

TISKILWA ETHANOL DERAILMENT - 2011

IOWA INTERSTATE RAILROAD, LTD. (IAIS)

Rail Line

MP 122.4

Tiskilwa, Bureau County, IL



FEATURES







UNIFIED COMMAND









NARAC MODEL

Not For Public Dissemination

1 Hr Avg Air Conc. at 10/07/2011 17:00:00 UTC

12-Hour Forecast Automated Report - Actual Release

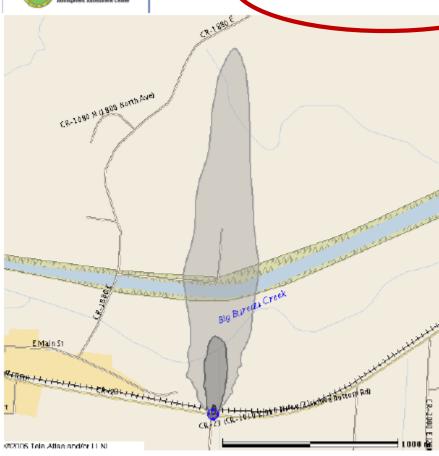
45.957 m2

>1.00E-7

2.099 m

585.411 m2

0



Map Size: 2.5 km by 2.5 km Id: Production.rcE19111.rcC1

NARAC Operations: (onDuty Assessor); narac@llnl.gov; 925-424-6465

Requested by: {Connee Foster (mgr); NARAC -- Operation; 202-282-9369; foster5@llnl.gov}

Approved by: {IMAAC Operations Coordinator, IMAAC; 925-424-8485}

Description	(g/m3) Extent Area	Population
No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-5 54.3 m 1,200 m2	0
No guidelines specified. Possibly contaminated	>1.00E-6	0

Effects and Actions

Note: Areas and counts in the table are cumulative. Population Source = LandScan USA V1.0.

Effects or contamination from October 07, 2011 16:00 UTC to October 07, 2011 17:00 UTC

Release Location: 41.289058 N, 89.485233 W

No guidelines specified. Possibly contaminated

area. Use to confirm with monitoring surveys.

Material: particulate

Generated On: October 07, 2011 16:12 UTC

Model: ADAPT/LODI

Comments:

Hypothetical release

of 1 kg starting at

10/07/2011 16:00:00 UTC for 12 hr

gridded met

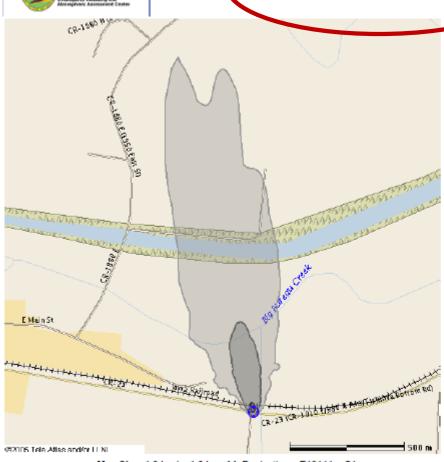


NARAC MODEL

Not For Public Dissemination

1 Hr Avg Air Conc. at 10/08/2011 00:00:00 UTC

12-Hour Forecast Automated Report - Actual Release



LI NI			
Map Size:	1.9 km by 1.9 km	Id: Production.rcE19111.rcC1	

NARAC Operations: (onDuty Assessor); narac@llnl.gov; 925-424-6465 Requested by: {Connee Foster (mgr); NARAC -- Operation; 202-282-9369; foster5@llnl.gov} Approved by: {IMAAC Operations Coordinator, IMAAC; 925-424-6465}

Effects and Actions								
Description	(g/m3) Extent Area	Population						
No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-5 44.4 m 800 m2	0						
No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-6 398 m 38,267 m2	0						
No guidelines specified. Possibly contaminated area. Use to confirm with monitoring surveys.	>1.00E-7 1,593 m 498,723 m2	0						

Note: Areas and counts in the table are cumulative. Population Source = LandScan USA

Effects or contamination from October 07, 2011 23:00 UTC to October 08, 2011 00:00 UTC

Release Location: 41.289058 N, 89.485233 W

Material: particulate

Generated On: October 07, 2011 16:12 UTC

Model: ADAPT/LODI

Comments:

Hypothetical release

of 1 kg starting at

10/07/2011 16:00:00 UTC for 12 hr

gridded met



MSDS SPILLED PRODUCT

Denatured with 2-5% 'Natural Gasoline'

= OIL (OPA funding)

Starting to see undenatured (pure) product shipments



MATERIAL SAFETY DATA SHEET

(Complies with 29 CFR 1910.1200)

PRODUCT NAME:

FUEL ETHANOL

ADM PRODUCT CODE:

017609

SYNONYMS:

Denatured Ethanol, Ethyl Alcohol - Denatured

CHEMICAL FORMULA:

C₁H₄OH

SECTION I

MANUFACTURER:

Archer Daniels Midland

4666 Faries Parkway

Decatur, IL 62526

EMERGENCY NUMBER:

(800) 424-9300 Chemtrec (USA)

(217) 424-5200 ADM Corporate

INFORMATION:

(888) 371-4408 or (563) 244-5208

DATE:

July 27, 2009

SECTION Programmes Ingredients/Identity Information

OMPONENTS:

	CAS Number	OSHA PEL	ACCOUNT LLV	
Ethanol (Ethyl Alcohol) 200 proof	0064-17-5			95-98%
Natural Gasoline	8006-61-9			2-5%
*Benzene	0071-43-2	1 ppm	10 ppm	< 0.196

*A chemical known to the State of California to cause cancer

SECTION III - Physical/Chemical Characteristics

Boiling Point, °F	BOOM TON
Reid Vapor Pressure, psi, 100°F	3.5
Vapor Density (Air = 1) at 172°F	1.6
Specific Gravity (H ₂ O=1) at 60°F	0.79
Evaporation Rate (Butyl Acetate=1)	3.2
Solubility in Water	Completely miscible
Appearance and Odor	Clear, colorless liquid; characteristic odo

SECTION IV - Fire and Explosion Hazard Data

Flash Point (Method Used):	Minus 5°F, Tag Open Cup
Auto ignition temperature:	>689°F
Flammable Limits (LEL):	3.3

Flammable Limits (UEL): 1 Extinguishing Media: 0

CO₃, dry chemical or water for small fires; polar solvent foam for large fires.

Special Fire Fighting Procedures: Water is not effective until the alcohol contains approx. 80% water.

Unusual Fire and Explosion Hazards: Flammable liquid.



UNDENATURED ETHANOL



(+ CORROSION INHIBITORS)





AIR / WATER MONITORING





AIR MONITORING/SAMPLING







AIR MONITORING

Track Excavation





SOIL SAMPLING









SAMPLING PLAN



Center for Toxicology and Environmental Health, L.L.C.

120 North Share Drive North Little Rock, AR 72118 Phone: 501.801.8500 Fax: 501.801.8501 www.ctah.com

Working Draft

SAMPLING AND ANALYSIS PLAN

ETHANOL RELEASE

TISKILWA, ILLINOIS

Prepared On Behalf Of: Iowa Interstate Railroad

PREPARED BY:

CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, L.L.C. 5120 NORTH SHORE DRIVE NORTH LITTLE ROCK, AR 72118 501-801-8500 WWW,CTEH.COM

October 9, 2011

Revised October 10, 2011 Revised October 13, 2011

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APPENDIX A - ETHANOL MSDS













BNSF Galena Train Derailment - 2015

















Response Management

- IEMA/Galena FD used NIMS from the onset
 - 2 separate 'IAPs' being developed (BNSF & IL IMT)
 - NOFI issued to BNSF by US EPA
 - IEPA & USEPA coordinated from Day 1
 - US EPA deployed 'IMT Lite'
- US EPA / IEMA established UC on Day 4
 - US EPA
 - Illinois EPA
 - Galena FD / Jo Daviess County EMA
 - BNSF Railway
- 1st combined IAP developed for OP#4



IC to UC Transition

- Composition of UC
- UC selected based on:
 - Responsibility, Authority, Expertise
 - PHMSA, FRA, OSHA, IEMA, IL IMT left off
- Strategy was to populate KLPs with qualified personnel w/ longevity on site (EPA shadow or deputy)
- Utilize BNSF contractor CTEH's IAP software



'IMT' Meetings Progression









VIP Briefing – Day 5 (Monday)





OPS Briefing – Day 6



OPS Briefing – Day 12



Incident Action Plan #10: 03/17/2015 07:00 CDT - 03/12/2015 07:00 CDT #1 Prepared By: Anton Avguchenko Incident: Version Name: P010V02 Period: Approved By

Name U.S. EPA REGION 5 PAUL RUEXCH

BNSF Charles GEVERSE ID DAVIESS EMA

Organization

Incident Photo



		I	ncluded in Action Plan			
П	Incident Forms	D	Period Forms	П	Attachments	
0	Include Incident Cover	8	ICS 202 - Incident Objectives	8	208 Safety Message/Plan	
0	ICS 201-1 - Incident Briefing	0	ICS 203 - Organization Assignment Lists	8	205a - Communications List	
0	ICS 201-2 - Summary of Current Actions S I		ICS 204 - Assignment List(s)		Oil Spill Contingency Plan	
0	ICS 201-3 - Organization Chart	œ	ICS 205 - Communication Plan	8	Water Influx Contingency Plan	
0	ICS 201-4 - Resource Summary		☑ ICS 206 - Medical Plan		209 Situational Update	
0	ICS 201-5 - Site Safety and Control Analysis	01-5 - Site Safety and Control Analysis 🗑 ICS 207 - Organizational Chart		8	Site Map	
	Reactive Phase Weather Report	8	ICS 208 - Site Safety Plan(s)	8	ICS 203 OP10	
0	Reactive Phase Notifications	0	ICS 211P - Check In List	8	Site Road map	
		0	ICS 213 - General Message(s)	8	Plan Tracker	
П		8	ICS 214 - Activity Logs	8	ICS 233 - Open Action Items	
		0	ICS 215 - Operational Planning Worksheet	Г		
1		8	ICS 230 - Meeting Schedule			
		0	Weather Report			
		0	Incident Critique			

	ICS 202: Incident Obj	ICS 202: Incident Objectives								
In	cident: BNSF Galena Derailment	Prepared By:	Anton Avguchenko							

Version Name: 03/17/2015 08:25 CDT Period: #10: 03/17/2015 07:00 CDT - 03/25/2015 07:00 CDT

Objective(s)

- 1. SAFETY OF RESIDENTS & RESPONDERS
- 2. PROTECT ENVIRONMENT AND CONTROL RUNOFF
- 3. STABILIZE SITE
- 4. MONITOR ENVIRONMENTAL CONDITIONS/IMPACTS
- 5. FACILITATE INVESTIGATIONS & PRODUCT RECOVERY/REMEDIATION
- 6. RESTORE DERAILMENT SITE
- 7. ENSURE SAFE AND EFFECTIVE TRACK OPERATIONS
- 8. ENSURE CONSTRUCTION OF SITE CONTROLS

Operational Period Command Emphasis

INITIATE TRANSITION OF REGULATORY OVERSIGHT FROM USEPA TO ILEPA

RELOCATE COMMAND POST

COMMUNICATE HEALTH AND SAFETY PLAN TO ALL RESPONDERS

TRAIN RESPONDERS ON-TRACK SAFETY

COMMUNICATE CONTINGENCY PLAN TO ALL RESPONDERS

CONTINUE COMMUNICATIONS AMONG RESPONDERS AND RESPONSE AGENCIES

IMPROVE COMMON OPERATING PICTURE AT THE SITE AND THE ICP

UPDATE THE CONTAINMENT/CONTINGENCY PLAN

LIMITATIONS/CONSTRAINTS

TRACK WINDOWS

General Situational Awareness

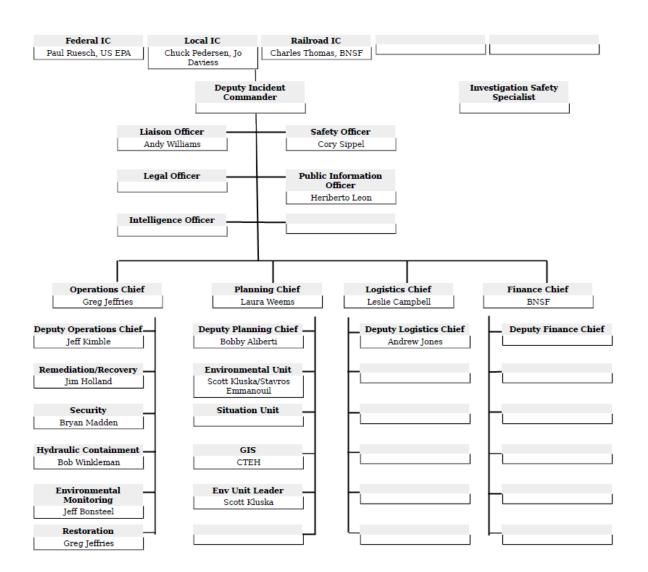
ENVIRONMENTAL SAMPLING CONTINUES (SURFACE WATER ONLY)

INSTALLATION OF SHEETPILING WALL

DELIVERY OF WATER TREATMENT SYSTEM

COMMAND SITE HAS NIGHTTIME SECURITY ONLY

WORK SITE STILL HAS 24HR SECURITY





BNSF Galena Derailment Plans Tracker

	BNSF Galena Derailment Plans Tracker											
	Ops / Health&Safety /Environmenta I	Status	Plan Name	Version	Activities Covered	Company	Date Drafted	Version Draft Date	Submitted to Unified Command	by Unified	IAP	Comments
1	Health & Safety	Active	Air Sampling and Analysis Plan	1.2	air sampling and analysis	CTEH	3/6/2015	3/11/2015	3/6/2015	3/6/2015		Updated to remove community monitoring and combustion gas monitoring
2	Health & Safety	Active	BNSF Health Site Safety Plan	3	BNSF overall HASP for all operations	Safety Officer	3/6/2015		3/6/2015	3/6/2015	3/9 - 3/10/15	
3	Ops	In Review	Demobilization Plan		demob of contractors and personnel	Planning	3/11/2015		3/11/2015	3/11/2015	3/12-3/14/15	
4	Health & Safety	Active	Emergency Evacuation and Personnel Injury Plan		emergency evacuation and personnel injury plan	SOFR	3/13/2015		3/13/2015	3/13/2015	3/15 -3/17/15	
5	Health & Safety	In Review	HASP - Health and Safety Plans		Brennan Marines HASP submitted	VARIOUS	3/15/2015					Added Brennan/Under UC review
6	Environmental	Active	Oil Spill Contigency plan		oli spili contigency pian	ARCADIS	3/15/2015		3/15/2015	3/16/2015		
7	Environmental	On Hold	Phase Laser Induced Fluorescence Work Plan	2	LIF activities	ARCADIS	3/6/2015		3/9/2015	3/9/2015		UC had edits to v1 and returned to AUS for update
8	Environmental	Active	Post Excavation Soil Sampling Plan	2	soil sampling plan for conf. samples	ARCADIS	3/9/2015	3/9/2015	3/9/2015	3/9/2015	3/9 - 3/10/15	
9	Environmental	Active	Sheet Wall and Drainage Trench Plan	1	sheet pile wall and drainage trench install	ARCADIS	3/9/2015		3/9/2015	3/9/2015	3/10 - 3/11/1	
10	Environmental	Active	Site Decon Plan		equipment decon	BNSF	3/12/2015		3/12/2015	3/14/2015		
11	Ops	Active	Site Security Plan	1	security operations for site and ICP	BNSF	3/8/2015		3/8/2015	3/8/2015	3/9 - 3/10/15	
12	Environmental	Active	Site Transfer Plan		product transfer	Sunpro	3/7/2015		3/10/2015	3/10/2015		
13	Environmental	Active	Surface Water Sampling and Monitoring Amendment		frequency amendment	Pinnacle Eng.	3/10/2015		3/11/2015	3/11/2015		
14	Environmental	Active	Surface Water Sampling and Monitoring Plan		surface water monitoring	Pinnacle Eng.	3/10/2015		3/10/2015	3/10/2015		
15	Environmental	COMPLETE	Tank Car Cleaning and Purging Plan	1	cleaning and purging Tanks	BNSF	3/10/2015		3/10/2015	3/11/2015	3/12-3/14/15	
16	Environmental	COMPLETE	Tank Car Salvage Plan	1	car salvage	BNSF	3/11/2015		3/11/2015	3/11/2015	3/12-3/14/15	
17	Ops	In Draft	Traffic Control and Maintenance Plan		trailer movement for IC site jump	Pinnacle Eng.						
18	Ops	Active	Traffic Control Plan	1	Map of traffic plan	BNSF	3/6/2015	3/8/2015	3/8/2015	3/8/2015	3/9 - 3/10/15	
19	Environmental	Active	Waste Management and Handling Plan		waste management	ARCADIS	3/10/2015		3/10/2015	3/12/2015		
20	Environmental	In Draft	Waste Management and Handling Plan Amendment		updated disposal & Disposal site Information	ARCADIS					2/18/2015	UC had edits to v1, updated and returned to UC
21	Environmental	Active	Water Influx contigency plan		flood contigency plan	ARCADIS	3/15/2015		3/15/2015			
22	Environmental	Active	Water Treatment Plan	1	water treatment	ARCADIS	3/12/2015		3/12/2015	3/16/2015	3/12-3/14/15	
23	Health & Safety	Active	Worker Exposure Monitoring Plan	1	work monitoring	CTEH	3/7/2015		3/7/2015	3/7/2015	3/9 - 3/10/15	
24												
25												
26												
27												
		16	in Active Status - Ongoing Operation									

in Review, Drafted, on Hold Status

in COMPLETE Status - Operation Complete

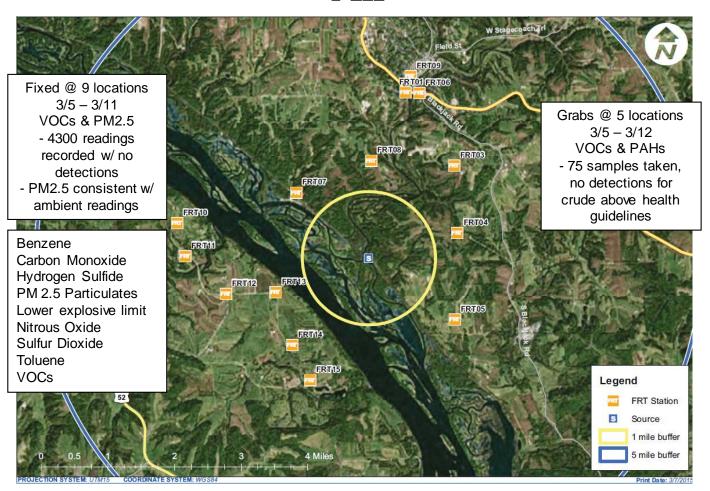
2

Monitoring & Sampling

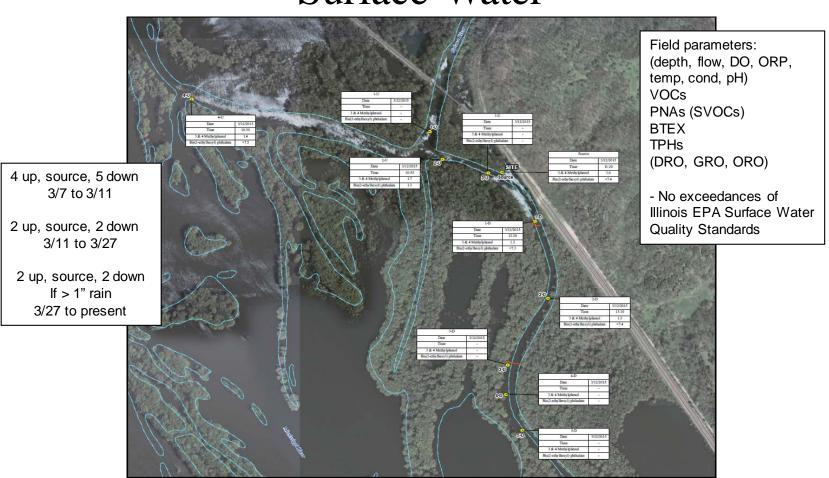
- Air
- Product
 - Fingerprint, SDS, analysis
- Surface Water
- Soil

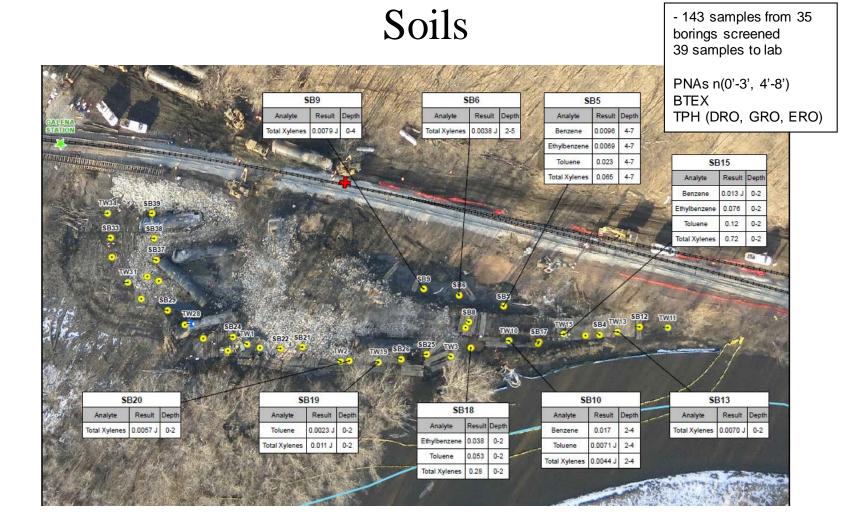


Air



Surface Water

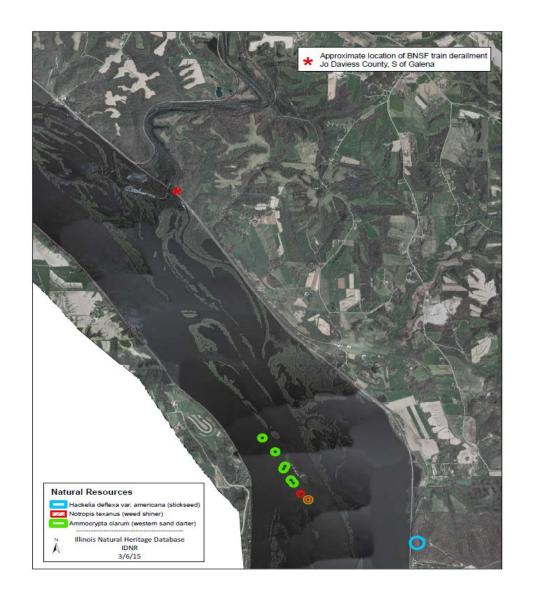




Endangered Species Act

NOAA SSC initiated consults

IDNR &US FWS did not identify endangered species at derailment site



Contact

Paul Ruesch 312-919-4382 ruesch.paul@epa.gov

