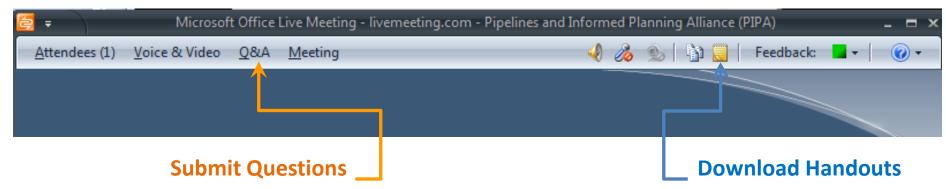
Land Use and Development Planning near Transmission Energy Pipelines ~ North Dakota ~

1:00 PM - 2:15 PM CST, Jan. 15, 2013



Questions can be submitted at any time by clicking on the Q&A menu in the LiveMeeting menu bar near the top of the screen.

Handouts are available using the notepad icon in the upper right corner.

Call-in

Toll Free: 877-336-1839

Participants Code: 7596720

Please let us know if you are having technical difficulties!

Land Use and Development Planning near Transmission Energy Pipelines ~ North Dakota~

Jan. 15, 2013







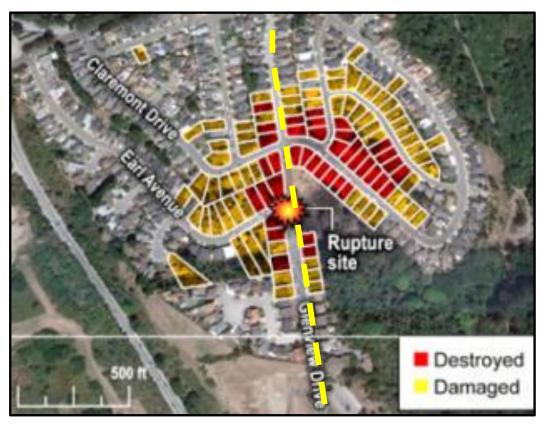


North Dakota Planning Association

serving North Dakota since 1973









Pipeline Explosion San Bruno, CA







Webinar Recording Information

This webinar is being recorded and will be accessible at www.PIPA-Info.com as well as NACo and NDACo's websites.

Within the next few days you will receive an email notice with links to the recording and to the online evaluation survey.

Your feedback is important to us. Thank you in advance for completing the webinar evaluation survey.

AICP CM Credits & ILG Credits

AICP Session Title

- Land Use & Development Planning Near Transmission Pipelines in North Dakota
- #e.22486
- Point of Contact Julie.Halliday@dot.gov 202-366-0287



- Requirements to earn 1.25 AICP Certification Maintenance Credits
 - Participant registers online <u>PIPA-Info.com</u> (then click on the link JANUARY 15, 2013, FOR NORTH DAKOTA)
 - Participant attends entire webinar

ILG Professional Development Credit

- 1 PNZ Credit on Institute of Local Government Transcript
- No fee
- No forms to complete if registered (if not registered, contact Jeff Eslinger at (800) 932-8730 or register online PIPA-Info.com – then click on the link JANUARY 15, 2013, FOR NORTH DAKOTA)



Agenda

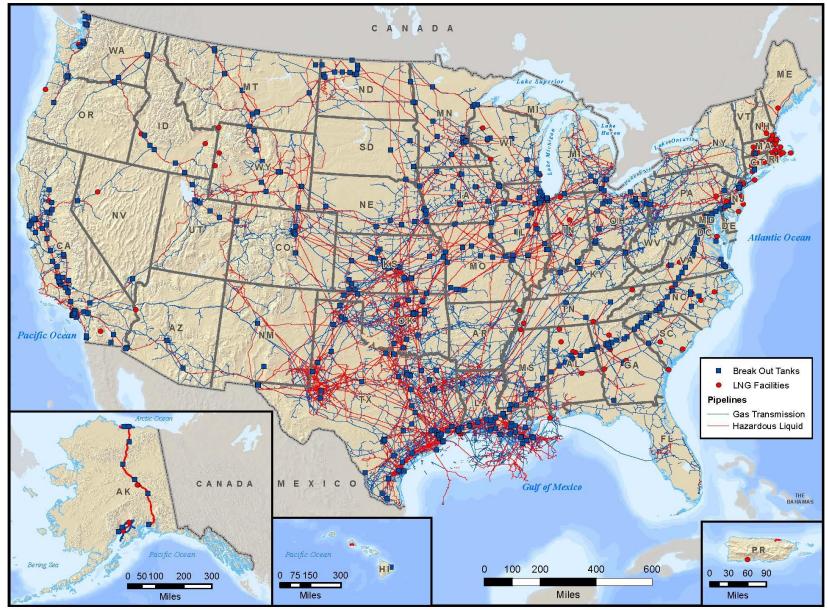
- Introductions
- Energy Pipelines 101
- Energy Pipelines in North Dakota
- Why are pipelines important?
- Who regulates pipeline safety?
- Roles local governments can play in pipeline safety?
 - Land planning near pipelines
 - Emergency response
 - Excavation damage prevention
 - Hazard mitigation planning
- PIPA recommended practice examples
- Resources for local governments

Energy Pipelines 101

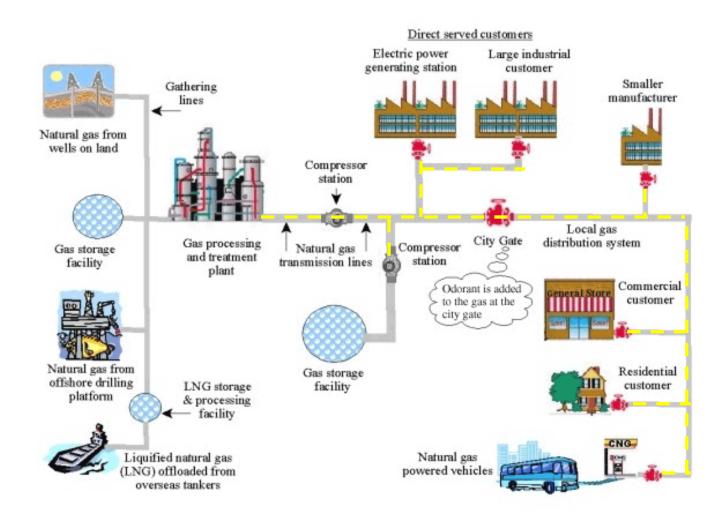
U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration

Gas Transmission and Hazardous Liquid Pipelines in the United States National Pipeline Mapping System





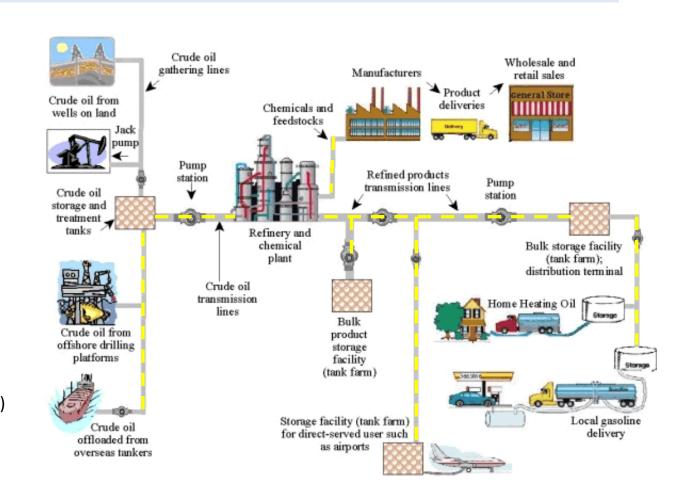
Natural Gas Pipeline Systems: From the Wellhead to the Consumer



Petroleum Pipeline Systems: From the Wellhead to the Consumer

HL products transported:

- Gasoline
- Diesel fuel
- Kerosene
- Natural gas
- Heating oil
- Propane
- Aviation gasoline.
- Jet fuel
- Carbon dioxide (CO₂)
- Ethane
- Crude oil
- Coal
- Liquefied natural gas (LNG)
- Coal slurry



Pump Station & Tank Farm



Compressor Station



Valves



City Gate Station



Odorant Tank

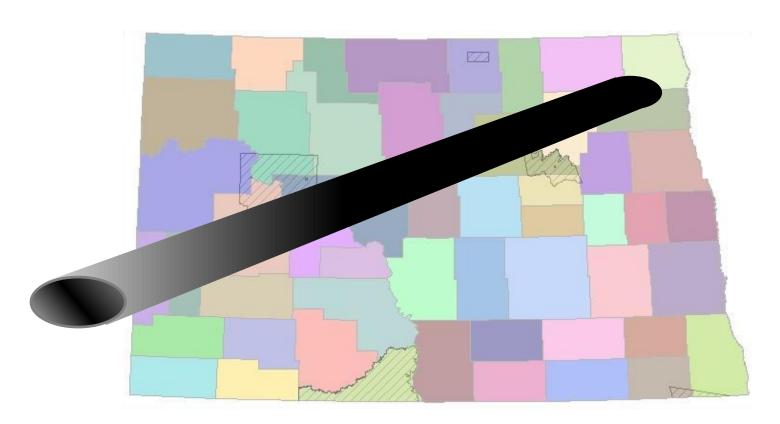


Identifying Pipelines in The Field



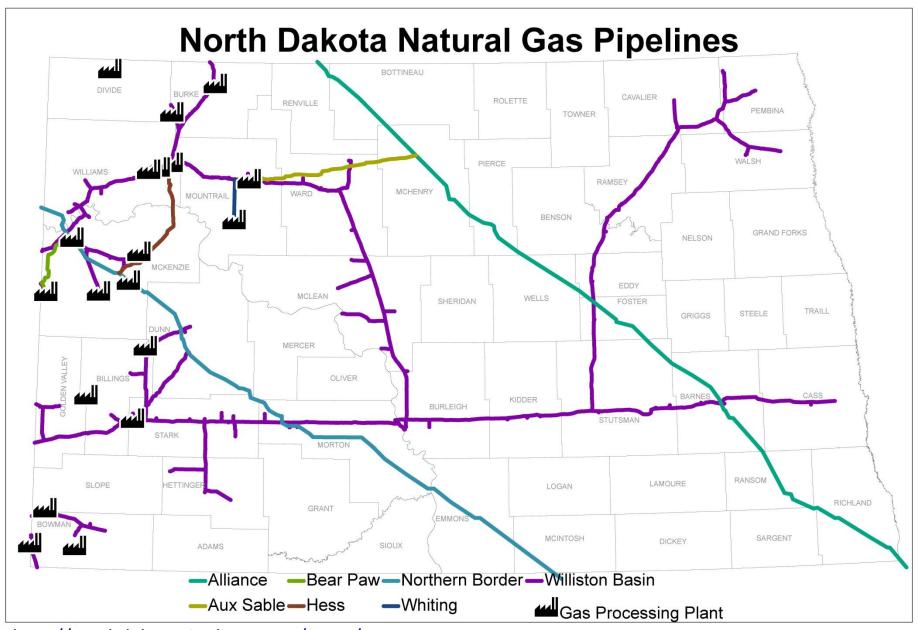
- Provides an indication of their presence (not exact location), product carried and the name and contact information of the company that operates the pipeline.
- Pipeline markers are generally yellow, black and red in color.

Energy Pipelines in North Dakota



Pipeline Mileage Overview

Pipeline System	Mileage
Hazardous liquid line mileage	2,883
Gas transmission line mileage	2,180
Gas Gathering line mileage	2
Gas distribution mileage (148,249 total services ^(A))	3,015
Total pipeline mileage	8,080

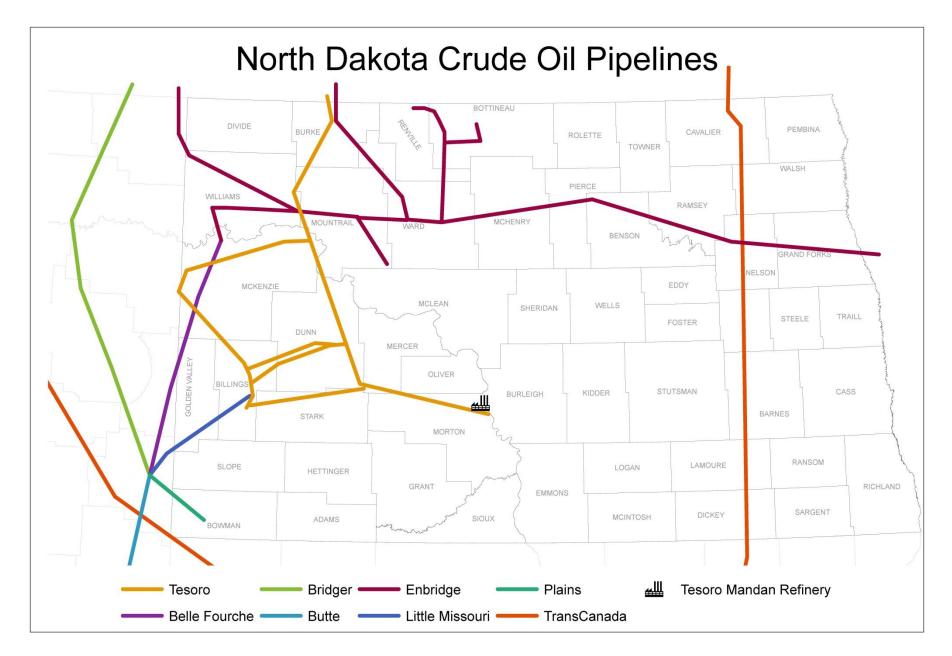


http://northdakotapipelines.com/maps/

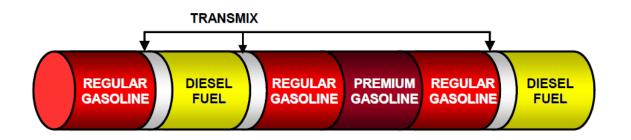
https://www.dmr.nd.gov/pipeline/assets/pdf/05202010/2010%20ND%20Natural%20Gas%20Report.pdf







Typical Sequence of Petroleum Products Flow Through A Pipeline

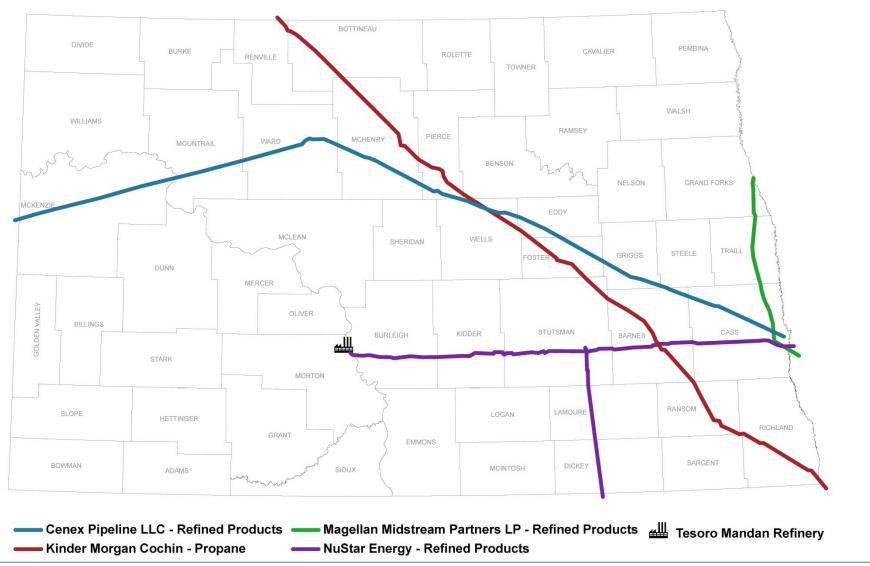




Compatible Interfaces

Transmix (Interface Material Which Must Be Reprocessed)

North Dakota Products Pipelines



ND Transmission Pipeline Mileage by County

Transmission Mileage by County								
County	Gas	Liquid	County	Gas	Liquid	County	Gas	Liquid
County	Miles	Miles	County	Miles	Miles	County	Miles	Miles
BARNES	93	146	GOLDEN VALLEY	65	39	PIERCE	25	62
BENSON	20	33	GRAND FORKS	0	61	RAMSEY	47	39
BILLINGS	93	85	GRIGGS	0	28	RANSOM	33	58
BOTTINEAU	33	82	HETTINGER	40	0	RENVILLE	5	21
BOWMAN	43	24	KIDDER	30	29	RICHLAND	66	42
BURKE	43	24	LA MOURE	0	26	SARGENT	0	27
BURLEIGH	67	36	MCHENRY	54	130	SLOPE	5	0
CASS	54	140	MCINTOSH	19	0	STARK	123	40
CAVALIER	42	7	MCKENZIE	190	312	STEELE	0	35
DICKEY	0	26	MCLEAN	102	1	STUTSMAN	94	79
DIVIDE	2	42	MERCER	37	37	TRAILL	0	32
DUNN	109	92	MORTON	156	22	WALSH	26	26
EDDY	24	26	MOUNTRAIL	86	108	WARD	87	107
EMMONS	43	0	NELSON	0	63	WELLS	26	55
FOSTER	49	53	OLIVER	0	30	WILLIAMS	80	244
			PEMBINA	33	224			

Why Are Pipelines Important? Benefits and Risks



Benefits and Risks of Pipelines

Benefits

Safe, secure, cost efficient transportation

Fuel for:

- Motor vehicles, ships and airplanes
- Heating, water heat, cooking, drying
- Commercial Bakery, dry cleaner, generators
- Industrial glass and aluminum manufacturing
- Agricultural corn dryer
- Power plants
- Military largest single buyer in the world

Feedstock for food products, pharmaceuticals, plastics and resins

Risks

- Life Safety (health effects, injury, fatality)
- Environmental
- Property Cultural/historical
- Economic disruption or cessation
- Loss of confidence in government/operator
- Fear



Serious Pipeline Incidents Nationally

All Pipeline Systems | Hazardous Liquid

Gas Transmission

Gas Gathering

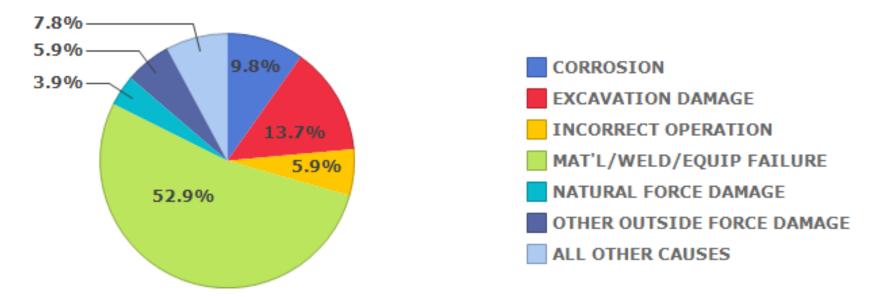
Gas Distribution

National All Pipeline Systems: Serious Incidents: 1992-2011

	Year	Number (A)	Fatalities	Injuries	Property Damage ^{(B) (C)}	Gross Barrels Spilled (Haz Liq)	Net Barrels Lost (Haz Liq) ^(D)	
	1992	69	15	118	\$7,646,053	8,977	8,657	
	1993	67	17	111	\$3,999,515	1,668	1,609	
	1994	76	22	120	\$38,927,797	711	531	
	1995	59	21	64	\$5,108,902	6,564	4,502	
	1996	63	53	127	\$13,657,499	14,315	13,248	
	1997	49	10	77	\$4,379,250	20,000	20,000	
	1998	70	21	81	\$41,641,086	11,117	11,097	
	1999	66	22	108	\$54,555,184	54,456	52,796	
	2000	62	38	81	\$6,594,791	10,981	10,981	
	2001	40	7	61	\$4,623,094	16,114	16,114	
	2002	36	12	49	\$4,729,928	0	0	
	2003	61	12	71	\$9,688,900	0	0	
	2004	44	23	56	\$9,172,317	860	860	
	2005	39	13	47	\$17,962,166	4,048	3,518	
	2006	32	19	34	\$8,058,829	4,513	4,513	
	2007	43	15	47	\$18,546,862	12,176	11,961	
	2008	38	9	57	\$47,877,871	6,755	5,755	
	2009	46	13	62	\$18,890,344	364	364	
	2010	34	19	104	\$381,117,557	3,104	3,104	
	2011	34	12	55	\$6,933,140	0	0	
	Totals	1,028	373	1,530	\$704,111,085	176,723	169,610	
	2012 YTD	28	10	54	¢10,791,853	1,500	1,245	
	3 Year Average (2009-2011)	38	15	74	\$135,647,014	1,156	1,156	
Ī	5 Year Average	37	14	.=	\$94,678,155	4,480	4,237	
	(2007-2011)				45.,0,0,100	17100	.,257	
	10 Year Average (2002- 2011)	41	15	58	\$52,297,791	3,182	3,008	
	20 Year Average (1992- 2011)	51	19	77	\$35,205,554	8,836	8,481	

Pipeline Failures – Causes

All Reported Incident Cause Breakdown
North Dakota, All Pipeline Systems, 2002-2011



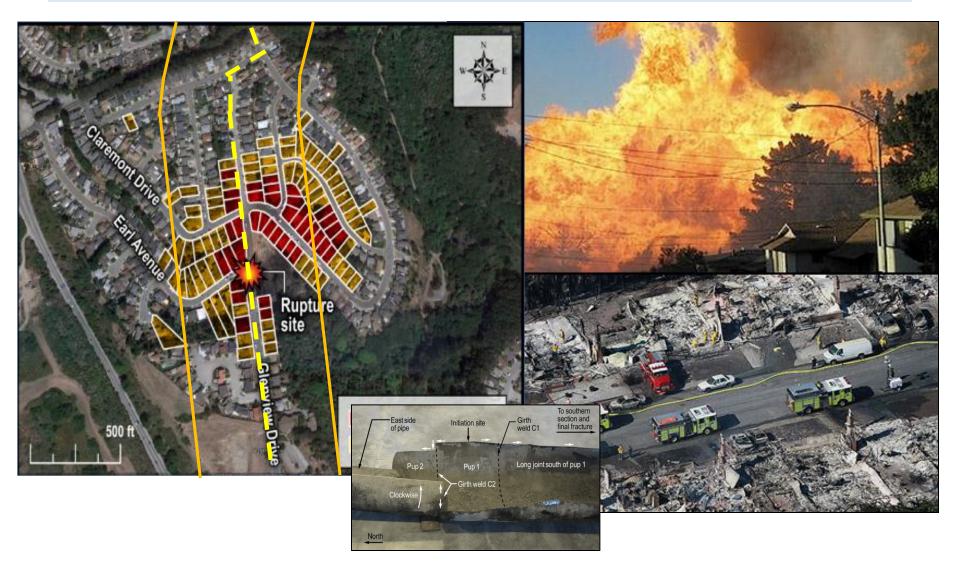
Source: PHMSA Significant Incidents Files, December 31, 2012

http://primis.phmsa.dot.gov/comm/reports/safety/ALLPSIDet 2002 2011 ND.html?nocache=6656# all

Pipeline Failures – Gas Transmission



Pipeline Failures – Gas Transmission



Natural gas transmission pipeline fire in San Bruno, CA.

Pipeline Failures - Natural Gas Distribution



Natural gas distribution explosion, Sept. 2, 2008 Fargo, ND.

Pipeline Failures – Hazardous Liquid



Figure 6. Response personnel working on wooden mats in the marsh.

National and Jurisdiction-Specific Pipeline Risk

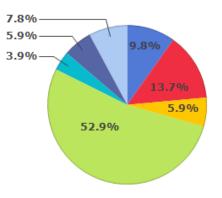


North Dakota - All Pipeline Incident Statistics

North Dakota All Pipeline Systems: All Reported Incident Details: 2002-2011

Reported Cause of Incident ^(A)	Number	%	Fatalities	Injuries	Property Damage (B) (C)	% of Property Damage
CORROSION						
EXTERNAL CORROSION	2	3.9%	0	0	\$907,306	8.1%
INTERNAL CORROSION	3	5.8%	0	0	\$49,025	0.4%
Sub Total	5	9.8%	0	0	\$956,331	8.5%
EXCAVATION DAMAGE						
OPERATOR/CONTRACTOR EXCAVATION DAMAGE	1	1.9%	0	0	\$5,889	0.0%
THIRD PARTY EXCAVATION DAMAGE	6	11.7%	1	0	\$987,935	8.8%
Sub Total	7	13.7%	1	0	\$993,824	8.8%
INCORRECT OPERATION						
OVERFILL/OVERFLOW OF TANK/VESSEL/SUMP	1	1.9%	0	0	\$3,000	0.0%
UNSPECIFIED INCORRECT OPERATION	2	3.9%	0	0	\$86,050	0.7%
Sub Total	3	5.8%	0	0	\$89,050	0.8%
MAT'L/WELD/EQUIP FAILURE						
CONSTRUCTION, INSTALLATION OR FABRICATION-RELATED	1	1.9%	0	0	\$10,070	0.0%
MANUFACTURING-RELATED	1	1.9%	0	0	\$4,194,715	37.4%
ENVIRONMENTAL CRACKING-RELATED	1	1.9%	0	0	\$1,211,000	10.8%
BODY OF PIPE	1	1.9%	0	4	\$152,000	1.3%
BUTT WELD	1	1.9%	0	0	\$355,500	3.1%
FILLET WELD	1	1.9%	0	0	\$514,905	4.6%
JOINT/FITTING/COMPONENT	1	1.9%	0	0	\$93,375	0.8%
UNSPECIFIED MAT'L/WELD FAILURE	1	1.9%	0	0	\$40,000	0.3%
PUMP/COMPRESSOR-RELATED EQUIPMENT	1	1.9%	0	0	\$5,100	0.09
THREADED CONNECTION/COUPLING FAILURE	1	1.9%	0	0	\$1,316,000	11.79
NON-THREADED CONNECTION FAILURE	3	5.8%	0	0	\$189,854	1.7%
DEFECTIVE OR LOOSE TUBING/FITTING	1	1.9%	0	0	\$229,100	2.09
OTHER EQUIPMENT FAILURE	2	3.9%	0	0	\$103,547	0.9%
UNSPECIFIED EQUIPMENT FAILURE	11	21.5%	0	0	\$113,827	
Sub Total	27	52.9%	0	4	\$8,528,993	76.1%
NATURAL FORCE DAMAGE TEMPERATURE	1	1.9%	0	0	\$5,700	0.0%
OTHER NATURAL FORCE DAMAGE	1	1.9%	0	0	\$2,572	0.0%
Sub Total	2	3.9%	0	0	\$8,272	0.09
OTHER OUTSIDE FORCE DAMAGE		3.9%	0	0	\$8,272	0.09
FIRE/EXPLOSION AS PRIMARY CAUSE	1	1.9%	0	0	\$250,250	2,29
VEHICLE NOT ENGAGED IN EXCAVATION	2	3.9%	0	0	\$230,230	2.29
Sub Total	3	5.8%	0	0	\$563,420	5.09
ALL OTHER CAUSES		51070			\$505/120	5.07
MISCELLANEOUS CAUSE	4	7.8%	0	0	\$60,864	0.5%
Sub Total	4	7.8%	0	0	\$60,864	0.5%
Totals	51	100.0%	1	4	\$11,200,754	100.0%
iviais	51	100.0%	1	4	\$11,200,754	100.0%

All Reported Incident Cause Breakdown North Dakota, All Pipeline Systems, 2002-2011

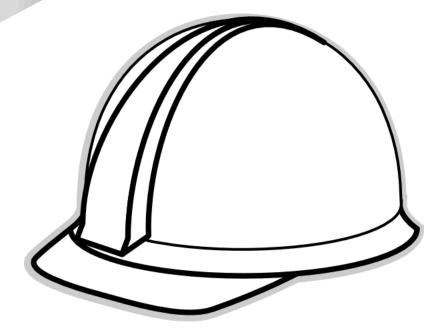


Source: PHMSA Significant Incidents Files, December 31, 2012



- **EXCAVATION DAMAGE**
- INCORRECT OPERATION
- MAT'L/WELD/EQUIP FAILURE
- NATURAL FORCE DAMAGE
- OTHER OUTSIDE FORCE DAMAGE
- ALL OTHER CAUSES

Who Regulates Pipeline Safety?



Who regulates pipelines...Federal





Office of the Secretary of Transportation (OST)



National Highway Traffic Safety Administration (NHTSA)



Office of Inspector General (OIG)



Pipeline and Hazardous Materials Safety Administration (PHMSA)



Research and Innovative **Technology Administration** (RITA)



Saint Lawrence Seaway **Development Corporation** (SLSDC)



Surface Transportation Board (STB)



Federal Railroad Administration (FRA)

Federal Motor Carrier

Safety Administration

(FMCSA)

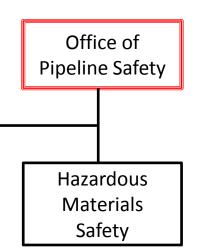


Federal Transit Administration (FTA)



Maritime Administration (MARAD)





Code of Federal Regulation Pipeline Safety - Title 49 Part 190 - 199

SUBCHAPTER D--PIPELINE SAFETY

186-189		[Reserved]
190	190.1 to 190.341	PIPELINE SAFETY PROGRAMS AND RULEMAKING PROCEDURES
191	191.1 to 191.27	TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE; ANNUAL REPORTS, INCIDENT REPORTS, AND SAFETY-RELATED CONDITION REPORTS
192	192.1 to 192.1015	TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS
193	193.2001 to 193.2917	LIQUEFIED NATURAL GAS FACILITIES: FEDERAL SAFETY STANDARDS
194	194.1 to 194.121	RESPONSE PLANS FOR ONSHORE OIL PIPELINES
195	195.0 to 195.589	TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE
196-197		[Reserved]
198	198.1 to 198.39	REGULATIONS FOR GRANTS TO AID STATE PIPELINE SAFETY PROGRAMS
199	199.1 to 199.245	DRUG AND ALCOHOL TESTING

North Dakota Pipeline Safety Regulation



North Dakota Pipeline Safety Regulation



Public Awareness

- » Consumer Information
- » Meetings & Hearings
- » Newsroom
- » Formal Notices
- » Case Search
- » Laws, Rules, Other

Jurisdiction

- » Abandoned Mine Lands
- » Auctions
- » Coal Mining

Damage Prevention

- » Electric & Gas
- » Grain
- Pipelines
- » Laws
- » Rules
- » Forms
- » Formal Notices
- » Orders
- » Consumer Information
- » Interpretive Documents

Jurisdiction: Pipelines

The Commission's statutory responsibilities concerning pipelines in North Dakota include:

- Establishment and enforcement of rates or charges and regulations by common pipeline carriers for receiving, gathering, transporting, loading, delivering, and incident storing of crude petroleum, coal or gas purchased or sold in North Dakota; and
- Enforcement of safety requirements for intrastate distribution and transmission of natural gas.

North Dakota/South Dakota Gas Pipeline Safety Operator Training Seminar Presetations

- Solem SD Pipeline Safety Program 2011
- Fahn ND Pipeline Safety
- DIMP Pilot and real Inspection Findings
- CRM Generic 2011
- Gathering Lines Presentation 3.27.2012 version from Dewitt Email
- Public Awareness and Form 21
- · Road to reauthorization
- Wayne PHMSA Part 192 Failure Investigation

Jurisdiction: Damage Prevention

The Commission enforces the requirements of the State's underground damage prevention laws as set forth in the One Call Excavation Notice System under Chapter 49 (Century Code.

North Dakota Pipeline Safety & **Excavation Damage Prevention Codes**

- North Dakota pipeline safety codes are equivalent to the Federal codes.
- Excavation Damage codes are under Chapter 49-23 One-call excavation notice system

CHAPTER 49-23 ONE-CALL EXCAVATION NOTICE SYSTEM

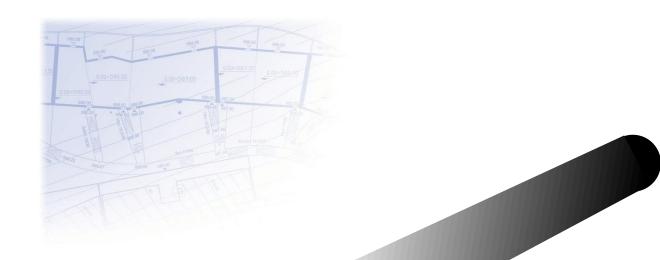
"Abandoned" means no longer in service and physically disconnected from a portion of As used in this chapter, unless the context otherwise requires: the facility or from any other facility that is in use or still carries services.

- "Board" means the board of directors of the nonprofit corporation governing the
- "Careful and prudent manner" means excavating within twenty-four inches [60.96 centimeters] of the outer edges of an underground facility located manually and marked by the owner or operator by stakes, paint, or other customary manner, and
 - supporting and protecting the uncovered facility. a. Substantial weakening of structural or lateral support of an underground facility. Penetration, impairment, or destruction of any underground protective coating, "Damage" means:

 - Impact with or the partial or complete severance of an underground facility to the extent that the facility operator determines that repairs are required. "Emergency" means a sudden, unexpected occurrence, involving a clear and
 - imminent danger, and demanding immediate action to prevent or mitigate loss of, or "Emergency responder" means a fire department, a law enforcement officer, or other
 - one one operation in which earth, rock, or other materials in or below amergency rescue service.

State & Local Government Role in Pipeline Safety

- Public Awareness of Pipelines
- Excavation Damage Prevention
- Emergency Preparedness, Response, & Recovery
- Land Use and Development Planning Authority...

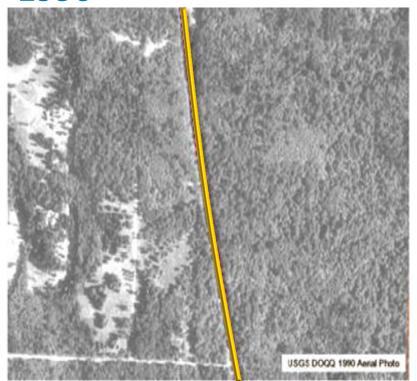


Pipeline Safety & Land Planning Authority





Growth along a transmission pipeline in Washington State...





Growth Near the Pipeline ROW



Limit the negative impacts of land development near pipelines...

Increases Likelihood of Excavation Damage



Impedes Access for Emergency Response & Safe Maintenance/Operation of the Pipeline

Increased Consequences of Failure



Choosing Better Options



About the PIPA Report

Created by a stakeholder group of ~130 participants representing a wide range of interests, organizations, and viewpoints on pipelines and community planning.

Scope: Existing Gas Transmission & Hazardous Liquid Pipelines

<u>Stakeholders:</u> Local Government, Property Developer/Owner, Pipeline Operator, Real Estate Commission

<u>Scenarios:</u> Baseline (implement in preparation for future) and New Development (Implement when use/development is proposed)

43 Recommended Practices

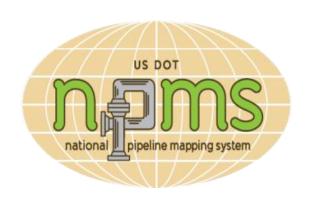


Partnering to Further Enhance Pipeline Safety
In Communities

Through Risk-Informed Land Use Planning
Final Report of Recommended Practices
November 2010



www.PIPA-Info.com

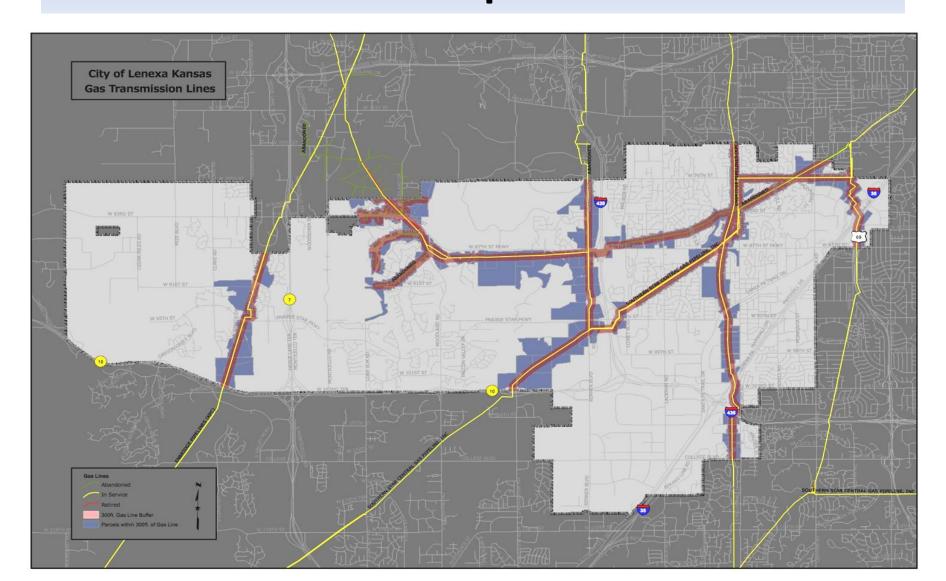


Obtain Transmission Pipeline Mapping Data



Welcome to the NPMS Public Map Viewer

Incorporate Pipeline Maps on Internal GIS Maps

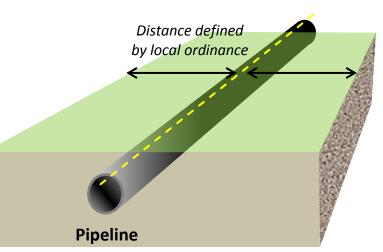


Public Map Viewer Log Out | NPMS He **Public Viewer Layer List** View pipelines by — GAS ☐ ☑ Hazardous Liquid Pipelines (scale depen LIQUID □ LNG Plants (scale dependent) □ Breakout Tanks (scale dependent) □ Other Populated Areas (scale dependent) ☐ Highly Populated Areas (scale dependen ☐ Roads, Railroads & Airports ■ World Transportation □ Boundary Lines & Names □ Shaded Relief □ World Shaded Relief Aerial PIPELINE PERSON COMMODITY COMMODITY INTERSTATE CATEGORY DESCRIPTION DESIGNATION OPERATOR OPERATOR SYSTEM NAME STATUS TO NAME CONTACT WILLISTON Keith BASIN Seifert Please refer to the User Manu 22655 INTERSTATE CREEK WILLISTON Natural Gas NATURAL GAS Y In Service (Pipeline PIPELINE SYSTEM Engineering via the Help link for guidance Manager) application. If you need addition please contact the NPMS Natio at NPMS-NR@mbakercorp.co nøms Alexander

BL05 – Consultation Zone

Local governments should define a "consultation zone" to provide a mechanism for communication between property developers/owners and operators of nearby transmission pipelines when new land uses and property developments are being planned.

Consultation Zone

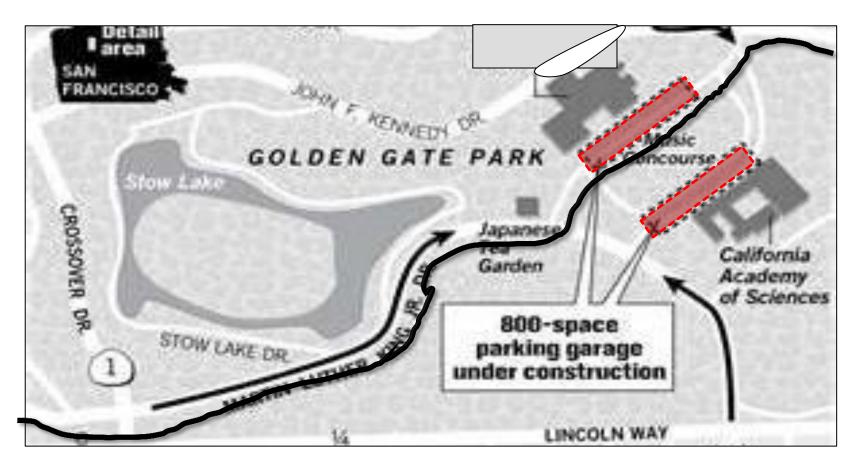


Absent site-specific information:

- Natural Gas Pipelines = 660'-1,000'
- Hazardous Liquid Pipelines = 1,000'-1,500'



ND11 – Placing New Parking Lots



Reduce Transmission Pipeline Risk through Design and Location of New Parking Lots and Parking Structures

ND22 Reduce Transmission Pipeline Risk through Design and Location of New Places of Mass Public Assembly



...Evacuation routes should...have a safe means of egress with exits located where they would not be made inaccessible by the impacts of a pipeline incident...

ND17 Reduce Transmission Pipeline Risk in New Development for Residential, Mixed-Use,



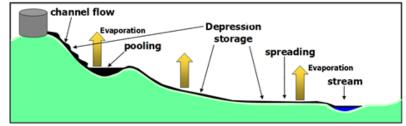
...cul-de-sac streets should not be designed crossing a transmission pipeline as the only route of ingress or egress...

ND17 Reduce Transmission Pipeline Risk in New Development for Residential, Mixed-Use, and Commercial Land Use

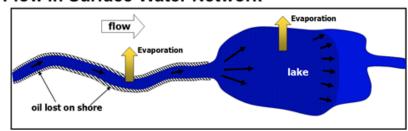
Consider:

- Locate structures away from ROW
- Design alternate escape routes
- Require more stringent fire protection e.g. automatic sprinklers, water screens, air handling/ventilation systems) and fire endurance (e.g. non-combustible construction, window limitation)
- Avoid interference with pipeline operations and maintenance
- Allow access for emergency response
- Model fire, explosion, or toxic release impacts

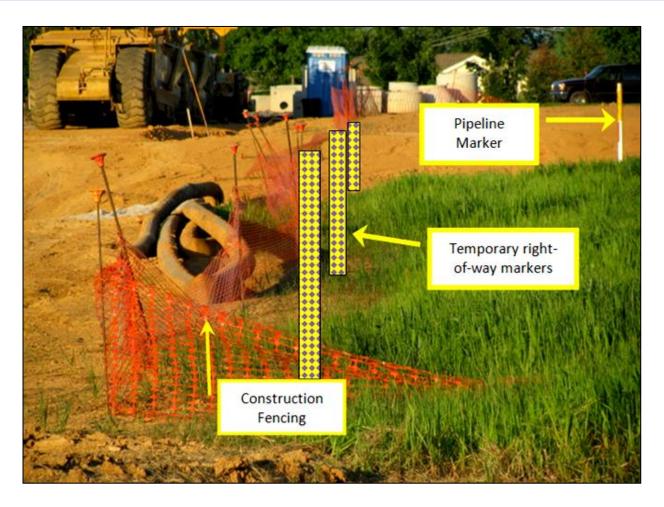
Flow Over land



Flow in Surface Water Network



ND24 Temporary Markers for Construction



Install Temporary Markers on Edge of Transmission Pipeline Right-of-Way Prior to Construction Adjacent to Right-of-Way

ND 23 Consider Site Emergency Response Plans in Land Use Development

- Access to shutoff valves
- Access for emergency response personnel/equipment
- Location/capacity of water supply/fire hydrants
- Potential ICS, triage, and staging areas



...review of existing ROW can illustrate the benefit of land planning practices & identify locations for enhance emergency preparedness...

Local Government Role & PHMSA Support

Emergency ResponseExcavation Damage Prevention



Emergency Response – Where We Are

- Communities and their emergency responders are not always aware of pipeline safety concerns. Some reasons include:
 - Catastrophic pipeline incidents are <u>low-frequency</u>, <u>high-consequence</u> events
 - Pipelines are out of sight, out of mind
- PHMSA requires pipeline operators to communicate directly with the emergency responders regarding safe and effective pipeline emergency response
 - This communication is essential and part of a larger approach to preparing emergency responders for pipeline emergencies



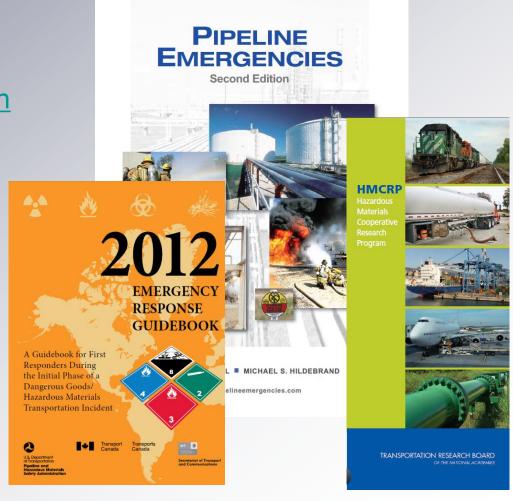
Where We're Going

- Goal: Reduce the consequences of pipeline failures by strengthening the capabilities of local emergency responders through <u>institutionalizing</u> pipeline awareness within the emergency response community.
- PHMSA has undertaken a variety of initiatives and activities to assist with accomplishing the goal:
 - Educating ourselves and the ER community by hosting/participating in pipeline ER forums
 - Building partnerships and coordinating with pipeline ER stakeholders
 - Actively communicating with the ER community via presentations at conferences and articles in trade publications
 - Creating/enhancing pipeline ER resources



PHMSA Pipeline Emergency Response Resources

- Pipeline Emergencies
 training curriculum –
 <u>www.pipelineemergencies.com</u>
- **Emergency Response Guidebook (ERG)** updated and expanded pipeline pages
- Hazardous MaterialsCooperative ResearchProgram HM15





More Information

- Visit our website at http://opsweb.phmsa.dot.gov/pipelineforum/ pipeline_emergency_response_forum/index.html
- Contact Sam Hall

Phone: 804-556-4678

Email: sam.hall@dot.gov



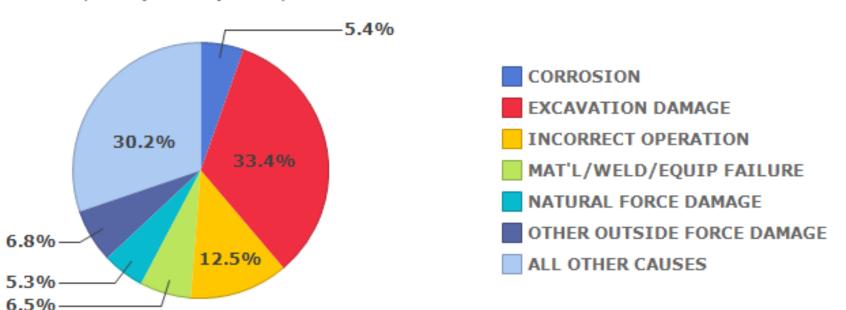
Focus on Damage Prevention: What we know

- Excavation damage is a serious threat to public safety and pipeline integrity
- Data indicates overall decrease in incidents caused by excavation damage, but still a serious threat
- Excavation damage is largely preventable
- All states have one call laws, one call centers, but state laws and programs vary considerably
- More work to do, more support needed

1203

20-Year Serious Incidents*

Serious Incident Cause Breakdown
National, All Pipeline Systems, 1992-2011



Source: PHMSA Significant Incidents Files March 30, 2012

* Serious Incidents: Pipeline Release and fatality or injury



Damage Prevention: What we're doing

- Providing Tools to build knowledge across the country
- State/local outreach: meetings, letters of support, teleconferences, support of 811, sharing of information
- Regulatory actions enforcement of one call laws
- Exemptions Congressional directives
- Grants to states
- Partnerships: States, Common Ground Alliance, Public, Trade Associations, Safety Organizations
- Seeking to expand outreach/partnerships local government, agriculture, educators



Questions/Discussion

For more information:

Annmarie Robertson Sam Hall

317-253-1622 804-556-4678

<u>annmarie.robertson@dot.gov</u> <u>sam.hall@dot.gov</u>

Resources (programs, data on pipeline facilities, incidents,

Know what's **below**.

Call before you dig.

enforcement, etc.)

http://www.phmsa.dot.gov/pipeline

http://primis.phmsa.dot.gov/comm/

Hazard Mitigation Planning & Pipelines

VDEM & PHMSA – Hazard Mitigation Plan

U.S. Department | Pipeline & Hazardous Materials | Safety Administration

Pipeline Safety Stakeholder Communications Pipeline Safety Connects Us All

Property Developer/ Owner

Pipeline Safety Advocates

Industry Contact Us

PIPA General

PIPA Audiences

PIPA Downloads

Site Pages

- About Pipelines
- Regulatory Oversight
- Safety Programs
- Public Outreach

State Pipeline

Profiles: Choose One.



Hazard Mitigation Planning for Pipelines

What is a Hazard Mitigation Plan?

State and local governments create hazard mitigation plans (HMP) to identify ways they can protect the health, safety and economic interests of their communities by reducing the impacts of both natural and man-made hazards. Hazard mitigation is any action taken to permanently eliminate or reduce the long-term risk to human life and property from hazards. It is an essential element of emergency management, along with preparedness, response and recovery.

PHMSA and Virginia Department of Emergency Management Pilot Project

In 2012, PHMSA and the Virginia Department of Emergency Management (VDEM) undertook a pilot project to determine an approach to encourage state and local governments to incorporate gas and hazardous liquid pipelines into their emergency management hazard mitigation plans. The focus of this effort is toward the inclusion of the PIPA Recommended Practices as mitigative solutions to identified pipeline hazards. The pilot initiative is supported by the ad hoc PIPA Communication Team and several pipeline operator representatives.

Pipelines are Manmade Hazards

Gas and hazardous liquid pipelines are constructed by and for pipeline companies for the transportation of gas and hazardous liquids. By the nature of the potentially hazardous products they carry, pipelines should be included in the lists of hazards that communities

consider when developing hazard mitigation plans. Knowledge of pipeline hazards can enable informed decisions to be made about how to manage the risks and develop mitigation strategies.



Pipeline manifold impacted by flooding

Natural Hazards Present Risk to Pipelines

While pipelines are often thought of as presenting risks to communities, natural hazards can impact the integrity of pipelines. Although natural hazards are cited as the cause in fewer than ten percent (10%) of pipeline incidents, the failure of a large-diameter, highpressure natural gas or hazardous liquid transmission pipeline during an earthquake or hurricane event can significantly complicate a communities' ability to respond and recover from the event.

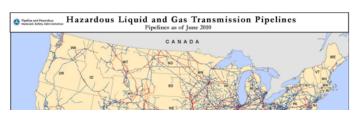
Pipelines are Critical Infrastructure

Our gas and hazardous liquid transmission pipeline systems are a vital part of the U.S. transportation and energy supply infrastructure. Airports, power generating stations, and major industries, as well as commercial businesses and residents depend on the energy and raw manufacturing products delivered via pipelines. Pipeline disruptions impact our economy, public health, and even national security.

Pipeline Hazard Mitigation Strategies

PHMSA has identified four mitigation strategies wherein state and local governments have the authority to reduce the risk of pipeline hazards:

- Pipeline awareness education and outreach,
- · Excavation damage prevention,
- · Land use and development planning near transmission pipelines, and
- · Emergency response planning for pipeline emergencies.





PHMSA in partnership with the Virginia Department of Emergency Management is developing guide materials for incorporation of pipeline hazards into state and local mitigation plans.



Valuation Matrix

Gas Transmission Pipeline Impact Worksheet						
Location:						
Hazard Type:						
	Life Safety	Structures (Property)	Environment	Cultural/Historical	Economic Disruption	Total
Rating						0
Criteria Valuation						
	Life Safety Scale	Structure Scale	Environment Scale	C and H Scale	Economic Scale	
0	no effect	no effect	no effect	no effect	no effect	
1	Class 1 location; less than 10 persons exposed	<10 structures for human occupancy exposed	Not applicable	Area contains a single feature of cultural or historical significance	Potential business disruption or cessation impacts for 1-2 local businesses	
2	Class 2 location; 10 to 19 persons exposed	10 - 26 structures for human occupancy exposed	Not applicable	Area contains 2-5 features of cultural or historical signifcance	Potential business disruption or cessation impacts for 3-20 local businesses	
3	Class 3 location; 20 - 100 persons exposed	46 or more structures for human occupancy exposed	Not applicable	Area contains >5 features of cultural or historical signifcance	Potential business disruption or cessation impacts for >20 local and regional businesses	
4	Class 4 location; >100 persons exposed	Prevalence of multi-story structures >4 stories exposed	Not applicable	Entire area is of cultural or historical signifcance	Potential business disruption or cessation impacts to regional transportation infrastructure, manufacturing, and/or energy production.	

North Dakota Multi-Hazard Mitigation Plan

5.6.8 Vulnerabilities to New and Future Development

North Dakota, particularly the western part of the state, is rich in natural resources; the development of industries related to the natural resources continues and will likely increase with recent oil discoveries. Projections estimate an oil well on every section within the oil fields served by the Bakken, Three Forks, and Sanish Formations over the next six years. New pipelines associated with the recent energy developments in the state and region are being constructed and are likely in the future.

New development may increase the number of people and facilities exposed to hazardous material releases. These industries are regulated for air and water emissions, but unless local ordinances prohibit

Page 5.6-13

State of North Dakota Multi-Hazard Mitigation Plan

January 2011

or regulate such development, the potential for hazardous material releases could increase through future development. Population increases are being seen or are expected in Barnes, Benson, Billings, Bowman, Burleigh, Cass, Grand Forks, McKenzie, Morton, Mountrail, Ransom, Rolette, Sargent, Sioux, Stark, Ward, and Williams Counties.

Resources for Local Governments

PIPA Online Resources

PIPA-info.com



▶ PIPA Downloads Site Pages

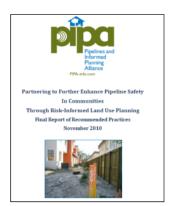
▶ PIPA Audiences

- ▶ About Pipelines
- ► Regulatory Oversight
- ▶ Safety Programs
- ▶ Public Outreach

State Pipeline Profiles:

Print

Profiles: Choose One.



Developing or building near a transmission pipeline?

The decisions you make can impact the safety of the community surrounding the pipeline.

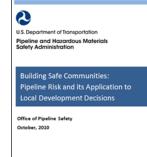
Have you consulted with the pipeline operator?

Have you considered access for pipeline maintenance and emergency response?

Is enhanced fire protection needed?

How will excavation damage to the pipeline be prevented?

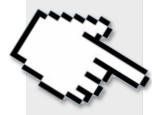
The Pipelines and Informed Planning Alliance (PIPA) has developed recommended practices to help in making decisions about what, where and how to build safely near transmission pipelines.





Information about National Pipeline Risk

Select your toolbox below to learn more.









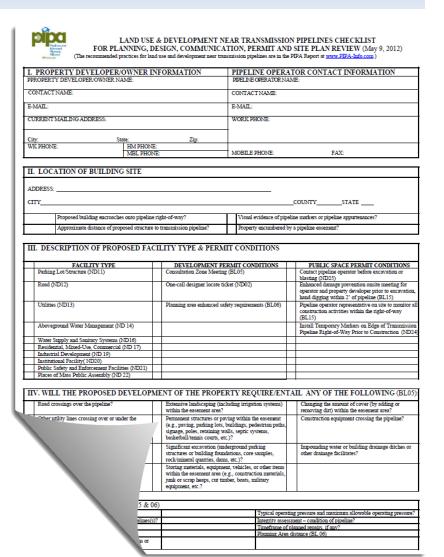


Land Use & Development near Transmission Pipelines Checklist

Similar to an Environmental Assessment Checklist

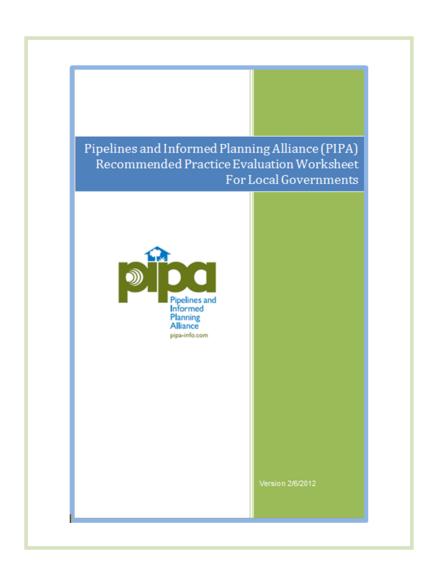
Can Be Used to:

- Facilitate Communication
- Inform Land Acquisition
- Guide Pre-Planning & Design
- Permit & Site Plan Review



PIPA RP Evaluation Worksheet for Local Governments

Perform a gap analyses comparing your community's current practices to the PIPA recommended practices.



Examples of Land Use Ordinances

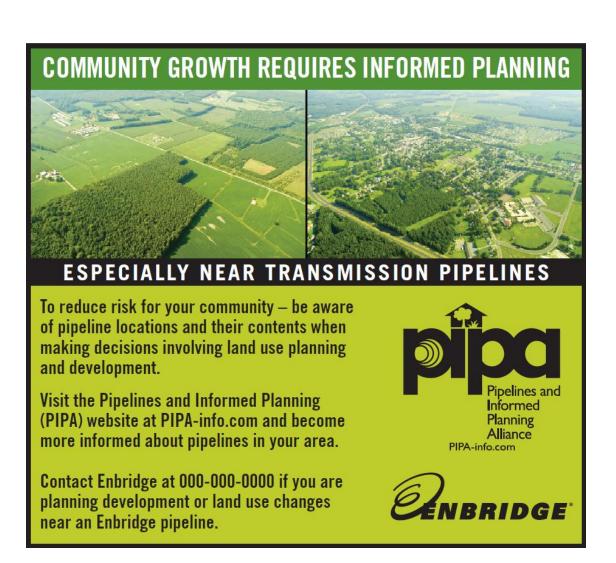
- PIPA Model
 Ordinance –
 Appendix B in the PIPA
 Report
- Municipal
 Research and
 Services
 Center of
 Washington



http://www.mrsc.org/subjects/pubsafe/transpipeords.aspx

PIPA Promotional Material

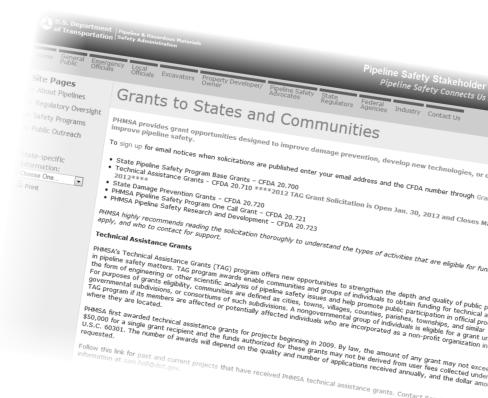




US DOT PHMSA Technical Assistance Grants

Purpose: to make grants to local communities and organizations for technical assistance related to pipeline safety issues (includes implementing PIPA RPs & enhancing hazard mitigation plans to incorporate pipelines)

- Annual grants <u>posted in January</u> and awarded in September
- Sign up for alerts when the solicitation is posted on http://www.grants.gov
- CFDA number 20.710
- Funding number DTPH56-12-SN-000001





View Previously Awarded TAG Reports



Technical Assistance Time: 11/20/2012 03:37 PM

Project Search



Advanced Search...

TAG Program

Final Reports

Library

Awards

General Spreadsheet of TAG

- Questions and
- Comments

 PHMSA
 Communications

Context

Print-Friendly

□ Log In.

Technical Assistance Grants

Hide Project Summaries

TAG Grants will be listed here.

- · Projects Starting in FY-2012
 - New! "AL City of Athens 2012 Technical Assistance Grant" (DTPH56-12--PHPT01, End FY: 2013)
 Under this grant award the City of Athens will provide a hands-on pipeline safety training and education workshop to participants.
 - New! "DC National Association of Counties Research Foundation 2012 Technical Assistant Grant" (DTPH56-12-G-PHPT02, End FY: 2013)

http://primis.phmsa.dot.gov/tag

- New! "LA Port of South Louisiana 2012 Technical Assistance Grant" (DTPH56-12-G-PHPT04, End FY: 2013)
 Under this grant award the Port of South Louisiana will develop and implement a Marine Pipeline Safety Outreach Program for all stakeholders operating along the Lower Mississippi River. Outreach includes developing a website, tri-fold guide, posters, safety calendar, and DVDs.
- New! "PA Pipeline Safety Coalition 2012 Technical Assistant Grant" (DTPH56-12-G-PHPT05, End FY: 2013)
 Under this grant award the Pipeline Safety Coalition will conduct a case study of Chester County, PA with first responders to identify first responder education and training needs specific to gas pipelines. Following the case study, recommendations will be provided to develop a core curriculum using model firefighters and a final report will be developed, with transferable results, to share with other first responders and communities.
- Newl "PA League of Women Voters of PA Citizen Education Fund 2012 Technical Assistanted 2013)

Under this grant award the League of Women Voters of PA Citizen Education Fund will provide Lehigh Valley Region of Pennsylvania regarding the role of federal, state, and local agencies in educational resources for local libraries, public forums, presentations, workshops, displays, interrwebsite resources. The project will capitalize on existing resources. Results of this project will be posted on the LWVPA website.

- New! "LA Sulphur, City of DBA/Sulphur Fire Department 2012 Technial Assistance Grant" (DTPF Under this grant award the Sulphur Fire Department will purchase three (3) handheld multi-gas det calibration unit for the detectors. The new units will replace older units and offer new technology to responding to pipeline incidents.
- New! "NC Land-of-Sky Regional Council 2012 Technical Assistance Grant" (DTPH56-12-G-PHP
 Under this grant award the Land-of-Sky Regional Council will evaluate the need to develop new of
 training metablish, conduct training throughout the three county region using good identified the



Pipeline Safety Stakeholder Communications

Pipeline Safety Connects Us All

Pipeline & Hazardous Materials Safety Administration

Home General Public

Emergency Officials

Local Excavators Officials

Property Developer/

Pipeline Safety

State

Federal Regulators Agencies Industry

Contact Us

Site Pages

- About Pipelines
- ▶ Regulatory Oversight
- Safety Programs
- Public Outreach

State Pipeline Profiles:

Choose One

Print

Community Assistance & Technical Services

The mission of the OPS Community Assistance & Technical Services (CATS) team is an ambitious one:

To advance public safety, environmental protection and pipeline reliability by facilitating clear communications among all pipeline stakeholders, including the public, the operators and government officials.

An important aim of the CATS program is to reach out to all pipeline safety stakeholders. Responsibilities of CATS managers include:

- Communicating information to help communities understand pipeline risks and improve pipeline safety and environmental protection.
- Fostering effective communications regarding pipeline safety among PHMSA, other federal agencies, state pipeline safety regulators, elected and emergency officials, pipeline operators and the public.
- Serving as "honest brokers" in facilitating permits required for safety-related pipeline repairs.

In carrying out their responsibilities, CATS program managers perform a variety of activities. These include:

- · Participating with state and regional damage prevention groups and the Common Ground Alliance to further the implementation of damage prevention best practices.
- Helping states assess their damage prevention programs and opportunities.
- Serving as designated PHMSA representatives before a wide variety of stakeholders. CATS managers routinely provide informational presentations to various stakeholder groups to broaden public awareness of our country's energy transportation pipeline systems.
- Meeting with federal, state and local regulatory agencies, and pipeline operators to facilitate timely issuance of permits necessary for conducting pipeline integrity activities.
- Providing consultation to regulators, regulated parties and other stakeholders regarding new and amended regulatory requirements.
- · Responding to public inquiries and complaints regarding pipelines and pipeline operations.

CATS managers are located within each PHMSA region. Contact information for the CATS manager for your state is noted below.

OPS Central Region

Illinois; Indiana; Iowa; Kansas; Michigan; Minnesota; Missouri; Nebraska; North Dakota; Ohio; South Dakota; Wisconsin.

Harold Winnie:

harold.winnie@dot.gov Phone: (816) 329-3800

Allan Beshore:

Allan.Beshore@dot.gov Phone: (816) 329-3811

Next Steps for Local Governments

- Locate pipelines in you jurisdiction (NPMS)
- Read the PIPA Report & Tools
- Assess your communities level of risk tolerance for land use/development near pipelines
- Put a plan in place to address your community's needs using PIPA recommended practices
- Consider pipelines in your hazard mitigation plan
- Contact the pipeline operators in your area to inform them of the actions

Questions?

AICP #e.22486 or ILG Credits

Please visit the Certification Maintenance section of APA's website (www.planning.org/cm) to claim your credits; you may use the following steps:



- (1) Login using your ID# and password.
- (2) Select My CM log
- (3) Select Add Credits
- (4) Under Browse you have the option of searching by Date, Provider, or Distance Education and using the search box to type in the name of the event or activity and clicking go
- (5) If you search Activities by Date, on the left of the calendar view, please use the "previous" and "next" options to locate the month. On the right of the calendar view, please use the "previous" and "next" options to select the year
- (6) If searching Activities by Provider, using the letters, please select the initial of the first name of the provider. From the list, then select the name of the provider
- (7) Select the "Past Events" tab to locate the event you have attended
- (8) If searching Distance Education, after selecting, you will see a list of all distance education activities. To select, click on the name of the activity
- (9) A pop-up box will appear.
- (10) Please rate, add a comment (optional), and click on the Ethics statement and answer
- (11) Click submit and the CM credits should appear in your CM log

If you have problems reporting your CM credits or have general questions about our CM program, please contact AICPCM@planning.org. APA's customer service associates are available to assist you.



No forms to complete if registered (if not registered, contact Jeff Eslinger at (800) 932-8730 or register online www.PIPA-Info.com then click on the link JANUARY 15, 2013, FOR NORTH DAKOTA)

Thank you for your time and interest in pipeline safety!

James Davenport

jdavenport@naco.org

Program Manager

Community Services

202-661-8807

National Association of Counties (NACo)

Julie Halliday

Julie.Halliday@dot.gov

Sr. Program Manager

Program Development

202-366-0287

US DOT PHMSA









North Dakota Planning Association serving North Dakota since 1973









PIPA-Info.com npms.phmsa.dot.gov

