



SDPA South Dakota Fire School 2018 Summary

Overview

In the early 1900's, the South Dakota Firefighters Association was lawfully established as a public institution, having firefighters participate in statewide training, conventions and schools. Firefighters in South Dakota have engaged in trainings and schools since 1884, hosting annual South Dakota Firefighters Association conventions ever since, excluding 1899 and 1918. In 1930, the convention was redesigned as the annual South Dakota State Fire School with a new location every year. The 2018 South Dakota State Fire School was held Thursday, June 7 to Saturday, June 9 at the Mitchell Technical Institute.

In 2018, the SDPA took a different approach to partnering for the event. Instead of sponsoring lunches or providing tuitions to students, formal training was provided in classroom breakout sessions Friday and Saturday mornings. Reference the attached slide deck for details. The presentation included:

- Introduction by Dan Miller, SDPA chair. This included:
 - A welcome and thank you to the SD Firefighter's Association
 - Mission statement of the SDPA
 - Review list of current members
 - Pipeline purpose review
 - Review of 2018 meeting locations and example informational slides
 - A recommendation to sign up for 2019 events and how
- Randy Leach, Paradigm, then provided the formal training presentation.
 - This included the typical information provided at the first responder meetings
 - A table top scenario involving response to a liquid release north of Mitchell, SD was completed

Total training time was approximately 3 hours with 9 attending on Friday morning and 5 on Saturday morning (see attached sign in sheets). Response was very good with excellent dialog during the table top exercise. Randy Leach provided a lot of real world response examples from his time as a first responder.

As with 2017, the vendor show opened Thursday afternoon and closed Saturday at noon. Total attendance at the event was over 400 per the fire school, which was an increase from 2017. Reference the following link for a copy of the event schedule: https://admin.abcsignup.com/files/734F2D0B-CA09-44A0-82BD-AEB1566D4013_14/16377/2018_Class_Catalog_DRAFT.pdf

2018 Sponsors

- **Provident Insurance – booklet funding**
- **One Beacon – booklet funding**
- **First Fire – booklet funding**
- **Fischer-Rounds Insurance – booklet funding**
- **Rosenbauer Fire Apparatus – booklet funding**
- **All vendors (there were over 30) – vendor show social**



SDPA South Dakota Fire School 2018 Summary

Cost

The cost for this event was \$3,755.95, which includes Paradigm's fee for labor and expenses, paid by the SDPA.

Suggestions for next Year

Attendance to each class was lower than expected. It is likely due to the large number of breakout courses available at any one time. Suggestions include:

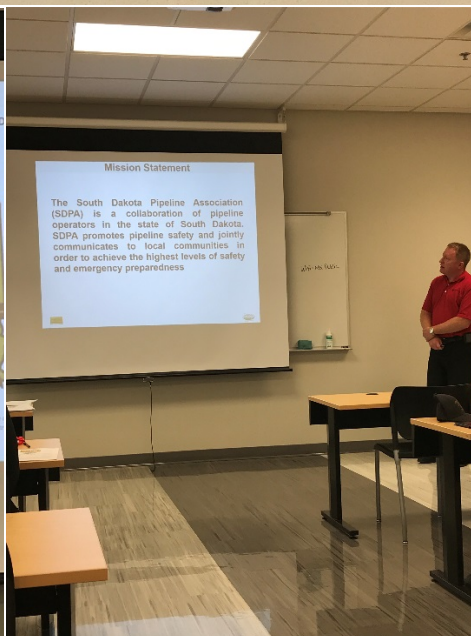
- Working with the fire school to potentially setup a larger room or to participate in a large discussion
- If a large session is not possible, then potentially setup two four hour sessions each day (four total classes)
- Include more SDPA members in the discussion. When covering the table top exercise, it would have been helpful to have a member with each group and more than just natural gas operators in attendance.

Photos





SDPA South Dakota Fire School 2018 Summary



SD Firefighters Association 2018

South Dakota Pipeline Association

Introduction: Dan Miller



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Mission Statement

The South Dakota Pipeline Association (SDPA) is a collaboration of pipeline operators in the state of South Dakota. SDPA promotes pipeline safety and jointly communicates to local communities in order to achieve the highest levels of safety and emergency preparedness

South Dakota Pipeline Association



Crooks Municipal Utility



Garretson Natural Gas



Why We Need Pipelines



Why We Need Pipelines

For Transportation:

- Diesel Fuel
- Gasoline
- Jet Fuel
- Aviation gasoline
- Natural Gas
- Kerosene



Why We Need Pipelines

To Heat Our Homes:

- Home heating oil
- Natural gas
- Propane



South Dakota Pipeline Association

Look for our 2019 meeting schedule later this year on our website:

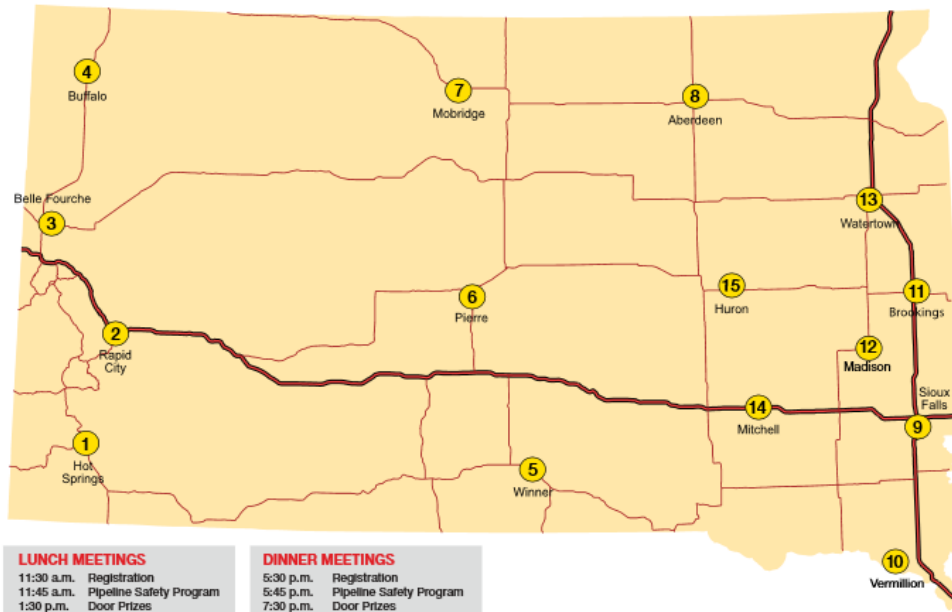
sdpa.pipelineawareness.org



2018 Meeting Dates and Locations

Look us up on the web at sdpa.pipelineawareness.org

2 CEU's Available



LUNCH MEETINGS

11:30 a.m. Registration
11:45 a.m. Pipeline Safety Program
1:30 p.m. Door Prizes

DINNER MEETINGS

5:30 p.m. Registration
5:45 p.m. Pipeline Safety Program
7:30 p.m. Door Prizes

SDPA Member

Basin Electric Power Cooperative
Black Hills Power, Inc.
City of Sioux Falls Landfill Gas Pipeline
Crooks Municipal Utility
Dakota Access/Energy Transfer (operated by Sunoco Pipeline)
Garretson Natural Gas
Humboldt Municipal Gas Utility
Magellan Midstream Partners, L.P.
MidAmerican Energy Company
Montana-Dakota Utilities Co.
Northern Border Pipeline Company

Emergency Number

800-339-5616
605-721-2289
866-412-2254
800-245-8977
800-753-5531
800-245-8977
800-245-8977
800-720-2417
800-595-5325
800-638-3278
800-447-8066

SDPA Member

Northern Natural Gas Company
NorthWestern Energy
NuStar Energy - Central East Region
Plains Pipeline Rocky Mountain Products
South Dakota Intrastate Pipeline Company
TransCanada Keystone Pipeline
TransCanada KXL Project
Watertown Municipal Utilities
WBI Energy Transmission
Xcel Energy

Emergency Number

888-367-6671
800-245-8977
800-759-0033
866-800-7677
800-952-0949
800-447-8066
800-447-8066
605-882-6233
888-859-7291
800-895-2999

- 1 **January 22nd, 2018**
DINNER
Hot Springs, SD
Mueller Civic Center
801 S. 6th St.
- 2 **January 23rd, 2018**
LUNCH
Rapid City, SD
Best Western Ramkota Hotel
2111 N. Lacrosse St.
- 3 **January 24th, 2018**
DINNER
Belle Fourche, SD,
The Branding Iron
19079 US Hwy. 85
- 4 **January 25th, 2018**
DINNER
Buffalo, SD
Harding County Rec Center
204 Hodge St.
- 5 **January 29th, 2018**
DINNER
Winner, SD
Holiday Inn Express & Suites
1360 E. Hwy 44
- 6 **January 30th, 2018**
LUNCH
Pierre, SD
View 34
4251 E. Hwy. 34
- 7 **January 31st, 2018**
DINNER
Mobridge, SD
Pizza Ranch
1209 10th St. W.
- 8 **February 1st, 2018**
LUNCH
Aberdeen, SD
Best Western Ramkota Hotel
1400 8th Ave. N.W.
- 9 **February 5th, 2018**
LUNCH
Sioux Falls, SD
Holiday Inn Centre
100 W. 8th St.
- 10 **February 5th, 2018**
DINNER
Vermillion, SD
University of South Dakota -
Muenster University Center -
Ballroom 225A
401 E. Cherry St.
- 11 **February 6th, 2018**
LUNCH
Brookings, SD
Swiftel Center
824 32nd Ave.
- 12 **February 6th, 2018**
DINNER
Madison, SD
Nicky's
1407 N.W. 2nd St.
- 13 **February 7th, 2018**
DINNER
Watertown, SD
Elks Lodge
600 W. Kemp Ave.
- 14 **February 8th, 2018**
LUNCH
Mitchell, SD
Highland Conference Center
2000 Highland Way
- 15 **February 8th, 2018**
DINNER
Huron, SD
Crossroads Hotel & Huron
Event Center
501 Wisconsin Ave. S.W.



Know what's below.
Call before you dig.

RSVP: sdpa.pipelineawareness.org or call 877-477-1162



Pipeline Mileage Overview*

<u>Pipeline Type</u>	<u>South Dakota</u>	<u>Nationwide</u>
Hazardous Liquid	743	199,653
Gas Transmission	1,567	301,791
Gas Gathering	0	17,621
Gas Distribution Main	4,845	1,266,010
Gas Distribution Service	3,640	902,772
Total Mileage	10,795	2,687,848

*Pipeline and Hazardous Materials Safety Administration (PHMSA)

Company Profiles

City of Sioux Falls Landfill Gas Pipeline



Sanitary Landfill
26750 464th Avenue
Sioux Falls, SD 57106
Phone: 605-367-8162

General Information

The City of Sioux Falls owns and operates an 11-mile, 12-inch diameter, low-pressure High Density Poly Ethylene (HDPE) Landfill Gas Pipeline from the Sioux Falls Regional Sanitary Landfill (Landfill) to the POET Biorefining Ethanol Plant near Chasco, South Dakota. The majority of the pipeline route is in the public right-of-way of two townships—Home and Germantown. Both of these two rural townships reside in Turner County.

The beginning, or upstream end, of the pipeline is located on the City's Landfill property located in Minnehaha County. There is a small (approximately 33-foot) portion of the pipeline in the Minnehaha County right-of-way as it leaves the Landfill property and crosses a township road into Turner County. Off Landfill property, the pipeline runs in the public right-of-way west along 268th Street to 463rd Avenue where it turns and runs south until 277th Street, where it turns and runs west until it enters POET property and runs south to the plant. The downstream end of the pipeline is located on POET property.

For more information on the Landfill Gas Pipeline please feel free to call 605-367-8162 during normal hours or 866-412-2254 after hours.



**Product:
Landfill Gas**

**24 Hour Emergency
Contact Phone:
866-412-2254**

**Counties of
Operation:
Minnehaha
and Turner**

Commitment to Safety, Health, and Environment

The City of Sioux Falls is committed to safety and protecting the health of its personnel, neighbors, the general public, and its customers as well as the surrounding environment. Safe practices need to be taught and reinforced throughout the year in an effort to prevent accidents and ensure safe operation. There is no substitute for sound judgment of the situation by the person or persons involved; the safety and well-being of the public, responders, and personnel must always be given prime consideration. Training is conducted by the City to mock certain emergency situations. This will be an aid in emergency preparation and coordination among emergency responders.

Remember, People First then Property and Environment.

The City of Sioux Falls is committed to review its pipeline operations on an on-going basis to enhance the protection of people, property, and the environment.

The primary cause of pipeline damage is from third party dig-ins. As a result, the City strongly supports the use of the South Dakota One-Call System (dial 811) which is a free call and requires facility operators such as pipelines to accurately mark the location of buried utilities to prevent such damage.



Landfill Gas Pipeline Marker



**Know what's below.
Call before you dig.**

Natural Gas – Gas In and Gas Out of Pipeline

- Vapors
 - Lighter than air and will generally rise and dissipate
 - Odorless, colorless and tasteless in its natural state
- Explosive Limits
 - 4.0 – 15% LEL-UEL (Lower / upper explosive limit)
- Health Hazards
 - Can be ignited by heat, sparks or flames
 - Can form combustible mixture with air
 - Vapors may cause dizziness or asphyxiation without warning (displaces oxygen)
 - Contact with gas or liquefied gas may cause burns, severe injury
 - H₂S can be present in Natural Gas



Odorant (if added) is Mercaptan

SD Firefighters Association 2018

First Responders and Emergency Personnel - Instructor: Randy Leach



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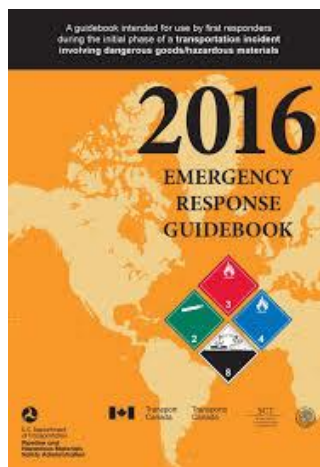


Today's Objectives

Purpose

1. **Learn** your responsibility and resources in the event of an emergency
2. **Acquaint** you with the operator's ability to respond to a pipeline emergency
3. **Identify** the types of pipeline emergencies
4. **Plan** how all parties can engage in mutual assistance to minimize hazards to life or property

Program Resources



sdpa.pipelineawareness.org



Training Resources

pipelineawareness.org/stakeholder-resources/emergency-responder-training-resources/

pipelineawareness.org/media/1092/2017-pipeline-emergency-response-guidelines.pdf

Local Operator Information*

Specific Jurisdictional Information in Handout

- **Operator and/or company name**
- **Pipeline systems and products**
- **Location of pipelines**
- **Pipeline size and operating pressure(s)**
- **Type of response(s) to a pipeline emergency**



*Information in your materials may not represent all pipeline companies in your area

Pipeline System Types

Gathering

Transport gases and liquids such as oil or natural gas, from the commodity's source to a processing facility and/or storage facilities.

Transmission

Can vary in size and have greater flow and pressure than other types of pipelines. They can transport natural gas or other refined products from a gathering, processing, or storage facility to processing or additional storage facilities.

* Natural Gas is important for electrical generation

Distribution

Are unique to natural gas systems. These pipelines are used to deliver product to end-users or customers and tend to be in populated areas.

Storage Facilities

Above or underground facilities used to receive and store hazardous liquid or natural gas transported by a pipeline for reinjection and continued transportation by pipeline.

National Pipeline Mapping System (NPMS)

npms.phmsa.dot.gov

- NPMS is built from data submitted by operators. Since 2002, operators have been required to submit mapping information and update their submissions annually.
- NPMS **does not contain** information on interconnects, pump and compressor stations, valves, direction of flow, capacity, throughput, operating pressures, **distribution or gathering pipelines.**

npms NATIONAL PIPELINE MAPPING SYSTEM

Search

GOVERNMENT OFFICIAL

PIPELINE OPERATOR

GENERAL PUBLIC

FIRST-TIME VISITOR

PIMMA USER LOGIN
PASSWORD PROTECTED VIEWING RESTRICTED TO GOVERNMENT OFFICIALS AND PIPELINE OPERATORS

LOGIN **APPLY FOR PIMMA ACCESS** **PIMMA IPHONE APP**

Forgot Password?

PUBLIC MAP VIEWER
PIPELINE MAPS FOR THE GENERAL PUBLIC - NO PASSWORD REQUIRED

ABOUT PUBLIC MAP VIEWER **USE PUBLIC MAP VIEWER** **PUBLIC VIEWER IPHONE APP**

Home About NPMS What's New Contact Us

FAQs FOIA Privacy Policy

PHMSA
Pipeline and Hazardous Materials
Safety Administration

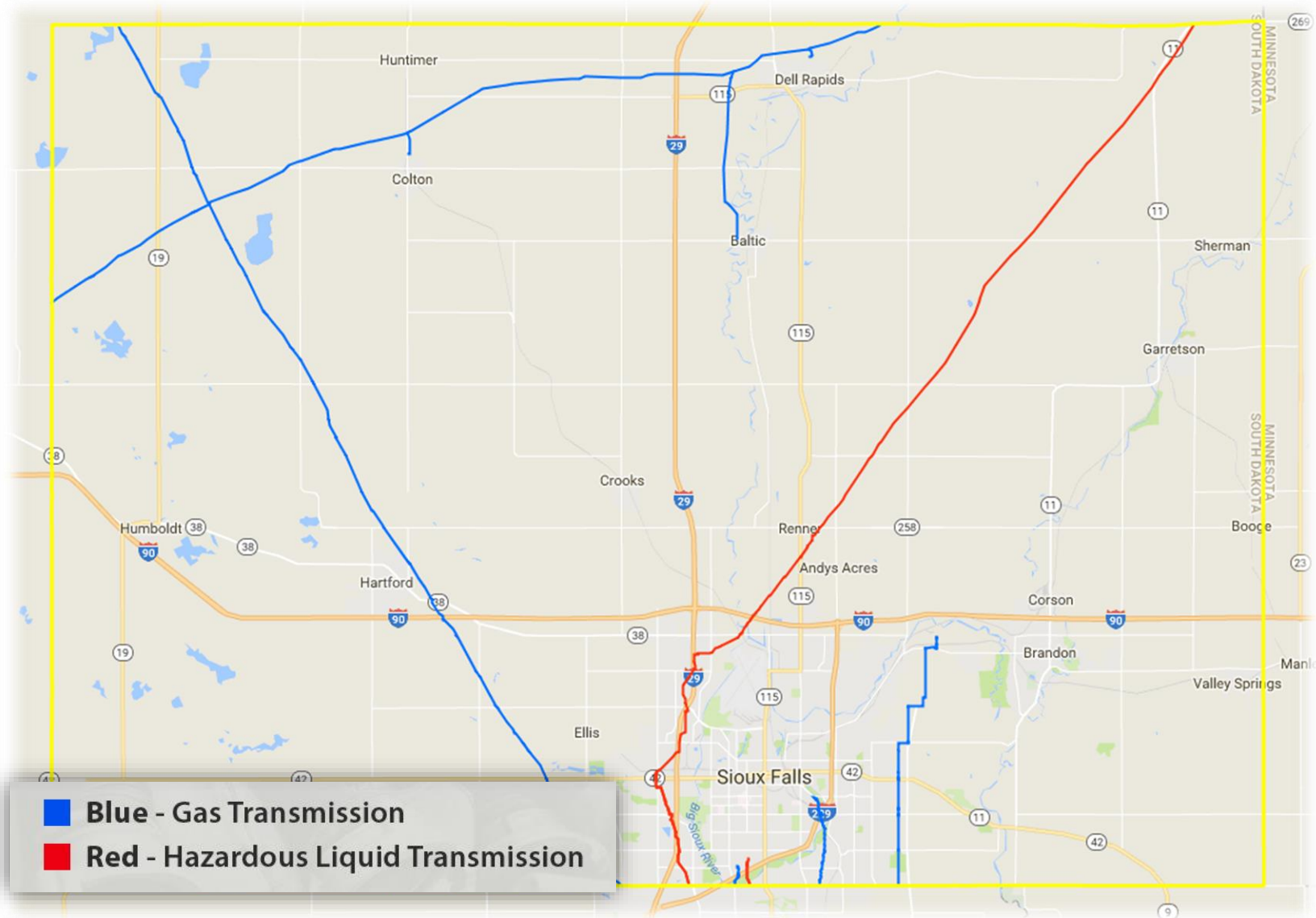
The National Pipeline Mapping System contains information about hazardous liquid and gas transmission pipelines under the jurisdiction of **US DOT PHMSA**.
© 2017 - All Rights Reserved - PHMSA - Pipeline and Hazardous Materials Safety Administration

811 Know what's Below. Call before you dig.

U.S. Department of Transportation

National Pipeline Mapping System (NPMS)

npms.phmsa.dot.gov



Right-of-Way (ROW)



Product Characteristics – Common Hazards

Hazardous Liquids

(Crude oil, jet fuel, gasoline, other refined products)

Liquid in and liquid out of the pipeline

ER Guide 128 (Page 194)

Highly Volatile Liquids

(Propane, butane, ethane, natural gas liquids)

Liquid in and vapor out of the pipeline

ER Guide 115 (Page 168)

Natural Gas

Gas in and gas out of the pipeline

ER Guide 115 (Page 168)

***Odorant (if added) is Mercaptan**



Potential Hazards

- Highly flammable and easily ignited
- Vapors may travel to source of ignition and flash back

Health Hazards

- Vapors may cause dizziness or suffocation
- Fire may produce irritating, corrosive, and/or toxic gases

Public Safety

- Isolate spill or leak area
- Keep unauthorized personnel away
- Stay uphill, upwind and/or upstream

Product Characteristics – Unique Hazards

Highly Volatile Liquids

ER Guide 115 (Page 168)

Will form explosive mixtures with air

Vapors are initially heavier than air and spread along ground

Hazardous Liquids

ER Guide 128 (Page 194)

Vapors may form explosive mixtures with air

Topography and environmental factors will affect vapor migration

Natural Gas

ER Guide 115 (Page 168)

Vapors are lighter than air

Potential Hazards

Can be irritating if inhaled at high concentrations

Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite

Inhalation or contact with material may irritate or burn skin and eyes

Fire may produce irritating, corrosive, and/or toxic gases

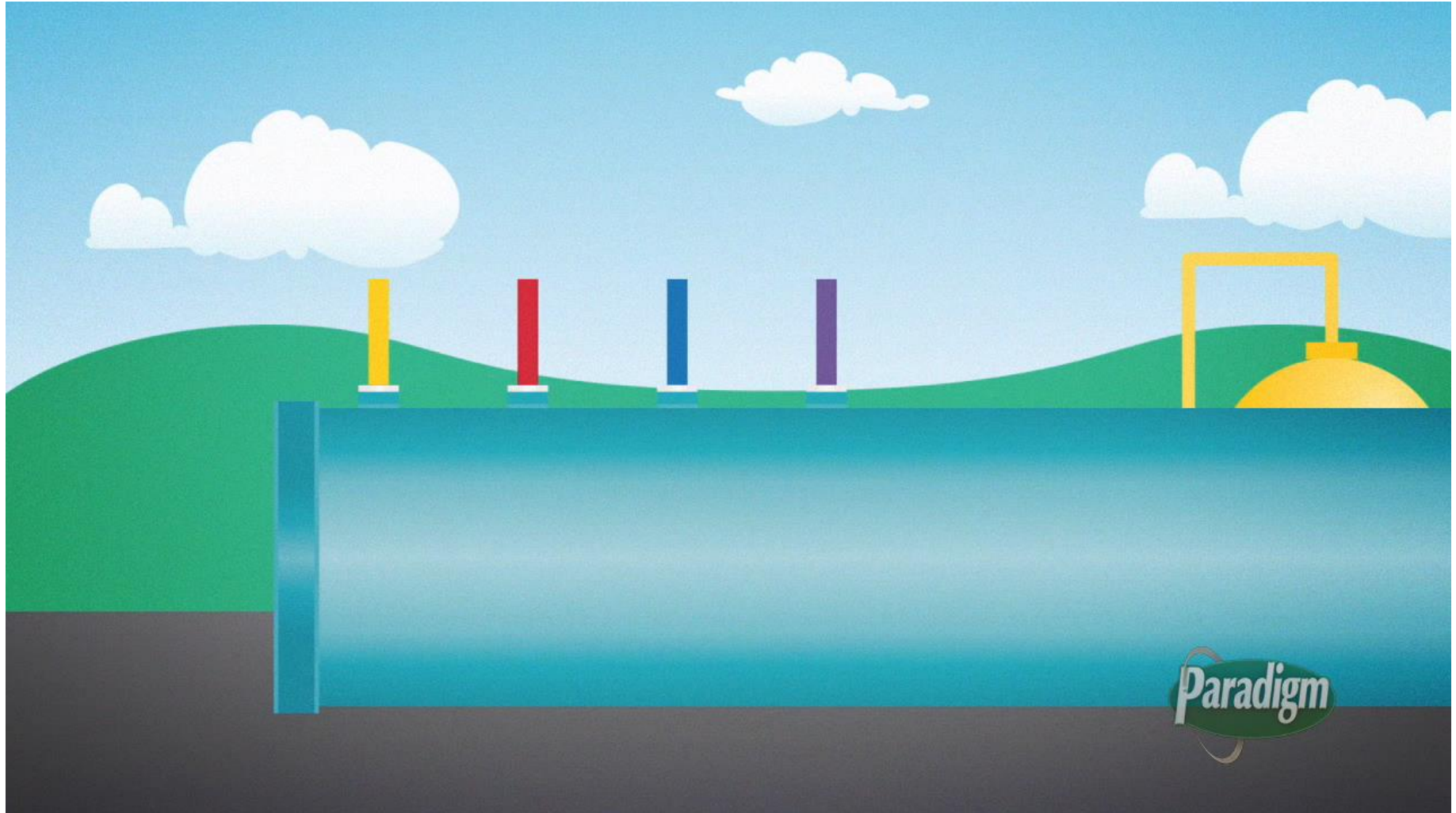
Can be irritating if inhaled at high concentrations

Vapors are initially heavier than air and will spread along ground and collect in low lying areas (sewers, basements, tanks)?

Public Safety



Petroleum Products



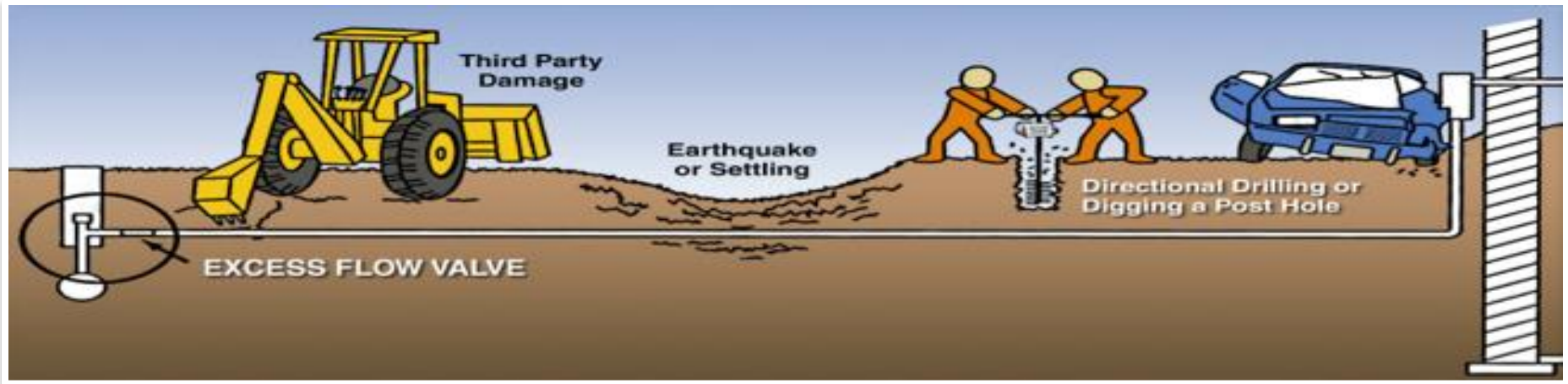
Local Distribution Systems



- Be aware not all natural gas leaks are from excavation; Unintended leaks from stoves, water heaters, furnaces, etc.
- **Caution:** use combustible gas indicators on sites when called out on natural gas leak events
- Mercaptan can be stripped as it travels through soil
- Frost heaves, breaking pipes
- Gas meters break due to snow build up from melting snow falling from roofs

Excess Flow Valve (EFV)

Local Distribution Lines



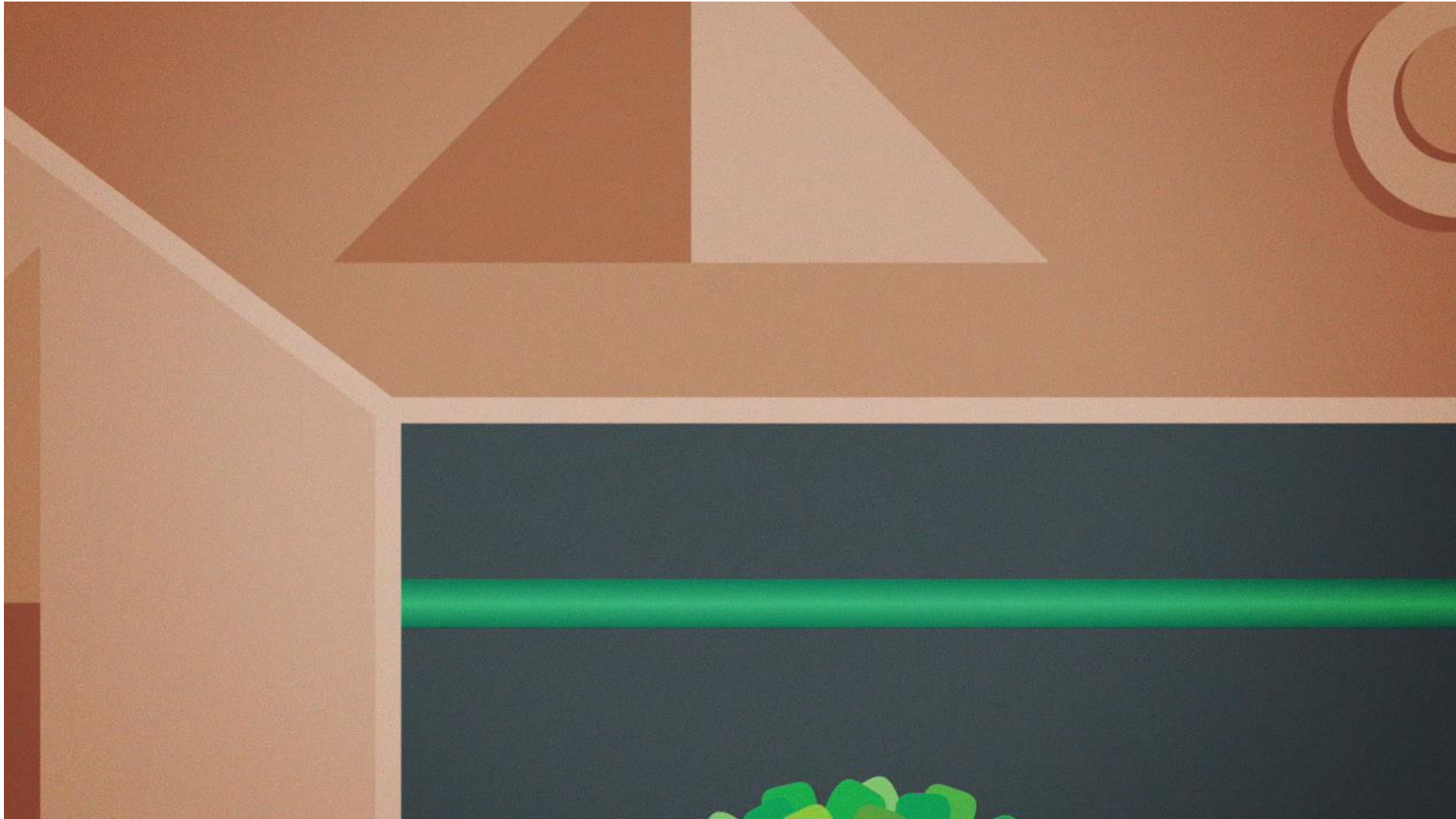
- Automatic reduction of gas flow should service line break
- **May not** completely stop the flow of natural gas
- **May not** hear a distinct hissing sound
- Migration and ignition sources may still exist
- Always work a coordinated response with your local operator



Not all service lines have an EFV installed

Horizontal Directional Drilling (HDD)

“Cross Bores”



Landfill Gas Storage

Methane Gas

- Gas in and gas out
- Lighter than air
- Flammable/Explosive
- Displaces oxygen
- Has unique smell
- Migration
- Transported through either plastic or stainless steel pipes due to corrosiveness



Methane is important for electrical generation by burning it as a fuel in a gas turbine or steam boiler

Landfill Gas Storage

Methane Gas

- The City of Sioux Falls Regional Sanitary Landfill owns and operates a municipal solid waste landfill that supplies landfill gas to the POET Biorefining-Chancellor Ethanol Plant via an 11 mile plastic low pressure (30-35psi) pipeline
- There are approximately 150 gas wells on the landfill that pull the landfill gas out of the waste, remove the moisture and pressurize the gas for pipeline delivery
- Landfill gas is approximately 40 to 60% methane, 40 to 50% carbon dioxide and other trace gases

Contact the Sioux Falls Regional Sanitary Landfill staff for a tour of their system (605) 367-8162.

Pipeline Operators Emergency Response Plans

Natural Gas and Hazardous Liquids

- Notify appropriate fire, police, and other public officials of **gas** or **liquid** pipeline emergencies and coordinate planned responses and actual responses during an emergency
- Identification of the type of incident
- Prompt and effective response measures
- Availability of personnel and equipment
- Making safe any actual or potential hazard to life or property
- Incident investigation and review

Natural Gas (CFR 49 192.615)

- Establishing and maintaining communication with fire, police and other public officials
- Direct actions to protect people, then property
- Emergency shutdown and pressure reduction to minimize hazards to life or property
- Safely restore service

Hazardous Liquid (CFR 49 195.402)

- Taking necessary actions, such as emergency shutdown and pressure reduction
- Control of released hazardous liquid or carbon dioxide at scene to minimize hazards
- Minimization of public exposure to injury by taking appropriate actions such as evacuations or traffic controls
- Use of instrumentation to assess vapor cloud coverage and determine hazardous areas

Above Ground Storage Tanks

Tank farms/Terminals

Considerations when responding to tank fires:

Work with your local operator to;

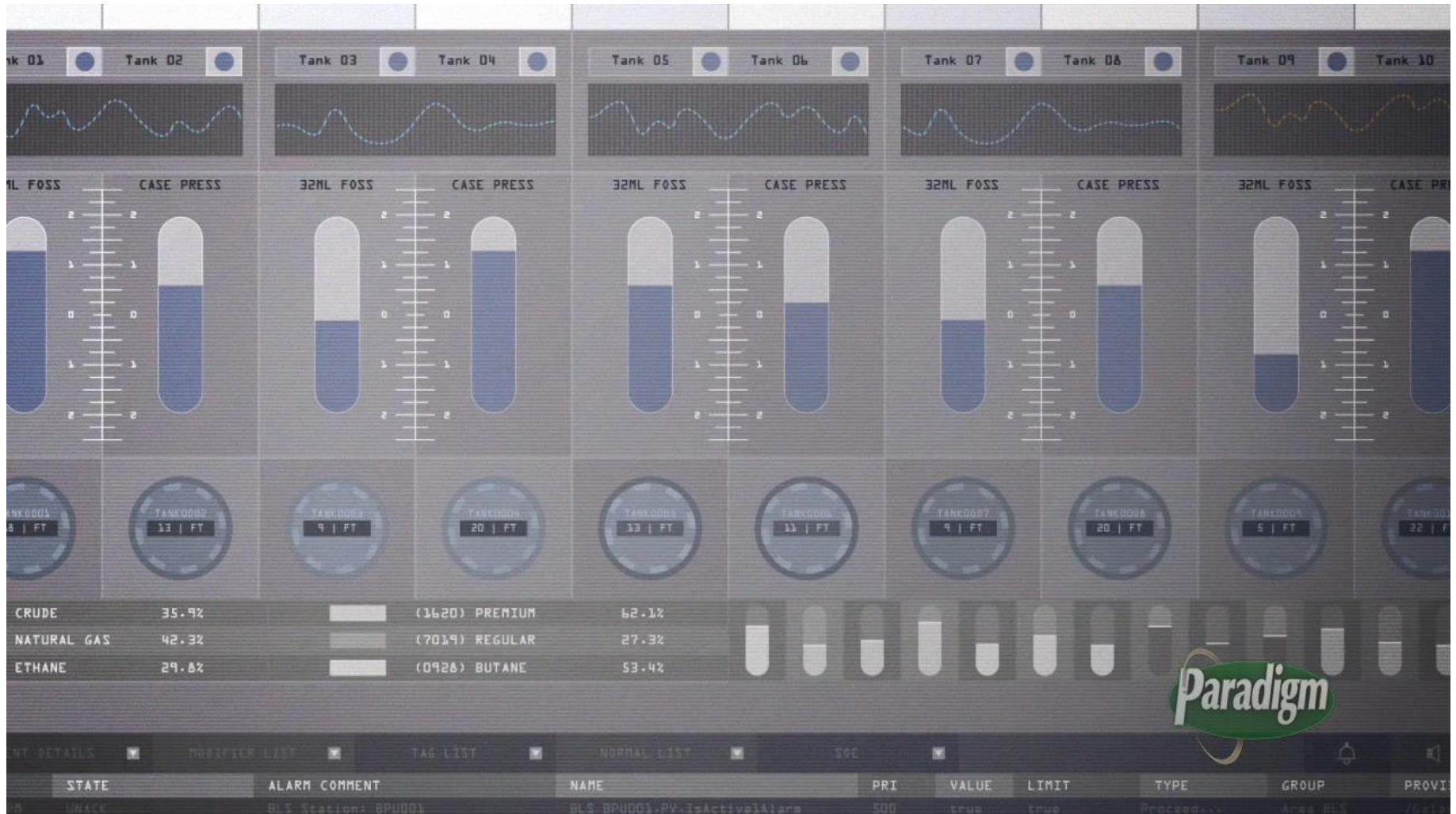
- Develop an effective response plan
- Identify products and hazards
- Determine evacuation radius

Response recommendations;

- Cool containers by flooding with water
- Use unmanned hose holders/monitor nozzles
- Do not direct water at safety devices or icing may occur
- Let product burn, even after supply line/system is closed
- Beware of the potential for **Boiling Liquid Expanding Vapor Explosion (BLEVE)**



Leak Recognition



Emergency Response and 811*

Derailments, car accidents, excavating/farming mishaps, and natural disasters

PHMSA Advisory Bulletin (2012-0176)

- Based on National Transportation Safety Board recommendation
- Inform Emergency Responders about the benefits of 811
- Identification of underground utilities in the area
- Notification of underground utilities that an incident has occurred



**Cherry Valley, IL
Train Derailment**

National Emergency Number Association (NENA)

Pipeline Emergency Operations Standard

NENA's Pipeline Emergency Operations Workgroup Recommendations

- Awareness of pipelines affecting the 911 Service Area
- Pipeline leak recognition and initial response actions
- Additional notifications to pipeline operators



Initial Intake Checklist

- Quick reference guide in program materials

Pipeline Emergency Operations Standard / Model Recommendations

- Access the full report through [NENA.ORG](https://www.nena.org)


“Actions taken during this time frame significantly impact the effectiveness of the response and are critical to public safety”

Pipeline Operators

Emergency Response Initiatives

Shoulder
To
Shoulder

ROLES IN PIPELINE EMERGENCY RESPONSE



Watch the Shoulder to Shoulder video series at
shoulder2shoulder.tv

INGAA **energy API** **AOPPI** **The INGAA Foundation, Inc.**

Pipeline Emergency Response Training


Professional Development Opportunities for Individuals and Organizations

Course Offerings

- National Association of State Fire Marshals
PIPELINE EMERGENCIES
- National Association of State Fire Marshals
PIPELINE EMERGENCIES
- National Association of State Fire Marshals
PIPELINE EMERGENCIES

Sponsored by

energy API
AMERICAN PETROLEUM INSTITUTE



Teamwork and Discussion

Pipeline Incident Response



Homeland Security Exercise & Evaluation Program

- We'll start after this break...



Exercise Hot Wash

- Based on our responses as part of the exercise discussion, what did we do well today?
- Based on what we know now, what would we have done differently?
- Are there any “Lessons Learned” that we want to capture from today’s exercise?

Thank You For Your Service





2018 South Dakota Fire School

Location: Mitchell, SD
 City State

Date: June 8, 2018

Name (Print Legibly)	Agency / Company Name	Phone	E-mail address
Jim Conrad	LAKE Preston FD	951.453.8224	jimconrad@earthlink.net
Justin Haines	Faith VFD	605-484- 6 ²¹⁹³	jhaines2016@gmail.com
Shawn Fischer	Sturgis VFD	605-863-2267	Shawnfe@sturgisgov.com
Harley Beck	North Marshall FD	(605) 290-3795	harley.beck6@gmail.com
Jesse Morton	Milbank FD	605-949-2050	jessemorton16@hotmail.com
Aaron Fink	(F&C) Woonsocket FD	605 356 6712	alkf@santel.net
Jacob Stratmeyer	TEA FD	605-214-1505	jstratmeyer@gmail.com
Justin Wisrunmeier	Winner Fire Dept.	605-840-0921	vldonovan@hotmail.com
Tom Meiner	Winner	605-840-2723	Maytagman@CWTC.net



2018 South Dakota Fire School

Location: Mitchell, SD
City State

Date: June 9, 2018

Name (Print Legibly)	Agency / Company Name	Phone	E-mail address
Duane Hofer	North Haines VFD	605-390-7752	hoferfirestuff@hotmail.com
Roger Van Den Oever	Stickney VFD	605 732 4294	
Aaron Mullinix	Beresford FD	605 595-4230	mullinixaa@gmail.com
Kurt Hinsch	Beresford FD	605-261-0770	HinschKS7@gmail.com
Roby Carl	luteputson	605 651 9894	