



# BNSF Hazmat Webinar Planning and Initial Size-up

PATRICK BRADY GENERAL DIRECTOR HAZMAT SAFETY

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## Webinar - Planning and Initial Size-up

- Webinar is being recorded. Recording will be posted on BNSFHazmat.com
- Introductions
- Survey/Certificates
- Agenda
  - Overview on BNSF
  - Safety considerations
  - Pre-Planning for railroad hazmat incidents
  - Conducting an initial "Size-Up"
  - Answering previously submitted questions
  - Time Permitting Answering your questions submitted via chat





## Who and What We Are

- 33,400 Miles of Track
- ~32,000 employees
- Operating in 28 States & 3 Canadian Provinces

~8,000 Locomotives

- Operating approximately 1,600 trains per day
- 1.2 Million Hazardous Material Shipments in 2023
- Capital Investment of \$4 Billion in 2024
- BNSF can move 1-ton of freight approximately 500 miles on 1-gallon of fuel





#### HAZMAT Manager Region Map





#### **BNSF HazMat Shipments**

Intermodal or Non-Bulk Manifest / Bulk 86% 14% A-La COSCO UTLX 08072 ~1.2M Total HazMat shipments in 2023

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#### **BNSF Hazardous Material Stats**





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## 2023 Top 20 HazMat's Transported by BNSF in Tank Cars

#### 94% of total bulk shipments

<u>UN Code</u>	<u>Haz</u> <u>Class</u>	Proper Shipping Name	<u>ERG</u>	<u>Residue Car</u>	Loaded Car
1170/1987/3475	3	ALCOHOLS, N.O.S./ETHANOL//ETHANOL AND GASOLINE MIXTURES	127	117550	112977
1267	3	PETROLEUM CRUDE OIL	128	93096	91618
1075	2.1	LIQUEFIED PETROLEUM GAS	115	89597	83720
1202/1996	3/CL	DIESEL FUEL/FUEL OIL	128	64225	56959
3257	9	ELEVATED TEMPERATURE LIQUID, N.O.S.	128	44581	40493
1203	3	GASOLINE	128	19914	16649
1830	8	SULFURIC ACID	137	9215	9528
1824	8	SODIUM HYDROXIDE SOLUTION	154	6695	8353
3082	9	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.	171	5985	6341
3077	9	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.	171	6578	6644
1789	8	HYDROCHLORIC ACID	157	7743	6325
2448	9	SULFUR, MOLTEN	133	6071	5886
1993	CL	COMBUSTIBLE LIQUID, N.O.S.	128	5472	5214
1230	3	METHANOL	131	4971	4643
1268	3/CL	PETROLEUM DISTILLATES, N.O.S.	128	4016	3492
2055	3	STYRENE MONOMER, STABILIZED	128	3660	3488
3256	3	ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S.	128	2730	2564
2426	5.1	AMMONIUM NITRATE, LIQUID	140	2359	2324
1017	2.3	CHLORINE	124	2372	2308
1301	3	VINYL ACETATE, STABILIZED	129	2271	2242



#### BNSF TIH/PIH vs All HazMat Loads

#### Loaded HazMat Cars (Non-Intermodal)





## Preplanning for a Rail Hazmat Emergency

**BNSFHAZMAT** 



#### What Railroads Are In Your Area/Do You Know Whose Track It Is?





### **Rail Crossing Information**

Call the railroad and report your location and situation





#### Information at Your Fingertips



#### **Rail Crossing Locator (FRA)**

(iOS and Android Devices)

- Emergency Notification
- Railroad Owner
- Crossing ID
- Milepost
- Speed Limits
- Collision Reports







#### Federal Railroad Administration (FRA) Geographic Information System (GIS)

#### **Google Search = FRA GIS**





#### Federal Railroad Administration (FRA) Geographic Information System (GIS)





#### What are the Hazardous Materials that are being Transported via Rail?

### **Step 1 - Request a Hazmat Traffic Flow Report**

#### **BNSF = www.BNSFHazmat.com**





## Hazmat Traffic Flow Reports

- Security Sensitive Information (SSI) Only provided to Emergency planning and response organizations for the expressed purpose of emergency and contingency planning
- Type of Reports
  - Specific Track
  - City
  - County
  - State
- Time Component
  - Quarter
  - Last 12 Months
- Format Excel Spreadsheet





### Hazmat Traffic Flow Reports

#### Step 2 - Analyze the data

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<u>SENSITIV</u>	E SECURITY	INFORMATION (SSI) AND TRADE SECRET/B	USINESS C	ONFIDEN	TIAL INFORMA	TION - DO NO	OT DISCLOSE		
STCC	UN/NA ID	Proper Shipping Name	ERG	DOT Haz Class	Residue Car	Loaded Car	Residue Intermodal	Loaded Intermodal	Total Loaded
4909152	1987	ALCOHOLS, N.O.S.	127	3	13117	12682	0	0	12682
4950130	0	FAK-HAZARDOUS MATERIALS	0		0	0	1	2795	2795
4910165	1267	PETROLEUM CRUDE OIL	128	3	2447	2546	0	0	2546
4961605	3257	ELEVATED TEMPERATURE LIQUID, N.O.S.	128	9	1637	2082	0	0	2082
4909159	1170	ETHANOL	127	3	1743	1718	0	0	1718
4909230	1230	METHANOL	131	3	135	1491	0	0	1491
4905431	1075	PETROLEUM GASES, LIQUEFIED	115	2.1	13	1465	0	0	1465
4910240	1170	ETHANOL	127	3	1413	1232	0	0	1232
4907270	1301	VINYL ACETATE, STABILIZED	129	3	873	864	0	0	864
4905421	1075	PROPANE	115	2.1	780	772	0	0	772
4906333	1202	DIESEL FUEL	128	3	630	675	0	0	675
4935240	1824	SODIUM HYDROXIDE SOLUTION	154	8	631	650	0	0	650
4960189	3082	ENVIRONMENTALLY HAZARDOUS SUBSTAN	171	9	938	643	0	0	643
4930040	1830	SULFURIC ACID	137	8	314	490	0	0	490
4908255	1265	PENTANES	128	3	355	430	0	3	433
4905430	1075	ISOBUTANE	115	2.1	21	396	0	0	396
4860130	3077	HAZARDOUS WASTE, SOLID, N.O.S.	171	9	0	363	0	0	363
4907265	2055	STYRENE MONOMER, STABILIZED	128	3	337	308	0	0	308
4910102	3065	ALCOHOLIC BEVERAGES	127	3	220	299	0	0	299
4932348	2693	BISULFITES, AQUEOUS SOLUTIONS, N.O.S.	154	8	267	297	0	0	297
4931303	2789	ACETIC ACID, GLACIAL	132	8	168	288	0	0	288
4930042	1832	SULFURIC ACID, SPENT	137	8	254	274	0	0	274



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#### Hazmat Traffic Flow Reports

#### Sorted by Total Loaded Shipments

		Sinpinents			1			Page	e 1 of 12
				DOT Haz			Residue	Loaded	Total
STCC	UN/NA ID	Proper Shipping Name	ERG	Class	Residue Car	Loaded Car	Intermodal	Intermodal	Loaded
4909152	1987	ALCOHOLS, N.O.S.	127	3	13117	12682	0	0	12682
4950130	0	FAK-HAZARDOUS MATERIALS	0		0	0	1	2795	2795
4910165	1267	PETROLEUM CRUDE OIL	128	3	2447	2546	0	0	2546
4961605	3257	ELEVATED TEMPERATURE LIQUID, N.O.S.	128	9	1637	2082	0	0	2082
4909159	1170	ETHANOL	127	3	1743	1718	0	0	1718
4909230	1230	METHANOL	131	3	135	1491	0	0	1491
4905431	1075	PETROLEUM GASES, LIQUEFIED	115	2.1	13	1465	0	0	1465
4910240	1170	ETHANOL	127	3	1413	1232	0	0	1232
4907270	1301	VINYL ACETATE, STABILIZED	129	3	873	864	0	0	864
4905421	1075	PROPANE	115	2.1	780	772	0	0	772
4906333	1202	DIESEL FUEL	128	3	630	675	0	0	675
4935240	1824	SODIUM HYDROXIDE SOLUTION	154	8	631	650	0	0	650
4960189	3082	ENVIRONMENTALLY HAZARDOUS SUBSTAN	171	9	938	643	0	0	643
4930040	1830	SULFURIC ACID	137	8	314	490	0	0	490
4908255	1265	PENTANES	128	3	355	430	0	3	433
4905430	1075	ISOBUTANE	115	2.1	21	396	0	0	396
4860130	3077	HAZARDOUS WASTE, SOLID, N.O.S.	171	9	0	363	0	0	363
4907265	2055	STYRENE MONOMER, STABILIZED	128	3	337	308	0	0	308
4910102	3065	ALCOHOLIC BEVERAGES	127	3	220	299	0	0	299
4932348	2693	BISULFITES, AQUEOUS SOLUTIONS, N.O.S.	154	8	267	297	0	0	297
4931303	2789	ACETIC ACID, GLACIAL	132	8	168	288	0	0	288
4930042	1832	SULFURIC ACID, SPENT	137	8	254	274	0	0	274
4905423	1075	BUTANE	115	2.1	35	268	0	0	268

#### 40,589 Hazmat Loads in the last 12 months



#### Hazmat Traffic Flow Reports – What is Freight All Kinds (FAK)

UN/NA ID	
Number	Proper Shipping Name
UN1956	COMPRESSED GAS, N.O.S.
UN1057	LIGHTERS
UN3268	AIR BAG MODULES
UN1219	ISOPROPANOL
UN0044	P RIMERS, CAP TYPE
UN0509	POWDER, SMOKELESS
UN1263	PAINT RELATED MATERIAL
UN1950	AEROSOLS
UN2794	BATTERIES, WET, FILLED WITH ACID
UN1170	ETHANOL
UN1993	FLAMMABLE LIQUIDS, N.O.S.
UN1090	ACETONE
UN1263	PAINT
UN3149	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED
UN1197	EXTRACTS, FLAVORING, LIQUID
UN3164	ARTICLES, PRESSURIZED PNEUMATIC
UN1760	CORROSIVE LIQUIDS, N.O.S.
UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.
UN1648	ACETONITRILE
UN1133	ADHESIVES







#### Hazmat Traffic Flow Reports

#### Sorted by Hazard Class – Poison Gases (DOT Division 2.3)

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4905748	1055	ISOBUTYLENE	115	2.1	2	23	0	0	23
4905424	1075	BUTANE	115	2.1	3	7	0	0	7
4905761	1063	METHYL CHLORIDE	115	2.1	5	7	0	0	7
4905753	1075	ISOBUTANE	115	2.1	3	3	0	0	3
4905704	1010	BUTADIENES, STABILIZED	116	2.1	0	1	0	0	1
4905540	1083	TRIMETHYLAMINE, ANHYDROUS	118	2.1	0	1	0	0	1
4905716	1030	1,1-DIFLUOROETHANE	115	2.1	3	0	0	0	0
4905439	1075	LIQUEFIED PETROLEUM GAS	115	2.1	9	0	0	0	0
4905414	1061	METHYLAMINE, ANHYDROUS	118	2.1	1	0	0	0	0
4905417	1075	PETROLEUM GASES, LIQUEFIED	115	2.1	9	0	0	0	0
4905781	1978	PROPANE	115	2.1	57	0	0	0	0
4905782	1077	PROPYLENE	115	2.1	5	0	0	0	0
4905784	1075	PROPYLENE	115	2.1	176	0	0	0	0
4905792	1086	VINYL CHLORIDE, STABILIZED	116	2.1	16	0	0	0	0
4904503	1951	ARGON, REFRIGERATED LIQUID	120	2.2	136	213	0	0	213
4904304	3159	1,1,1,2-TETRAFLUOROETHANE	126	2.2	15	18	0	0	18
4904210	1005	AMMONIA, ANHYDROUS	125	2.2	24	1	0	0	1
4904509	2187	CARBON DIOXIDE, REFRIGERATED LIQUID	120	2.2	26	1	0	0	1
4920353	1040	ETHYLENE OXIDE	119	2.3	62	64	0	0	64
4920523	1017	CHLORINE	124	2.3	93	53	0	0	53
4920355	1064	METHYL MERCAPTAN	117	2.3	20	47	0	0	47
4920508	1079	SULFUR DIOXIDE	125	2.3	0	1	0	0	1
4920359	1005	AMMONIA, ANHYDROUS	125	2.3	1	0	0	0	0
									165

165/40,589 X 100 = 0.41%



#### Hazmat Traffic Flow Reports

#### Sorted by Hazard Class – Flammable Liquid (DOT Class 3)

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				DOT Haz			Residue	Loaded	Т	ſotal
STCC	UN/NA ID	Proper Shipping Name	ERG	Class	Residue Car	Loaded Car	Intermodal	Intermodal	Ŀ	oaded
4920355	1064	METHYL MERCAPTAN	117	2.3	20	47	0		0	47
4920508	1079	SULFUR DIOXIDE	125	2.3	0	1	0		0	1
4920359	1005	AMMONIA, ANHYDROUS	125	2.3	1	0	0		0	0
4909152	1987	ALCOHOLS, N.O.S.	127	3	13117	12682	0		0	12682
4910165	1267	PETROLEUM CRUDE OIL	128	3	2447	2546	0		0	2546
4909159	1170	ETHANOL	127	3	1743	1718	0		0	1718
4909230	1230	METHANOL	131	3	135	1491	0		0	1491
4910240	1170	ETHANOL	127	3	1413	1232	0		0	1232
4907270	1301	VINYL ACETATE, STABILIZED	129	3	873	864	0		0	864
4906333	1202	DIESEL FUEL	128	3	630	675	0		0	675
4908255	1265	PENTANES	128	3	355	430	0		3	433
4907265	2055	STYRENE MONOMER, STABILIZED	128	3	337	308	0		0	308
4910102	3065	ALCOHOLIC BEVERAGES	127	3	220	299	0		0	299
4910191	1267	PETROLEUM CRUDE OIL	128	3	65	264	0		0	264
4908182	2370	1-HEXENE	128	3	92	256	0		0	256
4912280	3295	HYDROCARBONS, LIQUID, N.O.S.	128	3	3	192	0		0	192
4910256	1268	PETROLEUM DISTILLATES, N.O.S.	128	3	47	176	0		0	176
4909267	1274	N-PROPANOL	129	3	138	167	0		0	167
4908105	1090	ACETONE	127	3	92	150	0		0	150
4907230	1218	ISOPRENE, STABILIZED	130	3	121	131	0		0	131
4909348	1307	XYLENES	130	3	5	116	0		0	116
4908180	3475	ETHANOL AND GASOLINE MIXTURE	127	3	114	108	0		0	108
4909130	1120	BUTANOLS	129	3	90	91	0		0	91
4908119	1129	BUTYRALDEHYDE	129	3	82	91	0		0	91
4909268	1276	N-PROPYL ACETATE	129	3	79	91	0		0	91

25,303/40,589 X 100 = 62%



#### What are the Hazardous Materials that are being Transported via Rail?





### What are the Hazardous Materials that are being Transported via Rail?

#### Deeper Dives Could be used for 1<sup>st</sup> Responders Monthly Meetings

Alcohols, NOS/Denatured Alcohol/Ethanol

- Flammability is the primary hazard
  - Flash Point = 55°F
  - Flammable Range = 3.3% to 19%
- Vapors are heavier than air (Vapor Density = 1.59)
- Toxicity low (ingestion and inhalation)
- Air monitoring LEL meter and Photoionization Detector (PID)
- PPE Bunker Gear
- Fire fighting foam must be "Alcohol Resistant" (AR-AFFF)
- Miscible in water and still flammable at 50:50 water to ethanol





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## **Essential Resources**

#### www.BNSFHazmat.com





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## **Essential Resources**

#### www.BNSFHazmat.com







## **Essential Resources**

#### www.BNSFHAZMAT.com





> Google pla

App Store

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#### AskRail Video





#### AskRail - Single Car Lookup







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#### AskRail - View Response Guide







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#### AskRail – ERG Isolation Zone









#### AskRail – ERG Isolation Zone







Community focus is on training responders and providing interpretative information for a safe response

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### **Training - Community**



- In person training with or w/out Training Rail cars
- Web Based Training via BNSFHAZMAT.com
- Webinars







#### www.BNSFHazmat.com





This site is designed to be used by community first responders, our BNSF customers, contractors and internal hazmat team who work together to ensure hazmat safety at BNSF.

We value your dedication and support.

NEW TRAINING OPPORTUNITIES ADDED FOR FIRST RESPONDERS

ONLINE TRAINING

UPCOMING WEBINAR

JOIN OUR LIST TO RECEIVE UPDATES FROM BNSF HAZMAT

JOIN TODAY



#### HAZMAT Manager Region Map





## **Derailment Size-Up**





### Hazardous Materials Shipping Papers

#### Find the train crew!

- The conductor will have the most complete train list immediately available to you.
- Never trust paperwork found lying around on the floor of the locomotive or in an unoccupied caboose.
- All responding railroad officials should have copies of the train list or paperwork.
- If the train crew is disabled and unable to provide paperwork call the railroad 800-832-5452 and use ASKRAIL!

#### Use all the resources you have!





## Do a Good Size-Up! Start Gathering Information

- What are your wind and weather conditions?
- Any smoke or vapor visible?
- Any liquids or leaks visible?
- What can the train crew or rail personnel tell you?
- What kind of rail cars do you see?
- Use the train list and rail car reporting marks (License Plate)?





#### Reporting Marks (aka - License Plate)





#### Where Do You Start?



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## What Cars are Derailed

K K K K K K K K K K K K	EEEEE Y Y E Y Y EEE Y EEEE Y EEEEE Y	TTTT R T R T R T R T R	RRR A R A RRR AA R A R A R A	AA IIIII AAA I A I A I A IIIII	N N NN N N N N N NN N NN	
************ * See ar * thi	This Key Tr within desi pplicable timeta s train within	ain is sch gnated mun ble speed designated	eduled t icipal a restrict municip	o operate rea limits. ions while al area MP *********	operating limits	***********
TRNNBOO1 P M BRADY	***** T	rain Docum	ents ***	**	06/:	19/24 22:15CT
Train M TOLTEAS 1 H TULTEAS 1	.sa arrived KA 18 Unit Train	VIA OK Set ID:	06/19/2	4 0001 4 hr	8 min Lat	8
Head End Locos THP	Avl Dyn Dy THP Brk Br	r n LXA Cum k Egp Axl	Lo Tons Di	co Online I r Destin P	BIso M Cd From	lated To
BNSF 7977% 4400 BNSF 4759 4400 NS 4518% 5100 BNSF 7250% 4400 Total Incl DPUs	4400 8 EF+ Y 0 8 EF+ Y 4400 8 EF+ Y 8800 8800 gch	Y 6 N 12 18 Y 24 Actual THp eduled THp	210 SO 210 NR 216 NR 210 NR 846 T = 1.1 T = .0	UT TEAGUE TH TEAGUE TH TEAGUE TH TEAGUE (8800 THF	Y Y IC TULS N IC TULS Y 2/7512 tons	XK MADILI XK MADILI
Seq Num Init Number H	Car L Contents O Ind E Want Dy D	nline J estin T RA	Grs JP Ton	Consignee	Final De City	est Cum N ST Axl A
Elock TEA Setor 1 CHVX 290631 7 2 CHVX 283230 7 3 CPCX 205114 7 EI HOLD BOUTH	IT TEAGUE TX 197 L INDCHM H 197 L INDCHM H 197 L INDCHM H 197 L INDCHM H	OUNYD PT OUNYD PT OUNYD PT N	RA 128 S RA 115 S RA 127 S	TOLTTERMINA TOLTTERMINA TOLTTERMINA	HOUSTON HOUSTON HOUSTON	TX 28 TX 32 TX 36
4 NATX 252569 1 5 ATW 400644 0 US-MANIFES	198 L INDCHM H 306 L MTLSCR B 3T-ID 0442316220	CUNYD PT ROWTX KC 24	RA 125 S SM 137 I	TOLTTERMINA NTERCFORWAR	LAGRANGE	TX 40 NL 44
XM CUSTOMS DC 6 BNSF 523255 C US-MANIFES ITN# X2024	0613348310 OCUMENTATION INT H6 L MTLSCR B ST-ID 3982415920 10613342333	O MEXICO C ROWTX KC 24	OMPLETED SM 123 I	NTERCFORMAR	MONTERREY	NL 48
XM CUSTOMS DX 7 BNSF 518285 C US-MANIFES ITN# X2024	CUMENTATION INT 306 L MTLSCR E 37-ID 9043115920 40613342333	O MEXICO C ROWTX KC 24	OMPLETED SM 129 I	NTERCFORWAR	MONTERREY	NL 52
XM CUSTOMS DC 8 BNSF 518547 C US-MANIFES ITN# X2024	CUMENTATION INT 066 L MTLSCR B 37-ID 1053516320 10613348310	O MEXICO C ROWTX KC 24	OMPLETED SM 141 I	NTERCFORWAS	LAGRANGE	NL 56
XM CUSTOMS DO 9 BNSF 523301 C	CUMENTATION INT	O MEXICO C	OMPLETED	MERCEORNER		

US-MANIFEST-ID 5823016	32024 BL	ines	11.1	ro 17 Dera	ired ,		
ITN# X20240613348310 XM CUSTOMS DOCUMENTATION	INTO MEXI	CO COM	LET	HAzmat/F	iel 01]/s.	ulfu	Rai
DMIX 190662 T4F L CRNSYR	HOUSTO		143	SWEETEX	HOUSTON	TX	64
11 DMIX 191165 T4F L CRNSYR ITN# X20240613348310	HOUSTO		143	SWEETEX	HOUSTON	TX	68
12 TILX 170850 T4F L CRNSYR ITN# X20240613348310	HOUSTO		143	SWEETEX	HOUSTON	TX	72
13 VTGX 17193 T97 L CRNSYR ITN# X20240613348310	HOUSTO		131	SWEETEX	HOUSTON	TX	76
14 LRS 130402 BCF L CORNML ITN# X20240613348310	HOUNYD	PTRA	122	SGULPACLOGLL	HOUSTON	ТX	80
15 TR 19397 ACF L DRYBEA ITN# X20240613348310	HOUNAD	PTRA	140	JACINTINTLLC	HOUSTON	TX	84
16 CTCX 250786 T98 L HAZMAT ITN# X20240613348310	HOUNYD	PTRA	123	HOUSTOFUEOIL	HOUSTON	TX	88
N9 CLASS 9 MATERIAL	TDATEAR /m	CONTRACTOR OF STREET					
SSS ABI SH	IPMENT (T	WENTY)	***				
* HAZMAT ************************************		1 U1 9 FX T1 HJ	TNK N325 LQUIN JII: N= F1 NZMA	// 22939 7 // ELEVATED D, N.O.S. (FU I UEL OIL #6 F STCC 496161	GA TEMPERAT EL OIL) 7	URE	
RAIL CONSIGNEE MERCURIA ENERGY AMERIC 20 E GREENWAY PLAZA ST HOUSTON TX 77046	A LLC E 650	RJ HI 3 S WC	AIL S SIN 3 SCDS	SHIPPER NCLAIR REFINI DUTH 800 WEST CROSS UT 840	NG & MARK 87143	ETING	LL
Block Totals 16 Cars	16 Loads	0	Empt	ties 2098 Ton	s 962	Feet	
Block TEASY Setout TEAGUE TX 17 GATX 6740 T97 E HAZMAT ITN# X20240613348310 COMROSIVE	PASATX	PTRA	27	ECOSEROPERAT	HOUSTON	TX	92
DS DO NOT SPOT FOR LDG OT	HER THAN I	HAZARDO	DDS 1	LAST CONTAINE	D		
HAZMAT HAZMAT EMERGENCY CONTACT: 8004249300 SHIPPER CONTACT: CHEMTREC - 7	** * ** 17208	1 DB SU 8 PC RC DC TE	TNK (183) (LFUI ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU ) (SU (SU ) (SU ) (SU ) (SU ) (SU (SU ) (SU (SU (SU ) (SU (SU (SU (SU (SU (SU (SU (SU (SU (SU	// 0 : D // RESIDUE: RIC ACID DLFURIC ACID) P 7616 DLFURIC ACID F STCC 493004	LB LAST CON 96%	TAINE	Ð
RAIL CONSIGNEE ECO SERVICES OPERATION 8615 MANCHESTER ST HOUSTON TX 77012	S CORP	RA FF HÞ TY	IL S EEPO IY 90 ROME	SHIPPER DRT-MCMORAN T DS TYRONE MIN & NM 88065	YRONE MIN: E RD	ING L	LC
18 GATX 5635 T97 E HAZMAT TIN# X20240613348310 CM CORROSIVE	PASATX	PTRA	27	BCOSEROPERAT	HOUSTON	TX	96

- Line 10 (DMIX 190662) and line 18 (GATX 5635) are not derailed
- Lines 11-17 derailed (7 cars)
- Two Hazmat cars
  - 16 CTCX 250786 load of Fuel Oil
  - 17 GATX 6740 residue of sulfuric acid



#### Mobile Train List (MTR) / Consist





#### \*\*\*\*\*Asterisks\*\*\*\*\* Mean HazMat Shipment!





#### Example: Special Hazards





### **Crude Oil Train List**

	Head End Locomotives "Buffer" Car First Crude Oil Car	N       K       EEERE       Y       Y       TTTTT         K       X       E       Y       Y       T         KKK       EKE       Y       T       K         K       K       3       Y       T         K       K       SEEEE       Y       T         K       K       SEEEE       Y       T         Train       U       EPFFT30       16T       Arrived       SPOKAME       W         ENSF       6579       4400       0       8 EF+       Y       Y         Seq       Car <td< th=""><th>RERR AAA ICHIT N N R R A A J J NN N RRRR AAAAA T N N N R R A A J I N N N R R A A J I N NN ments ***** 01/31/14 08:40:04PT A 01/31/14 0813 0 hr 22 min Abead LOCO Onlite D TIsolated Tons Dir Destin F A Cd From To 210 WEST FIDALG N 210 WEST FIDALG N IC HAUYAR FIDAL (20) IPT = 1.0 (13200 HD/12640 tons) pT = 1.0 Grs Final Dest Cum HAJF Ton Consignee City ST Ax1 122 CRESTWMIDPAR EPPING ND 16 0 Emptics 122 Tons 54 Feet 135 TESORONN FIDALGO WA 20 NTY) &lt;&lt;&lt;</th></td<>	RERR AAA ICHIT N N R R A A J J NN N RRRR AAAAA T N N N R R A A J I N N N R R A A J I N NN ments ***** 01/31/14 08:40:04PT A 01/31/14 0813 0 hr 22 min Abead LOCO Onlite D TIsolated Tons Dir Destin F A Cd From To 210 WEST FIDALG N 210 WEST FIDALG N IC HAUYAR FIDAL (20) IPT = 1.0 (13200 HD/12640 tons) pT = 1.0 Grs Final Dest Cum HAJF Ton Consignee City ST Ax1 122 CRESTWMIDPAR EPPING ND 16 0 Emptics 122 Tons 54 Feet 135 TESORONN FIDALGO WA 20 NTY) <<<
44 Page 20 SELPPER CONTACT: CHEMIRKE CON22013 RAIL CONSTGNEE TESORO NORTHNEST CO N MARCHES POINT RD SELPPER CONTACT: CHEMIRKE CON22013 SAZMAT STOC 4910165 RAIL SHIPPER TESORO REFINING & MARKETING CO	44 Bace 20	* HAZMAT * ***********************************	UNI267 // PETROLEUM CRUDE OIL 3 PG I 9AZMAT STCC 4910165 RAIL SHIPPER TESORO REFINING & MARKETING CO

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### Example: Intermodal Train List

Typically, there are multiple shipments in each trailer or container

18	B BNSF 270768 QYO L WHEAT LONBEATPICA	275 AGENT LONBEATPI CA 198				
	KOCU 413357 K15 L WHEAT LONBTP	40C HYUNDAWERAID LONBEATFI CA B1				
	MSDU 757241 K15 E MTYTLR LONBTP	40C MEDITESHICOU LONBEATPI CA BI				
	DF3U 618495 K15 L WHEAT LONBTP	40C HYUNDAWBRAID LONBEATPI CA C1				
	MSDU 742887 K15 E MTYTLR LONBTP	40C MEDITESHICOU LONBEATPI CA CT				
	DFSU 662052 K15 L WHEAT LONBIP	40C HYUNDAWBRAID LONBEATPI CA D1				
	MSDU 739978 K15 E MTYTLR LONBIP	40C MEDITESHICOU LONBEATFI CA DT				
	TCNU 504331 K15 L WHEAT LONBTP	40C HYUNDAWBRAID LONBEATFI CA E1				
	MSDU 717968 K15 E MTYTLR LONBIP	40C MEDITESHICOU LONBEATPI CA ET				
	SEGU 604670 K15 L WHEAT LONBIP	40C HYUNDAWBRAID LONBEATPI CA AL				
	MSCU 508990 K15 E MTYTLR LONBIP	40C MEDITESHICOU LONBEATPI CA AT				
11	BUSF 238125 QYO L HAZMAT LONBEATFICA	326 AGENT LONBEATFI CA 210				
	CM CORROSIVE	L				
	CAIU 734826 K15 L WHEAT LONBTP	40C HYUNDAWBRAID LONBEATPI CA BL				
	KOCU 423977 KI5 L HAZMAI LONBIP	40C HYUNDAWBRAID LONBEATPI CA BT				
	CM CORROSIVE					
	<ul> <li>HAZMAT</li> <li>EMERGENCY CONTACT: 17035273897</li> <li>SHIPPER CONTACT: CCN 16160</li> <li>Adi Desc: (ERG GUIDE 154)</li> </ul>	14 TE // 17468 KG UN1760 // CORROSIVE LIQUID (DIHYDROGENHEXAFLUOROZIRCONATE2-) 8 PG II HAZMAT STCC 4936540				
	ACTUAL CONSIGNEE SUNGHONG S AND W CO 138 TEHERAN-RO GANGNAM-GU SEOUL RAIL CONSIGNEE HYUNDAI INTERMODAL LONG BEACH T PIER CA	ACTUAL SHIFPER CHEMETALL US INC 1100 TECHNOLOGY DR JACKSON MI 49201 RAIL SHIPPER HYUNDAI INTERMODAL LOGISTICS PARK CHIC IL				
	HDMU 476670 KG5 L WHEAT LONBIP	40C HYUNDAWBRAID LONBEATPI CA C1				
age 31	HMMU 608724 K15 L FAK LONBTP	40C HYUNDAWBRAID LONBEATPI CA CT				



#### "One" Car = BNSF 240825





#### "One" Car with 10 Trailers or Containers

Y	SFTZ	220566	V1R	E		PHOENI	48	T AGEN	Т	PH	IOENIX	K	AZ
Blo	ck Totals		3 Ca	rs		3 Loads	0 Emptie	es	362 T	ons		564	Feet
4 R R R R R R R R R	BNSF OOCL FSCU OOCL OOCL OOCL OOCL OOCL OOCL OOCL	240825 406738 485141 417649 281724 282556 285287 408628 478551 485527 425667	OYB K15 K1L K K1L K1L K1L K1L K1L K1L K1L	L L L L L L L L L L L	FAK FAK FAK LUBOIL FAK FAK FAK FAK FAK FAK FAK FAK	RICHCA RICHCA48C RICHCA48C RICHCA RICHCA RICHCA RICHCA RICHCA RICHCA40C RICHCA40C	226 AG 40C INT KCPRSDT 40C INC 48C ESC 48C MB 48 40C MA 40C OO OOCL OOCL	ENT RMW RICH CHSCSH CTRSPR MCARER C SCLMT RKVII CL RICH RICH	RICHM RICHM MOND RICHM RICHM S RICHM TDLV F RICHM RICHM HMOND HMOND	IOND IOND CA MOND MOND IOND RICHW MOND CA CA	CA CA BT CA CA CA CA IOND CA CA A1 AT	60 B1 C1 CT D1 CA E1 ET	DT

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#### Placards and Hazard Classes





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#### Tank Cars May Have Additional Markings





#### **Incident Notification Procedures**







#### HAZMAT Manager Region Map





### ICS and NIMS

BNSF hazardous material responders, operations supervisors and train crews will work within the Unified Incident Command





#### **Unified Command Model**





D LMT 19290018 87500KG LT WT 7010018 31800KG

99912

## Submitted Questions



## **Submitted Questions**

- When to consider evacuations? And with that, the initial distances? Each chemical is different, didn't know if there was a general distance to start with?
- Hazmat capabilities in my county
- Please discuss BNSF Emergency Operations Center's coordination and communication with local emergency management. Additionally, please address BNSF's participation in the Local Emergency Planning Committee (LEPC).
- Outline the way Law Enforcement can coordinate with Medical Providers (Hospitals) to best assist with the incident.
- What your incident command structure looks like, how we fit in and numbers to call in case of emergency and what type of response we can expect to get?





Unified Command Mode







## **Submitted Questions**

- What are the mistakes you have noticed done by fire departments prior to your arrival that you would like stopped or done better?
- When should a fire department put water on a locomotive fire? We recently had a locomotive fire and contacted BNSF during the incident on how to safely to put out the fire. After talking with them, we shut down the power by emergency shut off and then applied water to put out the fire. After watching the locomotive webinar, they said 4 to 5 times not to put water on a locomotive fire, which is it?
- With transportation of HazMat via rail, an explanation and example of the buffer system, and easy tips for identifying them.





## **Submitted Questions**

- Ability of train and/or tracks to conduct electricity from contact with a downed wire how far? how to protect the public upstream and downstream?
- Best apps to use to help with identification of contents and location of incident.
- When to use water and when not to use water on train fire.
- Ethanol and renewable diesel response considerations.
- Danger of creosote treated trestles that have caught fire?
- Hazard/HAZMAT response in rural areas that have a limited number of resources.
- Can I get a recording of this webinar? I would like to have it to let the crews that were not able to attend watch it.









## **Additional Questions?**

## **Complete Your Surveys**



