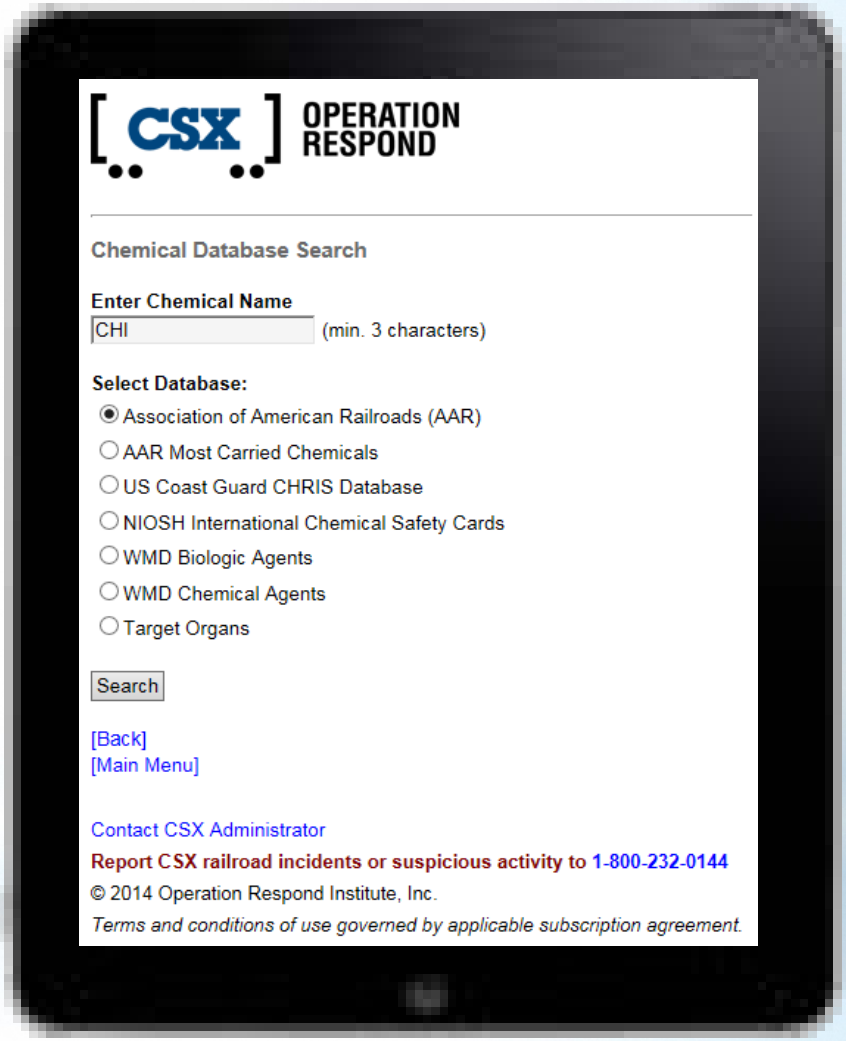
Chemical Databases

- ✓ Searches 7 databases
- ✓ UN ID Number
- ✓ Commodity Name
- ✓ HazMat Class
- ✓ Content Description
- ✓ HazMat Information



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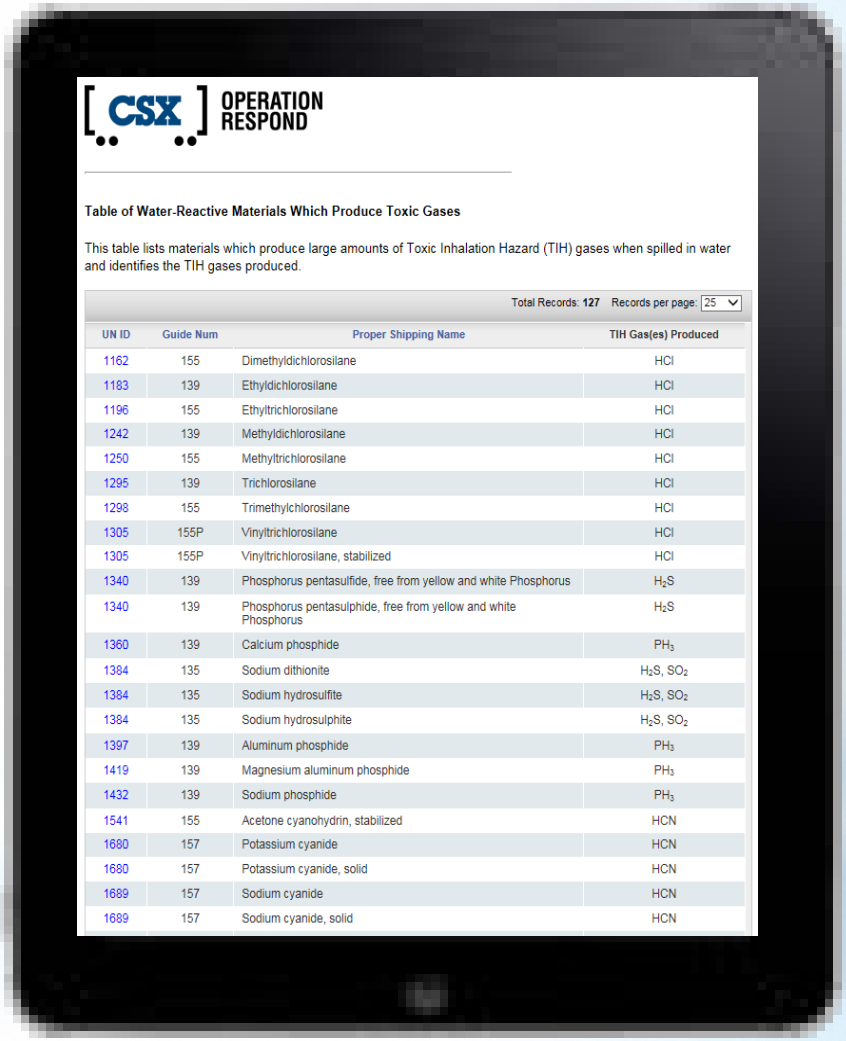
Water Reactive Chemical List

- ✓ UN ID Number
- ✓ Guide Number
- ✓ Commodity Name
- ✓ TIH (Gas) Produced



CSX OPERATION RESPOND

Table of Water-Reactive Materials Which Produce Toxic Gases

This table lists materials which produce large amounts of Toxic Inhalation Hazard (TIH) gases when spilled in water and identifies the TIH gases produced.

Total Records: **127** Records per page: 25

UN ID	Guide Num	Proper Shipping Name	TIH Gas(es) Produced
1162	155	Dimethyldichlorosilane	HCl
1183	139	Ethyldichlorosilane	HCl
1196	155	Ethyltrichlorosilane	HCl
1242	139	Methyldichlorosilane	HCl
1250	155	Methyltrichlorosilane	HCl
1295	139	Trichlorosilane	HCl
1298	155	Trimethylchlorosilane	HCl
1305	155P	Vinyltrichlorosilane	HCl
1305	155P	Vinyltrichlorosilane, stabilized	HCl
1340	139	Phosphorus pentasulfide, free from yellow and white Phosphorus	H_2S
1340	139	Phosphorus pentasulphide, free from yellow and white Phosphorus	H_2S
1360	139	Calcium phosphide	PH_3
1384	135	Sodium dithionite	H_2S, SO_2
1384	135	Sodium hydrosulfite	H_2S, SO_2
1384	135	Sodium hydrosulphite	H_2S, SO_2
1397	139	Aluminum phosphide	PH_3
1419	139	Magnesium aluminum phosphide	PH_3
1432	139	Sodium phosphide	PH_3
1541	155	Acetone cyanohydrin, stabilized	HCN
1680	157	Potassium cyanide	HCN
1680	157	Potassium cyanide, solid	HCN
1689	157	Sodium cyanide	HCN
1689	157	Sodium cyanide, solid	HCN

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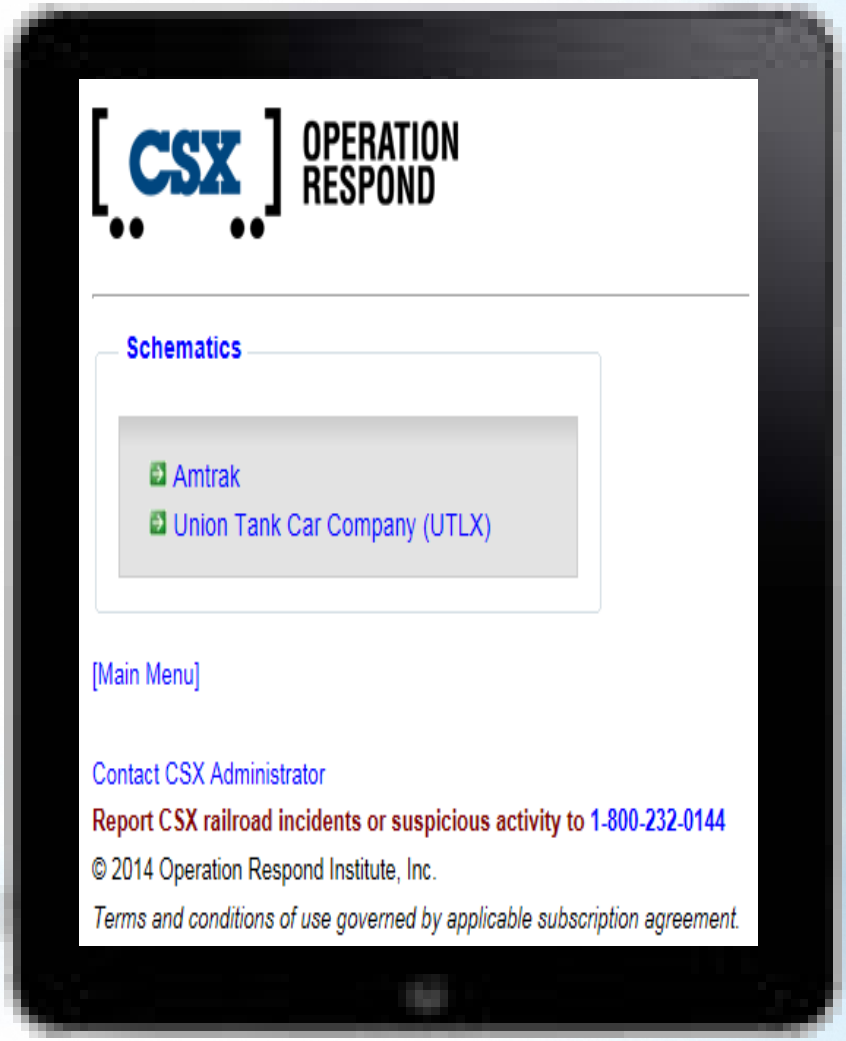
Schematics

- ✓ Amtrak Passenger Cars
- ✓ Tank Cars



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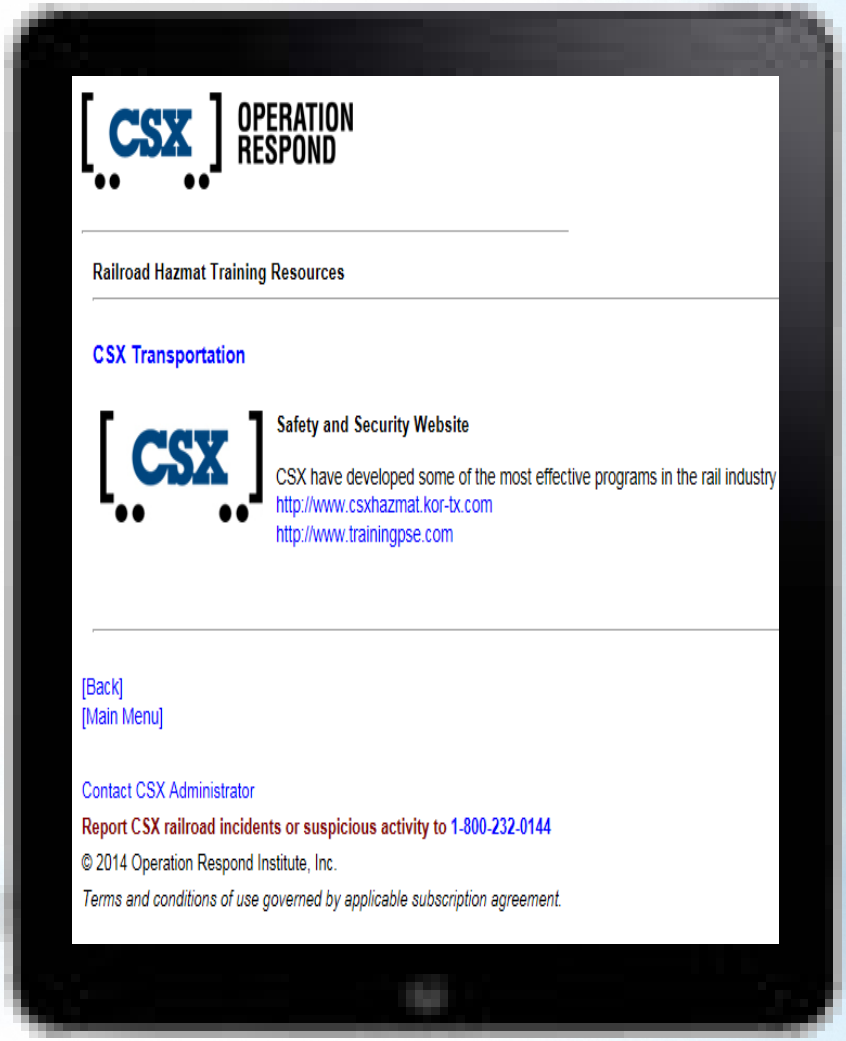
CSX HazMat Training Resources

- ✓ **Computer-based training**
- ✓ **Self-study training**
- ✓ **Reference guides**
- ✓ **Face-to-face training**



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CSX Unit Train Guide

How tomorrow moves

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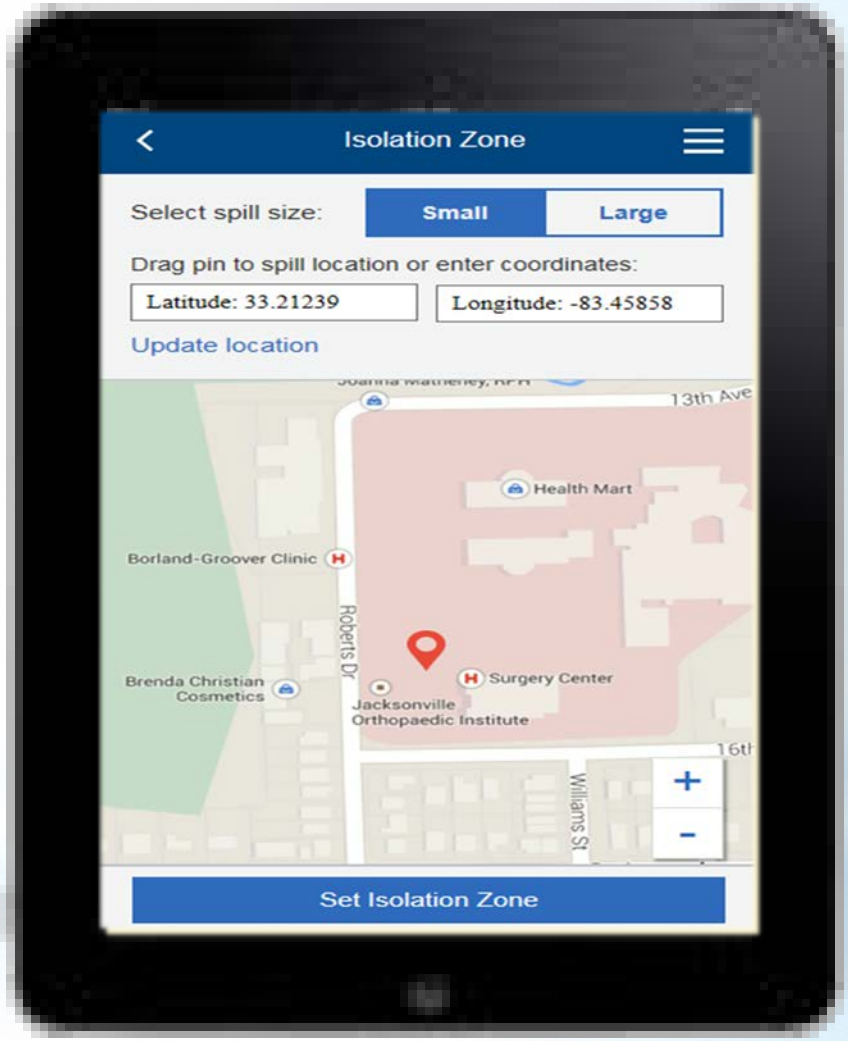
2015 Enhancements

- ✓ **Isolation Zone**
  - ✓**Based on Geo Location**
  - ✓**Railcar Commodity**
  - ✓**Spill Size (Small or Large)**



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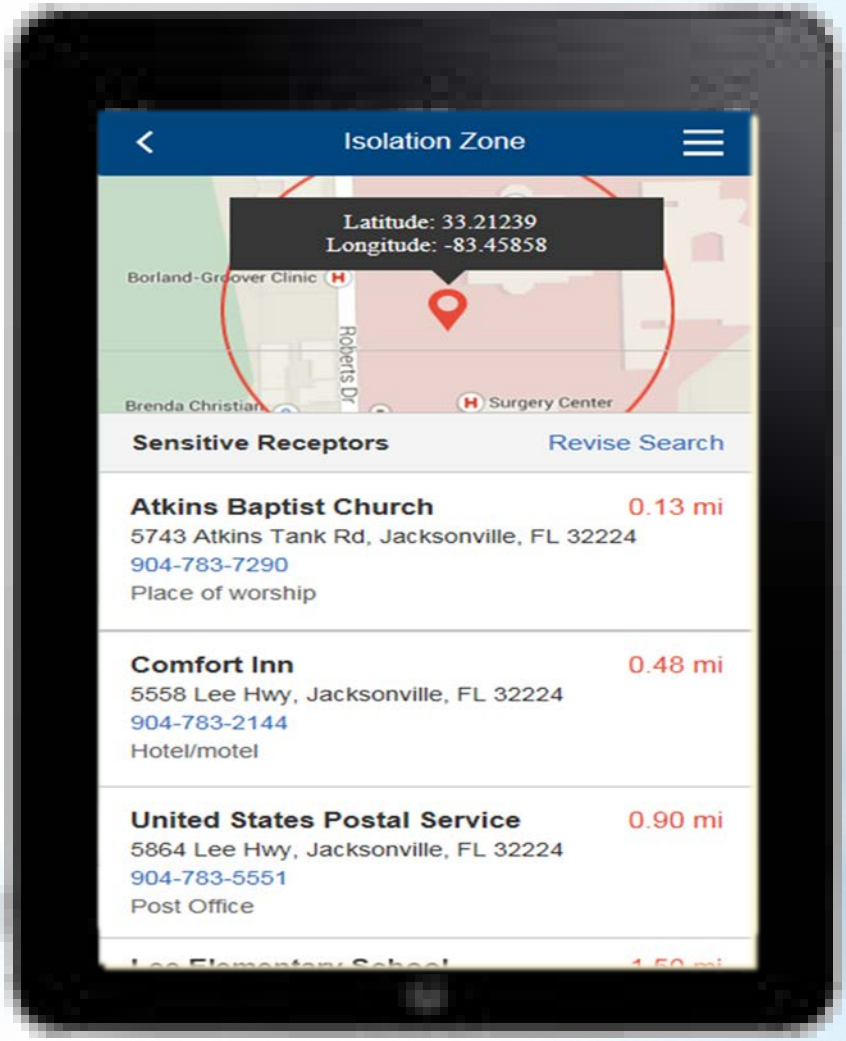
Set Isolation Zone

- ✓**Provides Sensitive Receptors within the isolated area**



CSX Operation Respond

For more information contact:

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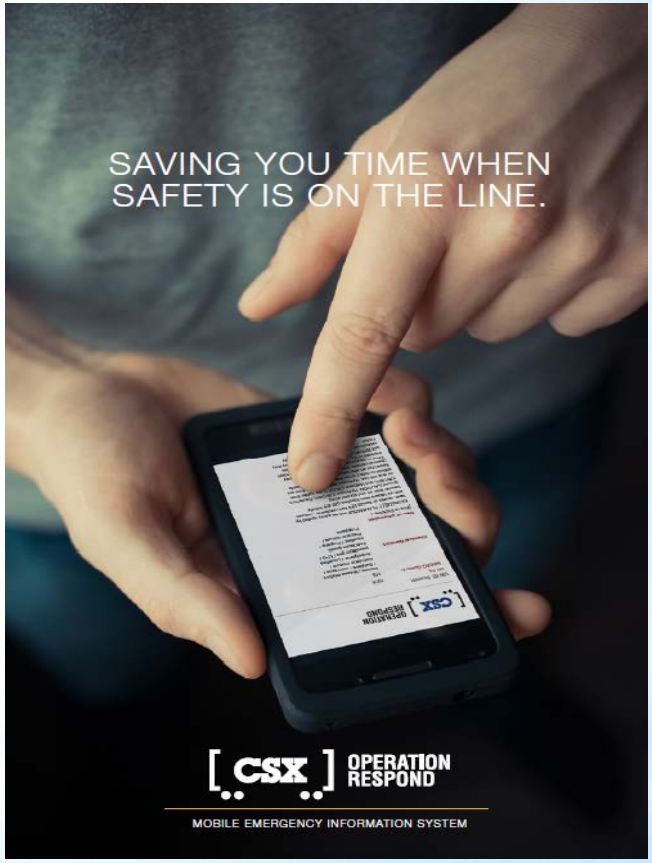
John_McFall@csx.com
operationrespond@csx.com



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The right tool,
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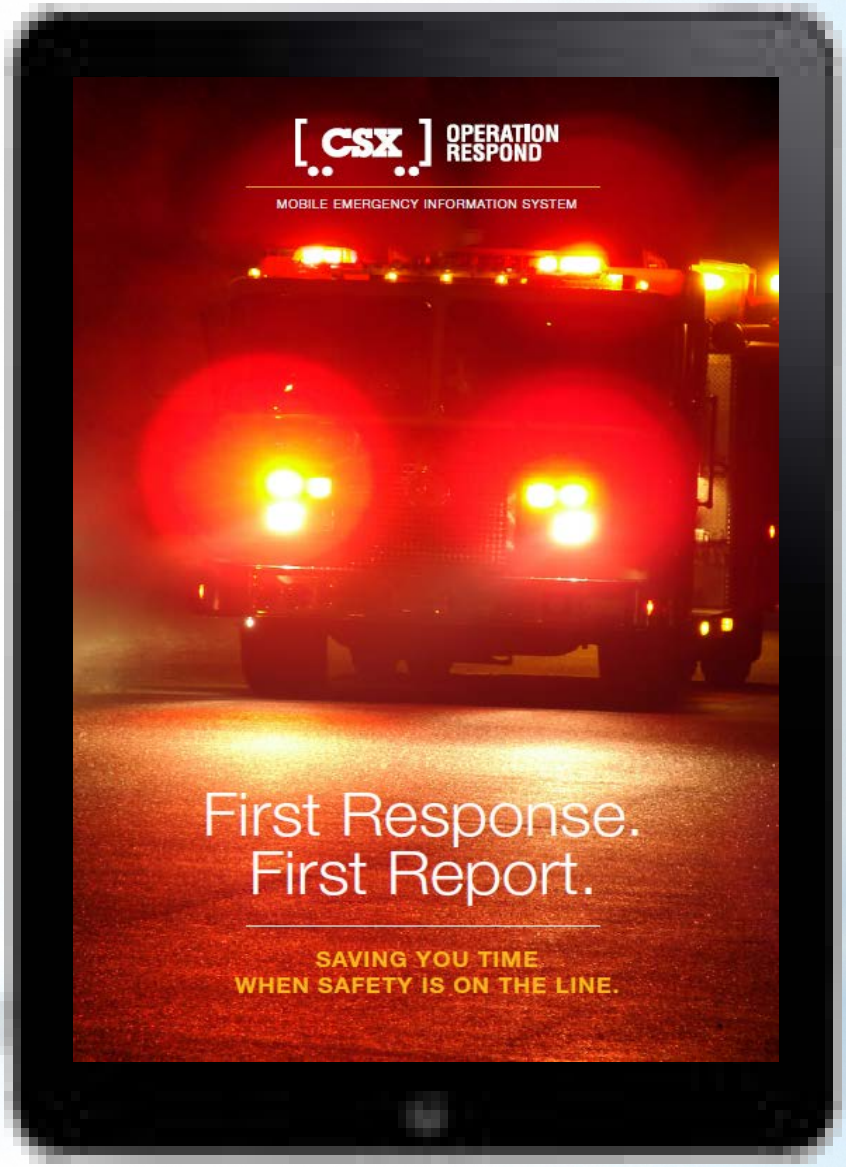

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