

Slyder, Michelle

To: Nowakowski, Sonja
Subject: Regulatory Fact Sheet MT

The following is a summary off of PHMSA's website about which entity regulates which pipelines in MT. Thought it would be helpful.

✓ Regulatory Fact Sheet: Montana

The federal government establishes minimum pipeline safety standards under the U.S. Code of Federal Regulations (CFR), Title 49 "Transportation", Parts 190 - 199. The Office of Pipeline Safety (OPS), within the U. S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), has overall regulatory responsibility for hazardous liquid and gas pipelines under its jurisdiction in the United States. Pertinent regulations can be found here.

OPS is headquartered in Washington, DC, and supported through five regional offices located in Trenton, NJ; Atlanta, GA; Kansas City, MO; Houston, TX; and Denver, CO. OPS Regional Directors, Pipeline Inspectors, State Liaisons, and Community Assistance and Technical Services (CATS) managers operate from each of the five OPS regional offices.

CATS managers are available to assist the public, the media and state or local officials with inquiries concerning pipeline safety-related issues. OPS inspects, regulates and enforces interstate gas pipeline safety requirements in Montana. OPS also inspects, regulates and enforces both interstate and interstate liquid pipeline safety requirements in Montana. Through certification by OPS, the state of Montana regulates, inspects, and enforces interstate gas pipeline safety requirements. The Gas Pipeline Safety Division of the Montana Public Utilities Commission performs this work.

Montana state regulations can be found at: <http://www.psc.state.mt.us/Pipeline/>
A summary of Montana Public Service Commission enforcement actions is available here.
Here is contact information pertaining to pipelines in Montana:

Montana Public Service Commission

Department of Public Service Regulation
1701 Prospect Avenue

P O Box 202601

Helena, MT 59620-2601

Pipeline Safety Program Manager: G. Joel Tierney

Office: 406-444-6181; Fax: 406-444-7618

E-mail: jtierney@mt.gov

Office of Pipeline Safety - Western Region Office

12300 West Dakota Avenue, Suite 110

Lakewood, CO 80226
 Telephone: 720-963-3160
 Director: Chris Hoidal
 CATS managers: Tom Finch / Bill Flanders
 Direct: 720-963-3175 / 907-271-6518
 E-mail: thomas.finch@dot.gov / bill.flanders@dot.gov
Pipeline and Hazardous Materials Safety Administration
 1200 New Jersey Avenue SE
 East Building, Second Floor (PH)
 Washington D.C. 20590-0001
 Administrator: Cynthia L. Quarterman
 Assistant Administrator / Chief Safety Officer: Cynthia Douglass
 Media Contact - Director, External Communications: Patricia Klinger
 Associate Administrator for Pipeline Safety: Jeff Wiese
 Phone: 202-366-4595
Date of Revision: 11110_ljc

Pipeline Mileage Overview

Pipeline System	Mileage
Hazardous liquid line mileage	2,843
Gas transmission line mileage	3,856
Gas Gathering line mileage	0
Gas distribution mileage (289,305 total services ^(B))	6,683
Total pipeline mileage	13,382

Montana All Pipeline Systems: 2001-2010

Date	City	Operator	Cause	Sub-Cause	Fatalities	Injuries	Property Damage ^{(b), (c)}	Property Damage ^{(b), (c)}
02/04/2001	HELENA	MONTANA POWER CO	EXCAVATION DAMAGE	THIRD PARTY EXCAVATION DAMAGE	0	0	\$185,851	
06/01/2002	BUTTE	NORTHWESTERN ENERGY LLC	EXCAVATION DAMAGE	THIRD PARTY EXCAVATION DAMAGE	0	1	\$12,174	
09/20/2002	GLENDIVE	CENEX PIPELINE	EXCAVATION DAMAGE	OPERATOR/CONTRACTOR EXCAVATION DAMAGE	0	0	\$0	
06/10/2003	ALZADA	BELLE FOURCHE PIPELINE CO	MAT'L/WELD/EQUIP FAILURE	NON-THREADED CONNECTION FAILURE	0	0	\$7,786	
09/22/2004	WALKERSVILLE	NORTHWESTERN ENERGY	EXCAVATION DAMAGE	THIRD PARTY EXCAVATION DAMAGE	0	1	\$141,887	
09/15/2005	LIVINGSTON	NORTHWESTERN ENERGY	EXCAVATION DAMAGE	THIRD PARTY EXCAVATION DAMAGE	0	1	\$585,069	
04/08/2007	BUTTE	NORTHWESTERN ENERGY	ALL OTHER CAUSES	UNKNOWN CAUSE	0	1	\$129,751	
10/09/2007	BILLINGS	CONOCOPHILLIPS PIPE LINE CO.	CORROSION	EXTERNAL CORROSION	0	0	\$18,511	
05/18/2008	BRIDGER	KINDER MORGAN PIPELINES (USA) INC	MAT'L/WELD/EQUIP FAILURE	NON-THREADED CONNECTION FAILURE	0	0	\$436,034	
08/08/2008		BRIDGER PIPELINE LLC	ALL OTHER CAUSES	MISCELLANEOUS CAUSE	0	0	\$19,988	
11/10/2008	SAVAGE	WILLISTON BASIN INTERSTATE PIPELINE CO	EXCAVATION DAMAGE	OPERATOR/CONTRACTOR EXCAVATION DAMAGE	0	1	\$36,496	
03/05/2009	BOZEMAN	NORTHWESTERN ENERGY LLC	NATURAL FORCE DAMAGE	EARTH MOVEMENT	1	0	\$2,549,871	
11/26/2009	BILLINGS	CONOCOPHILLIPS	MAT'L/WELD/EQUIP FAILURE	JOINT/FITTING/COMPONENT	0	0	\$42,552	
12/13/2009	BILLINGS	CONOCOPHILLIPS	MAT'L/WELD/EQUIP FAILURE	BODY OF PIPE	0	0	\$2,912,261	

Montana All Pipeline Systems: 2001-2010

Date	City	Operator	Cause	Sub-Cause	Fatalities	Injuries	Property Damage (B) (C)	Property Damage (B) (C)
05/06/2010	COLUMBIA FALLS	NORTHWESTERN ENERGY LLC	EXCAVATION DAMAGE	THIRD PARTY EXCAVATION DAMAGE	1	0	\$207,600	\$207,600
11/23/2010		KINDER MORGAN PIPELINES (USA) INC	MAT'L/WELD/EQUIP FAILURE	OTHER EQUIPMENT FAILURE	0	0	\$187,500	\$187,500
Totals					2	0		

Transmission Mileage by County

County	Gas Miles	Liquid Miles	%
Beaverhead	22	0	0.3%
Big Horn	124	78	3.0%
Blaine	194	0	2.9%
Broadwater	1	44	0.6%
Carbon	232	133	5.4%
Carter	129	79	3.1%
Cascade	71	171	3.6%
Chouteau	120	87	3.0%
Custer	67	43	1.6%
Dawson	124	98	3.3%
Deer Lodge	24	0	0.3%
Fallon	139	87	3.3%
Fergus	39	57	1.4%
Flathead	84	0	1.2%
Gallatin	68	43	1.6%
Glacier	219	271	7.3%
Golden Valley	12	85	1.4%
Granite	58	27	1.2%
Hill	71	47	1.7%
Jefferson	74	6	1.1%
Judith Basin	0	205	3.0%
Lewis and Clark	260	53	4.6%
Liberty	28	0	0.4%
Madison	38	0	0.5%
McCone	23	0	0.3%
Missoula	149	32	2.7%
Musselshell	0	31	0.4%
Park	31	31	0.9%
Phillips	42	0	0.6%
Pondera	68	129	2.9%
Powder River	22	1	0.3%
Powell	81	37	1.7%
Prairie	45	30	1.1%
Ravalli	35	0	0.5%

Montana All Pipeline Systems: 2001-2010

Date	City	Operator	Cause	Sub-Cause	Fatalities	Injuries	Property Damage (B) (C)	C (S)
	Richland		66	98			2.4%	
	Roosevelt		121	37			2.3%	
	Rosebud		79	42			1.8%	
	Sanders		0	22			0.3%	
	Sheridan		0	32			0.4%	
	Silver Bow		35	0			0.5%	
	Stillwater		101	111			3.1%	
	Sweet Grass		72	35			1.6%	
	Teton		52	57			1.6%	
	Toole		182	45			3.3%	
	Treasure Valley		7	31			0.5%	
	Valley		198	0			2.9%	
	Wheatland		46	97			2.1%	
	Wibaux		63	61			1.8%	
	Yellowstone		132	267			5.9%	

Stakeholder Communications

PHMSA Pipeline Safety Program

Serious Pipeline Incidents By Cause

This report is a sub-report of the PHMSA Serious Pipeline Incidents report. As such, it represents only Serious Incidents ^(A) over the time period and pipeline system specified.

The data source for this table is the PHMSA Filtered Incident Files.^{(1) (2) (3)}

Where appropriate, the table columns can be sorted by clicking the corresponding column header.

More Pipeline Incidents and Mileage Reports are available.

[All Pipeline Systems](#) [Hazardous Liquid](#) [Gas Transmission](#) [Gas Gathering](#) [Gas Distribution](#)

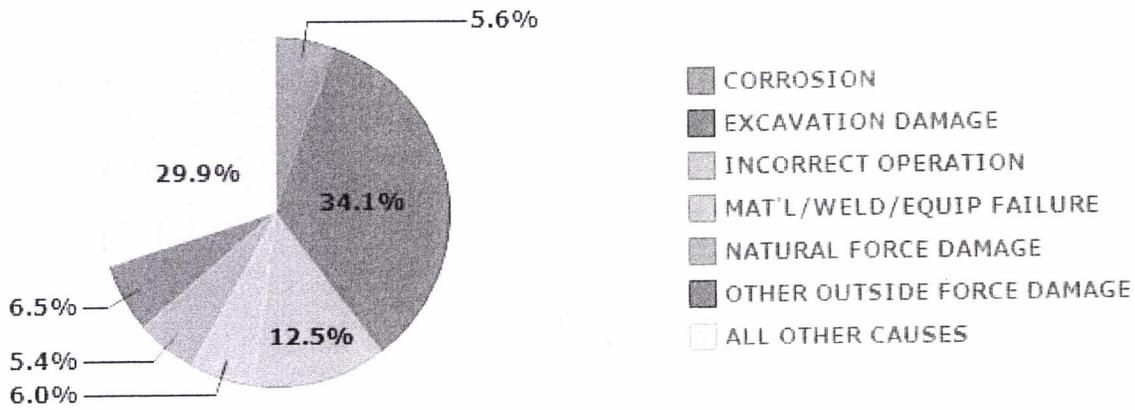
National All Pipeline Systems: Serious Incident Details: 1991-2010

Reported Cause of Incident ^(B)	Number (C)	%	Fatalities	Injuries	Property Damage (D) (E)	% of Property Damage
CORROSION						
EXTERNAL CORROSION	49	4.5%	11	71	\$13,145,943	2.1%
INTERNAL CORROSION	7	0.6%	13	7	\$44,541,952	7.2%
UNSPECIFIED CORROSION	4	0.3%	1	11	\$232,850	0.0%
Sub Total	60	5.6%	25	89	\$57,920,746	9.4%
EXCAVATION DAMAGE						
OPERATOR/CONTRACTOR EXCAVATION DAMAGE	36	3.3%	1	56	\$5,122,186	0.8%
THIRD PARTY EXCAVATION DAMAGE	325	30.4%	148	492	\$123,113,031	19.9%
UNSPECIFIED EXCAVATION DAMAGE	3	0.2%	4	5	\$1,398,776	0.2%
Sub Total	364	34.1%	153	553	\$129,633,994	21.0%
INCORRECT OPERATION						
DAMAGE BY OPERATOR OR OPERATOR'S CONTRACTOR	2	0.1%	1	1	\$32,415	0.0%
INCORRECT INSTALLATION	1	0.0%	0	1	\$80,160	0.0%
OTHER INCORRECT OPERATION	6	0.5%	1	13	\$37,857	0.0%
UNSPECIFIED INCORRECT OPERATION	124	11.6%	17	170	\$23,327,734	3.7%
Sub Total	133	12.4%	19	185	\$23,478,166	3.8%
MAT'L/WELD/EQUIP FAILURE						
ENVIRONMENTAL CRACKING-RELATED	1	0.0%	0	3	\$608,914	0.1%
BODY OF PIPE	5	0.4%	1	11	\$1,164,039	0.1%
PIPE SEAM	1	0.0%	2	7	\$3,651,700	0.5%
UNSPECIFIED PIPE BODY OR SEAM	1	0.0%	0	2	\$4,126,708	0.6%
MECHANICAL FITTING	1	0.0%	1	1	\$0	0.0%
JOINT/FITTING/COMPONENT	6	0.5%	2	5	\$1,279,487	0.2%
OTHER PIPE/WELD/JOINT FAILURE	1	0.0%	0	1	\$138,500	0.0%
MALFUNCTION OF CONTROL/RELIEF EQUIPMENT	3	0.2%	1	3	\$72,875	0.0%
THREADED CONNECTION/COUPLING FAILURE	4	0.3%	0	4	\$1,908,151	0.3%
NON-THREADED CONNECTION FAILURE	3	0.2%	0	3	\$503,603	0.0%
OTHER EQUIPMENT FAILURE	1	0.0%	0	1	\$7,418	0.0%
UNSPECIFIED MAT'L/WELD/EQUIP FAILURE	37	3.4%	3	55	\$8,803,381	1.4%
Sub Total	64	6.0%	10	96	\$22,264,781	3.6%
NATURAL FORCE DAMAGE						
EARTH MOVEMENT	31	2.9%	8	55	\$12,982,838	2.1%
HEAVY RAINS/FLOODS	1	0.0%	0	1	\$118,239	0.0%
LIGHTNING	1	0.0%	4	1	\$0	0.0%
TEMPERATURE	22	2.0%	5	32	\$2,246,767	0.3%
HIGH WINDS	1	0.0%	1	0	\$0	0.0%
UNSPECIFIED NATURAL FORCE DAMAGE	2	0.1%	0	2	\$5,242,377	0.8%
Sub Total	58	5.4%	18	91	\$20,590,223	3.3%
OTHER OUTSIDE FORCE DAMAGE						
FIRE/EXPLOSION AS PRIMARY CAUSE	1	0.0%	0	2	\$677,041	0.1%
VEHICLE NOT ENGAGED IN EXCAVATION	46	4.3%	15	48	\$6,706,588	1.0%
ELECTRICAL ARCING FROM OTHER EQUIPMENT/FACILITY	1	0.0%	0	3	\$86,175	0.0%
PREVIOUS MECHANICAL DAMAGE	1	0.0%	0	1	\$903,809	0.1%
INTENTIONAL DAMAGE	5	0.4%	3	8	\$1,760,853	0.2%
UNSPECIFIED OUTSIDE FORCE DAMAGE	15	1.4%	9	13	\$1,744,309	0.2%
Sub Total	69	6.4%	27	75	\$11,878,779	1.9%
ALL OTHER CAUSES						
MISCELLANEOUS CAUSE	271	25.4%	95	384	\$118,294,352	19.2%
UNKNOWN CAUSE	48	4.5%	31	110	\$232,053,932	37.6%
Sub Total	319	29.9%	126	494	\$350,348,285	56.8%
Totals	1,067	100.0%	378	1,583	\$616,114,976	100.0%

Export Table

Serious Incident Cause Breakdown

National, All Pipeline Systems, 1991-2010

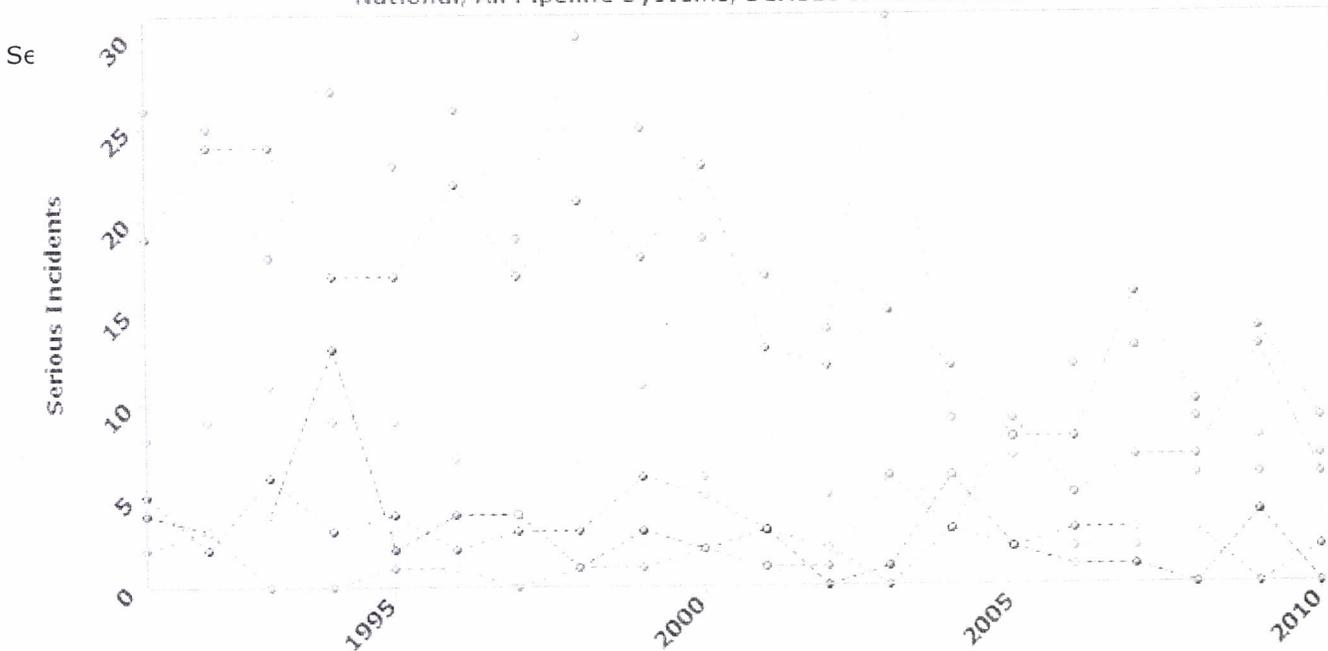


Source: PHMSA Significant Incidents Files July 1, 2011

date may not appear in these reports due to the 30-day reporting period allowed by PHMSA regulation.

PHMSA Gas Distribution Flagged Incidents File - July 1, 2011. Note: Incidents occurring up to 30 days prior the Incident File source

National, All Pipeline Systems, Serious Incidents 1991-2010

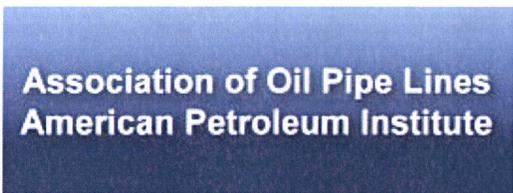


Source: PHMSA Significant Incidents Files July 1, 2011

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

Source Data

Export Table



June 2007

Summer 2007 - www.inthepipe.org

VOLUME 1 ISSUE 2

HOME

News & Developments

Recent News

Industry Focus

Commentary

Company Spotlight

Pipeline Safety

Fuels/Biofuels

Technology/R&D

Policy & Regulatory Focus

Congress

Federal Agencies

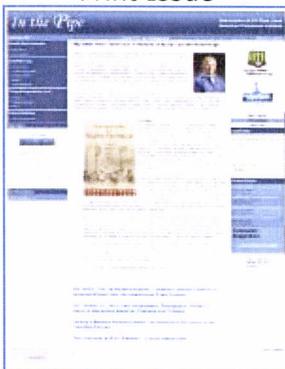
States

Data & Statistics

Pipe Line Statistics

Current Issue

Print Issue



Archived Issues

2006 Archives

Lessons on Damage Prevention from the PPTS

by Cheryl Trench

Damage caused by excavation or other mechanical impacts to a pipeline is a core focus of pipeline safety efforts. For liquids pipelines, these incidents, while few in number, account for some of the worst consequences. This article uses information developed in the industry's voluntary spill reporting system, the Pipeline Performance Tracking System (PPTS), to examine some of the characteristics of these incidents. PPTS, which first began collecting data in 1999, has allowed the industry to target its prevention strategies for these and other types of pipeline releases.

Third Party Damage in Hazardous Liquids Pipeline Releases

As shown in the table below, pipeline failures caused by damage from parties unrelated to the pipeline operator ("third party damage") accounted for only 6% of the incidents recorded in PPTS from 1999-2005, but they accounted for far greater shares of the high consequence incidents. The incidents tend to be larger, and they are disproportionately associated with death and injury. Since 90% of these incidents occur along the right-of-way, not in a fenced facility, they put the public and others not associated with the pipeline at risk.

Third Party Damage's Role in Hazardous Liquids Pipeline Incidents, 1999-2005

Third Party Damage Share of	
All incidents	6%
Total barrels released	27%
Fatalities	57%
Injuries	39%
Incidents involving a release of 50 barrels or more	23%
Incidents involving a release of 2,200 barrels or more (largest 2%)	29%

Who Does the Damage?

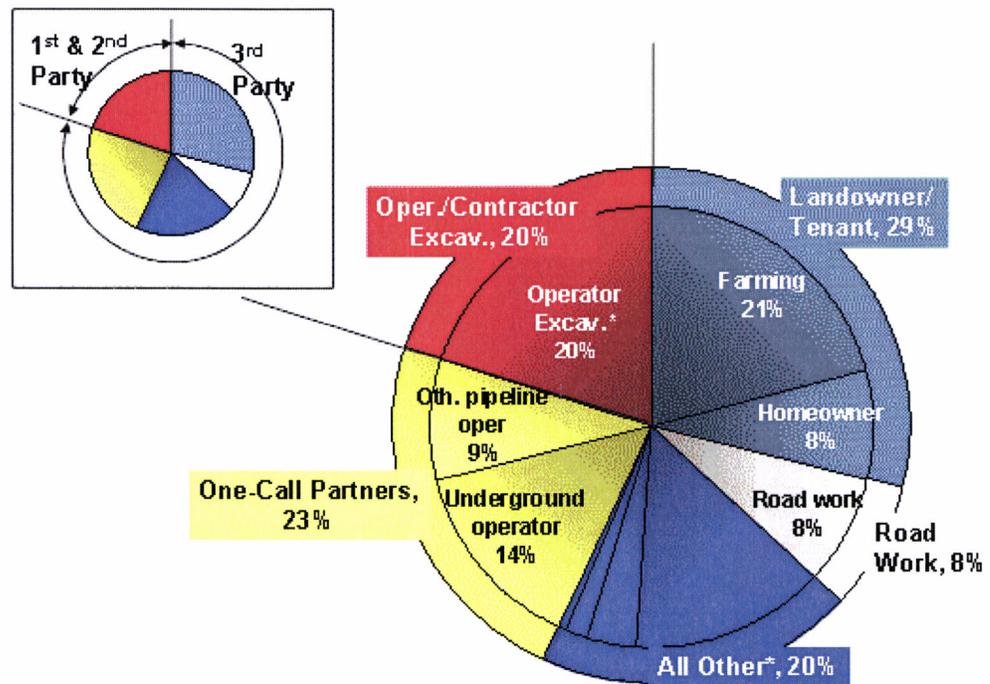
The industry has historically referred to these incidents as "third party damage," with the thought that persons not involved with operating or maintaining the pipeline -- farmers, homeowners, construction crews and excavators, people who in the course of their normal activities may come in contact with a pipeline -- were causing the damage.

When it developed the survey for PPTS, the oil pipeline industry also recognized that similar incidents were caused by operators ("first party") and their contractors ("second party") that damaged the pipeline by excavation, digging and other impacts. A release caused by the pipeline operator or its contractor damaging the pipeline is classified as operator error in PPTS. PPTS data have confirmed since the outset that these operator and contractor

incidents are an important part of the picture, as discussed below. Any prevention strategy will fail if it does not include the practices of the operator and its contractors as a target.

The shares of incidents caused by different excavation groups – in PPTS terms, “damaging parties” – presented new insight in targeting prevention strategies. For instance, farming activities cause more incidents than road work or other construction work. The recognition of the importance of farming activities led some operators to redirect prevention outreach especially in farming regions, holding county-by-county open meetings. The homeowner category is particularly important because the people doing the work may be less informed about the dangers of digging around a pipeline, or even to the presence of underground pipelines, than trained workers might be.

**Who Does the Damage?
Share of Incidents by Excavation Group, PPTS 1999-2005**



*"All Other" is residential/commercial development (4%), waterway activity (2%) and rail (1%), and activities that did not fit into other categories (14%).

[1] These details are based on a subset of incidents on which extra detail is collected: those involving releases of 5 barrels or more, or ones involving death, injury, fire or explosion.

Because entities and individuals performing excavation tasks cannot know where underground facilities are located, one-call systems provide a central communication point for people who are going to excavate or dig to get information from the underground operators in the area about the exact location of the pipelines and other facilities. These state-by-state systems are paid for by the underground operators – liquids pipelines, gas transmission pipelines, gas distribution systems (mains and service lines), telecommunications and cable companies, etc. -- who are required by law to participate.

- Prior to beginning work, the excavator calls the one-call center, which in turn informs the underground operators in the area of the excavation plan. Each operator evaluates the dig location and either determines that its facility is outside of the affected area, or marks the exact location of the line. Liquids operators customarily communicate directly with the excavator.

One of the biggest new insights from PPTS was the number of incidents caused by entities that are actually involved in one-call programs. In the graph above, "one-call partners" include the types of operators who pay for one-call systems, the very entities that receive requests and send crews to mark the line. As shown, these types of entities actually caused 23% of the excavation damage incidents over the 1999-2005 period. The graph further illustrates that almost 10% were caused by "other pipeline operators" – gas transmission and liquids pipeline operators. In fact, some of the liquids operators could be participants in PPTS who hit another PPTS operator in the shared right-of-way. The fact that these operators who have common experience and common information, who are each developing prevention strategies, are also hitting their neighbors' lines is one of many demonstrations that prevention is a complex issue.

Finally, the graph illustrates the role of operators and their contractors in these excavation-related incidents. In these, the PPTS operator reporting the incident or its contractor has damaged its own pipeline. They represent 20% of all excavation damage incidents – a number that PPTS participants are looking to reduce. As noted, PPTS records these incidents as "operator error." Again, the pipelines are actively engaged in fostering safety culture, and developing prevention strategies, so their involvement in these releases is a matter of concern to the industry.

The relatively frequent occurrence of these damage incidents caused by operators and their contractors has made them a high priority with the Pipeline Leadership. One element of prevention efforts is a new focus on managing contractors who are digging on the right-of-way, because PPTS shows that 70% of the operator/contractor incidents involve contractors. These figures lead us to question whether the incidents caused by other liquids pipeline and gas transmission operators also have high contractor involvement.

For the incidents involving third parties, PPTS also records whether the excavator notified one-call of the planned activity. Of significance is the fact that one-call was not used in more than 70% of the incidents. One-call partners used the one call system more frequently than other excavator types involved in releases, at nearly 60% of the incidents. In contrast, only 5% -- 2 out of 42 -- incidents involving landowners (farmers and homeowners) included a one-call notification. The data suggest that even where one-call is used, a misstep may cause a release, another confirmation of the complexity of damage prevention.

Use of One-Call by Damaging Party Category, 1999-2005						
Damaging Party Type	Number			Share		
	No	Yes	Total	No	Yes	Total
Landowner	40	2	42	95%	5%	100%
One-Call Partner	13	19	32	41%	59%	100%
Road Constr/Maint	10	3	13	77%	23%	100%

All Other Parties	19	9	28	68%	32%	100%
Grand Total	82	33	115	71%	29%	100%

Landowner includes farming activities, homeowners and tenants, and those working for them; One-call Partner includes gas transmission, gas distribution, electric utility, telecommunications and cable; All Other Parties includes residential/commercial development, waterway activities, rail and "other."

PPTS also records information about depth of cover for incidents involving third party damage. Another insight gained from this information is that many of the incidents do not involve a shallowly buried pipe. For instance, in 37% of the incidents, more than 36 inches of soil covered the line. For incidents involving one-call partners, more than two-thirds occurred on lines that were buried deeper than 36 inches. Using this information, an operator should take more care to learn more about the excavation activity during the outreach after a one-call, making sure to be aware of whether a pipeline or telecommunication company was planning to use techniques such as drilling or boring, which tend to have a deeper penetration into the soil. In contrast, the landowner incidents tended to be shallower, with just 7% occurring at depths greater than 36 inches.

PPTS has allowed operators to hone their damage prevention activities with good results: incidents involving third party damage fell by 57% over the period 1999-2005. Compare this record with the much-touted decline in corrosion-related incidents, which fell by 63% -- only barely more rapidly -- over the same period. Even so, because the data demonstrate that these incidents have high consequences that often involve impacts to the public, communities and infrastructure, the industry has no choice but to continue to develop more effective strategies for prevention.

Cheryl Trench, President, Allegro Energy Consulting, consults with industry and government on a variety of issues relating to pipeline safety, including the Pipeline Performance Tracking System.

[PRINTER FRIENDLY VERSION]

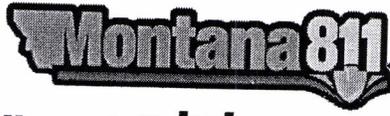
LETTERS

There are no letters for this article. To post your own letter, click Post Letter.

[POST LETTER]

Created with [eNewsBuilder](#)

MUCC



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

Montana Underground Utility Damage Study 2011 (First Half)

Synopsis

Overall reported cost of damages caused by excavation are down by 31% for the first half of 2011 compared to same period in 2010, with incidents reported down by 34%. Most of the cost of damages is reportedly caused by contractors 60.3% compared to homeowners 39.7% comparable to the same period in 2010. Contractors also account for most of the reporting at 60% of reports submitted.

A portion of the overall decline can be credited to the decline in excavation which is indicated by the decrease in locate requests, however that amount is only down by 6% for the first half of 2011 compared to the same period in 2010. I believe the decrease in damage is good news, especially with the late season start and the rush to get jobs completed.

However, the percentage of damage caused by excavations without locates are up by 11% and we actually have more damage caused by no-locates 59% than by damage with locates 41%. The percentage of incidents with out locates caused contractors has mostly stayed the same. The percentage of incidents with out locates by homeowners has increased significantly. Most of the damage with out locates were caused by homeowners—72% of them. This is an increase of 36% over last year. This may indicate we need to increase our promotion to that segment of the excavators.

Interestingly the percentage of damage by contractors and homeowners are nearly the same for 2011 as 2010.

- ◇ \$63,946.63 - in repair costs
\$92,300.42 (2010 1st Half)
- ◇ 30 or 41% - had locates requested and done.
67 or 52% (2010 1st Half)
- ◇ 73 — Useable Damage Reports Received
110 (2010 1st Half)
- ◇ 43 or 59% - had not requested a locate
53 or 48% (2010 1st Half)

Damage By Contractor or Homeowner							
	<u>Number of Reports</u>	<u>Percent of Damage</u>	<u>Repair Cost</u>	<u>Percent of Repair Cost</u>	<u>Had Locates</u>	<u>Did not have locates</u>	<u>% of No Locates</u>
Contractor	44	60.3%	\$40,464.18	63.3%	28	15	34.1%
2010	65	59.1	58,689.95	63.6	43	22	33.8
Homeowner	29	39.7%	\$23,322.71	36.5%	1	28	96.6%
2010	45	40.9	33,610.47	36.4	14	34	68.9

Study completed by:

Clint Kalfell, Montana811, PO Box 117, Park City, MT 59063; 406-442-3070; clint.kalfell@Montana811.org

Understandings:

Study Includes Reports received as of August 15, 2011
Only 5 companies provided useful information.
Consistence of data is good for basic information—Date, location, type of facility, if a locate was requested or not. Often missing is the reason why it happened. It wasn't always clear if the party responsible for the damage was a contractor or homeowner. I distinguished the best I could.