2014 State Damage Prevention Program Grants Final Report Funding Opportunity Number: DTPH56-13-SN-000001 CFDA Number: 20.720

Award Number: DTPH5614GPPS10 Project Title: Minnesota Department of Pipeline Safety State Damage Prevention Grant Date Submitted: November 20, 2015 Submitted by: Jon Wolfgram

Specific Objective(s) of the Agreement

- Develop and implement methods for effective communication
- Foster support and partnership with stakeholders
- Reviewing the adequacy of internal performance measures
- Support a Damage Prevention Education Program for industry stakeholders
- Support Public Awareness and Stakeholder Education
- Resolving disputes to define State authority's role
- Foster and promote the use of improving technologies
- Review the effectiveness of Damage Prevention Programs

Workscope

Article III. Specific Objective(s) of the Agreement

Under the terms of this grant agreement, the Grantee will address the following elements listed in 49 U.S.C. § 60134 (b) through the actions it has specified in its Application.

- Element 1 (Effective Communications): Participation by operators, excavators, and other stakeholders in the development and implementation of methods for establishing and maintaining effective communications between stakeholders from receipt of an excavation notification until successful completion of the excavation, as appropriate.
- Element 2 (Comprehensive Stakeholder Support): A process for fostering and ensuring the support and partnership of stakeholders, including excavators, operators, locators, designers, and local government in all phases of the program.
- Element 3 (Operator Internal Performance Measurement): A process for reviewing the adequacy of a pipeline operator's internal performance measures regarding persons performing locating services and quality assurance programs.
- Element 4 (Effective Employee Training): Participation by operators, excavators, and other stakeholders in the development and implementation of effective employee training programs to ensure that operators, the one-call center, the enforcing agency, and the excavators have partnered to design and implement training for the employees of operators, excavators, and locators.
- Element 5 (Public Education): A process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities.
- Element 6 (Dispute Resolution): A process for resolving disputes that defines the State authority's role as a partner and facilitator to resolve issues.
- Element 7 (Enforcement): Enforcement of State damage prevention laws and regulations for all aspects of the damage prevention process, including public education, and the use of civil penalties for violations assessable by the appropriate State authority.

- Element 8 (Technology): A process for fostering and promoting the use, by all appropriate stakeholders, of improving technologies that my enhance communications, underground pipeline locating capability, and gathering and analyzing information about the accuracy and effectiveness of locating programs.
- Element 9 (Damage Prevention Program Review): A process for review and analysis of the effectiveness of each program element, including a means for implementing improvements identified by such program reviews.

Accomplishments for the grant period (Item 1 under Agreement Article IX, : "A
comparison of actual accomplishments to the objectives established for the period.")

Objective	Accomplishments (approximate numbers
	based on grant period as of report date)
Enforcement actions follow-up collections – specific to SDP Grant	25 Damage Prevention investigations and 18 One Call complaint cases have been opened, with 17 violations cited as a result of investigations funded by the SDP Grant.
In-office/Field investigations and research	During the grant period, conducting damage prevention field investigations continued to be efficient through the enhanced use of computerized tablets (Apple IPad's) using GIS software (ARCGIS) and application software. This allows on-site entry of descriptive information, photos, GPS coordinates into the GIS software which contains geographic mapping, topographic as well interstate pipeline locations.
	Intrastate gas pipeline operators are selected for specialized damage prevention inspections based on risk. The risk is determined by the number of damages they have had in the previous years combined with the number of tickets, the number of miles of gas pipe and the duration since the last inspection. Each inspection reviews the operator's program and its approach to damage prevention. When it is determined a program is not effective, appropriate actions will be taken to ensure that each issue is addressed. MNOPS performed 13 specialized damage prevention inspections on gas pipeline operators during the grant period, however these inspection hours were accounted for under per meter charges to the operators.
Statistical analysis and complaint and incident trending	As summarized in the attachments, Volunteer Damage Reporting, (VDR) is requested from all
	underground utilities. Mandatory gas leak

	reporting is required for all regulated intrastate
	operator excavation related leaks.
	MNOPS currently uses various management
	reports from the OPS system which track case
	volumes, penalties assessed, penalties
	collected and rescinded educational sessions
	w/ number of attendees, accidents/incidents
	complaints and pipeline specific inspections/
	complaints, and pipeline specific inspections,
	complaints, envicement decions by type, and
	month by month and year by year comparisons
	and analysis and can be sorted as a whole or by
	individual operators and/or excavators
	MNOPS has also implemented the Voluntary
	Damage Reporting (VDP) program which has
	been nonulated with data since 1006. The
	information is used by MNOPS and others to
	determine: 1) the extent of exception related
	damages 2) the sauses of excavation related
	damages, 2) trend damages over time, and as a
	tool for evaluating (or bonchmarking) damage
	revention offerts. The information is also used
	by MNORS to direct recourses where they
	by MNOPS to direct resources where they
	demose and ultimetals increasing public sofety
	damage and ultimately increasing public safety.
	VDR results are made available on the MINOPS
	website.
	As shown in the attached figures, underground
	damages for 2014 for gas facility and all utilities
	ware 2.07 and 1.52 damages per 1000 locates
	respectively. In spite of year to year variability
	it appears the overall trend appears to be a
	it appears the overall trend appears to be a
	reduction in the rate of damage to
	The largest percentage of damages for all
	utilities are attributed to failure to hand dig
	(32.7%) with failure to call in a locate ticket
	accounting for 13.6% of damages to all utilities
	During the 2013-2014 SDP grant period, it was
	reported that failure to call in a locate ticket
	accounted for 18% of domages to all utilities
	This is noticeable decrease between the two
	grant periods
Court proceedings and consiliations	If MNODS and the party receiving a notice of
	n winters and the party receiving a notice of
	provable violation cannot reach an agreement
	through existing departmental processes, the

	issue is forwarded to the Attorney General's		
	Office to handle state court proceedings and		
	conciliations as needed.		
Compliance monitoring of one-call center	The Pipeline Safety Director sits on the one-call		
operations Frequent offenders and types of	center hoard		
offenses	The MNOPS Damage Prevention program lead		
Unenses	works closely with the one call center		
	president and public relations manager to		
	president and public relations manager to		
	Identify damage prevention needs.		
	Participation with these stakeholders allows		
	MNOPS to continually monitor the one-call		
	center activities. Additionally, MNOPS collects		
	and reviews all pipeline related gas releases		
	due to excavation related activities. This allows		
	MNOPS to track and appropriately address		
	frequent offenders.		
Rules and law review	Proposed statutory changes to the damage		
	prevention law were placed on hold by the		
	Governor's office and were not considered		
	during the 2014 session. This was done to		
	allow an emphasis on removing obsolete or		
	unnecessary statutes. During the grant period,		
	MNOPS focused on reviewing best practices in		
	regards to MN rules and law through the		
	MNCGA Best Practices Committee. Through		
	positive and effective communications by this		
	committee's stakeholders, verbiage proposals		
	to two national best practices are planned to		
	be submitted for review in anticipation of		
	enhancing the state's rules and laws related to		
	safe excavation		
	MNOPS is currently formulating agenda items		
	for 2016 state rules and law review with		
	industry stakeholders		
Outroach	MNOPS is currently scheduling damage		
Cofety presentations to every stors	minops is currently scheduling damage		
 Safety presentations to excavators Safety 8 typining presentations for 	prevention meetings for 2016. The meetings		
 Safety & training presentations for On evidence & Legisterre 	emphasize the importance of adhering to the		
Operators & locators	state s one-call laws via a case study		
 Annual conference with Damage 	presentation. The case studies showcase		
Prevention track	actual utility damage investigations conducted		
 Safety messages for the general 	by MNOPS inspectors. The presentations are		
population	also available on the MNOPS and MNCGA		
	websites to provide a computer based training		
	opportunity to those interested.		
	The damage prevention meetings are		
	continually refined by obtaining feedback from		

attendees, feedback and comments from UCC groups, review of collected damage report data in the OPS system and discussions with excavators.
During the grant period, MNOPS continued to publish its Damage Prevention Newsletter. (copies attached). This will be a semi-annual publication covering damage prevention issues. The newsletter is accessible on the MNOPS and MNCGA websites and also distributed to those attending the MNOPS damage prevention meetings.
MNOPS sponsored and presented at the MNOPS Spring Educational Conference which hosted the spring MNCGA quarterly meeting.
During the grant period, the SDP grant was used to continue focus on underground utility damages as a result of Agricultural Tiling. The MNCGA Agricultural Awareness Committee focuses on the education and awareness of excavation safety in rural agricultural areas.
MNOPS, in cooperation with the MNCGA, is developing publications that will be focused on damage prevention issues that are most relevant to farmer/rural excavators. These publications will be available electronically and as hardcopies for distribution to excavators and the interested public through various distribution channels such as equipment dealers, drain tile suppliers and excavating equipment rental stores. Another publication is a poster visual to use at agricultural elevator locations to emphasize the importance of Calling 811 Before You Dig (see attached).
During the grant period, MNOPS inspectors attended/participated in 21 MNCAER (MN Community Awareness Emergency Response) meetings. These presentations are provided by pipeline operators for first responders. Of the 21 meetings, 6 were accounted for under the SDP grant.
On April 18 th , 2015, the MNOPS Damage

	 Prevention Manager was interviewed by local tv media discussing the significance of 'April is National Safe Digging Month' and the importance of 'Calling 811 Before You Dig' (see attached). On April 20th, 2015, the MNOPS Damage Prevention Manager was interviewed by local radio media discussing the significance of 'April is National Safe Digging Month' and the importance of 'Calling 811 Before You Dig' (see attached).
	During the grant period, water bottles were purchased as promotional items to use for public education events. The water bottles included both the MNOPS and 'Call 811 Before You Dig' logos. They were utilized as 'prizes' for answering questions regarding 811 and safe excavation (see attached).
Involvement in Regional Minnesota Common Ground Alliance(MNCGA)	MNOPS played a role in the formulation of the Minnesota Regional Common Ground Alliance (MNCGA) and its Damage Prevention, Agricultural Awareness, Marketing and Special Projects Subcommittees. The MNOPS Damage Prevention Manager currently facilitates the MNCGA Best Practices Committee. Another MNOPS inspector facilitates the MNCGA Agricultural Awareness Committee. MNOPS staff also actively participates in the Education and Special Projects Committees.
	Thus far, the MNCGA has worked closely with numerous utility owners to ensure a consistent, unified approach to addressing Damage Prevention Education. MNOPS participated in 16 Regional MNCGA meetings during the 2014- 2015 grant period.
Active Participation in area Utility Coordinating Committees	During the grant period, MNOPS participated in 21 Utility Coordinating Committee meetings. MUCC covers the metro utility excavators. PUCC covers the prairieland utility excavators in the southern and western MN counties. LUCC covers the lakes utility excavators in the mid-state counties. VLUCC covers the Viking Land utility excavators in the NW counties. WCUCC covers the west-central portions of the state. These five UCC's cover over 49 counties.

	The purpose of the UCC groups is to discuss ideas and ways to positively engage with area excavators striving for the end goal of reducing underground utility damages to zero. MNOPS reviews feedback from previous damage prevention meetings with the UCC's and uses that information to enhance future damage prevention meetings by increasing attendance and participation by area excavators
Participation in the one-call center Operations	MNOPS Participated in all Gopher State One
and Communications Committees	Call Operations and Communications
	Committee meetings.

Quantifiable Metrics/Measures of Effectiveness (Item 2 under Article IX, <u>Section 9.02 Final</u> <u>Report</u>: "Where the output of the project can be quantified, a computation of the cost per unit of output.")

Case Type	Case Count	Total Hours
Damage Investigation	25	107.5
One Call Inquiry or		
Complaint	18	50
Presentations to		
Excavator/Pipeline/Gen.		
Public	56	497.5
Public Education Events	8	94.8
CAER (Community		
Awareness Emergency		
Response) Meetings	6	42.75
Utility Coordinating		
Committees	21	140.5
CGA / MNCGA Meetings	11	142.5
Grand Total	148	1075.55



Prepared by the Minnesota Department of Public Safety, Office of Pipeline Safety, November 16, 2015.



Gas - Damages PER 1000 Locates

2014 - 2015 Gas Damages by Cause for SDP Grant Period





All Utilities - DAMAGES PER 1000 Locates

2014 - 2015 All Utilities Damages by Cause for SDP Grant Period



Issues, Problems or Challenges (Item 3 under Article IX, <u>Section 9.021 Final Report</u>: "The reasons for slippage if established objectives were not met. ")

The Minnesota Office of Pipeline Safety did not encounter any issues or challenges during the grant period.

Final Financial Status Report

The final financial report has been sent as a separate attachment to the AA.

Requests of the AOTR and/or PHMSA

No actions requested at this time.



Excavation and damage prevention information from the Office of Pipeline Safety

FROM THE DAMAGE PREVENTION MANAGER

The past year was very busy for the excavation community. MNOPS inspectors have been on the move and out of the office seeing some of the issues encoun-



tered by excavators we may be able to assist with and help improve.

Our goal is the same as yours — to reduce excavation damages through collaboration and innovation. By working together and communicating, we can continually improve our performance and set our benchmarks higher. Please enjoy this newsletter, forward us questions and comments and stay warm and safe this winter.

> Work smart and be safe, Mike Mendiola

Let's make 2015 a great year

We look forward to working with you to enhance excavation safety

By Claude Anderson MNOPS senior engineer

The Minnesota Office of Pipeline Safety's Damage Prevention Team has a few new faces since our last newsletter. Michael Mendiola became team manager last spring. Mike didn't have to move far — he was previously MNOPS' large operator team manager. Thomas Coffman joined the MNOPS Damage Prevention Team in November, bringing several years of engineering experience from the State of Washington Department of Transportation.

Damage prevention is a shared responsibility among all of our office's inspectors so you will likely also meet the new MNOPS inspectors at safety meetings or incident investigations. MNOPS' new inspectors are: Kevin Streeter (large operators — St. Paul) and Joseph Hauger (small operators and interstate — Granite Falls).

Although all MNOPS inspectors are involved with jurisdictional pipeline damage and failure investigations, these activities are coordinated by the Damage Prevention Team. The team will continue providing damage prevention presentations and other communications at meetings and other events statewide.

The Damage Prevention Team will also visit operator facilities to conduct several of the PHMSA required specialized operator inspections. These inspections include damage prevention, public awareness, operator qualifications and drug and alcohol inspections.

MNOPS will be supporting Minnesota Common Ground Alliance initiatives summarized inside this newsletter. We will be involved in scheduling, giving damage prevention presentations and supporting the Best Practices and Agricultural Awareness committees.

We hope excavation safety in Minnesota can be enhanced as all stakeholders work cooperatively with properly targeted objectives and effectively focused efforts.

GSOC notifications up, damages per 1,000 locates down

NOPS is in the proce of compiling last year's underground damage reports from utility operators.

One measure of a damage prevention program is the number of damages for every 1,000

NOPS is in the processtickets to Gopher State One Callof compiling last(GSOC).

GSOC notifications increased 6.2 percent in 2014 indicating an increase in overall excavation activity.

It is estimated that damages

have dropped from 2.06 damages/1,000 locates in 2013 to 2 damages/1,000 locates in 2014.

Damages due to not calling in a locate ticket have dropped from 16.6 percent of damages in 2013 to 14.5 percent in 2014. With some exceptions — "Failed to Hand Dig" dropped from 30.7 percent in 2013 to 18.2 percent in 2014 — increases were reported in "Damage by Hand Dig" and "Failed to Protect/Support."



Damage prevention issues with road right of way

By Claude Anderson MNOPS senior engineer

public road right-ofway (ROW) may be established in a variety of ways. For example, a road is often established by a developer when a land parcel is platted. Alternatively, a road authority may establish or enlarge a ROW when the road is improved. A road ROW is typically at least 66 feet (four rods) — the minimum width for roads established under Minn. Statute 160.04. Some statutory exceptions are available for mow the ROW and harvest cart-ways and dedicated roads.

Typically the ROW includes the traffic surface, road shoulders, ditches and possibly a clear-zone area between the ditch easements and ordinances also and the outside edge of the ROW. These features all require various maintenance activities on particular road ROW. a routine basis.

Utilities frequently use road ROWs for their facilities. To minimize damage that can occur from ROW repairs, ditch cleaning and other maintenance activities (Fig. 1), facilities are typically installed in the clear area at the es, limiting drainage capacity. outer edge of the ROW. Overhead power lines and pedestals are readily visible examples of this practice. Although not generally visible, underground utilities may also be installed along the outer edge of the road ROW. Examples of these utilities in rural areas include gas lines, water lines, sewer lines, electrical cables and fiber optic cables. The rapid pace of new utility installa-

tion — such as fiber optic cable — is increasing the number and density of facilities.

Statutes such as Minn. Statute 160.2715 (a)(2) have been enacted to prohibit plowing and planting of non-permanent, vegetative cover in the road ROW. Furthermore, under Minn. Statute 160.232, ROWs are to be maintained in permanent vegetative cover to enhance wildlife habitat, improve water quality and provide for safe sight distance. Under existing statutes, property owners may still be permitted to grasses for personal use. These activities typically do not require routine excavation. In addition to state law, county and township need to be reviewed to determine any additional requirements on a

As well as destroying otherwise available wildlife habitat. ROW farming operations of the type shown in Fig. 2 create higher maintenance costs. As fields and ROWs are plowed, soil from the field is deposited in the ditch-Without permanent vegetative cover, the exposed soil by the roadway erodes, plugs culverts and creates larger drainage issues.

This results in softer subgrades of the gravel road. As the fields and ROWs are plowed, soil from the field is deposited directly in the ditches, which then limit their drainage capacity. Without permanent vegetative



cover, the exposed soil in the ROW, quickly erodes and plugs culverts and creates greater drainage issues. The sediment also carries high levels of nutrients with it. Excess nutrients hinder plant growth, promote algae, and reduce water quality and aesthetics. By leaving rightsof-way unaltered, we limit the potential for water problems and maintain positive environmental conditions.

These factors create serious safety concerns and higher maintenance costs. To avoid these concerns, these activities are subsequently classified as misdemeanors under Minn. State Statute 160.2715 (a)(7).

Another safety issue that arises by removing growing row crops instead of permanent cover is the detrimental effect on available site lines. A corn-cropping pattern in the road ROW as shown in Fig. 3 would severely limit ability of drivers approaching at intersections or driveways to see oncoming traffic.



Road authorities have mixed results in their attempts to achieve compliance with statutes. State and county road authorities typically have an enforcement program to administer ROW statutes covering farming on state and county roads. Unfortunately, township government, often having personal relationships with their landowners (voters), sometimes find it difficult to enforce the laws. Some townships do not enforce these statutes because they are not certain of the ROW width for some roads under their jurisdictions.

In addition to the safety and environmental issues described above, road ROW encroachment

Public ROW/Continued on page 3



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> Public ROW/From page 2

is an important, though not a wellpublicized, issue in utility facility protection. Initially, there may be few or no underground facilities in a rural road ROW. However, as time progresses, population density and customer demand results in underground facilities being installed, and the concentration of utilities increases in the ROW, often along its outside edges. Increasing value of crops and farmland can incentivize farming on every available acre of tillable land.

As a result, farmers may slowly encroach into the ROW even though statutes forbid it, and compromise the safety of both farmer and utilities.

For example, even with normal farming practices, equipment may directly hit underground facilities. Row cropping practices erode ditch banks, reduce the amount of dirt covering buried utilities, and increase the likelihood of underground facilities being damaged by farm implements.

In Minnesota, farming practices at depths of less than 18 inches — in a field or in a right-of-way - are exempt from state damage-prevention laws (Minn. Statute 216D).

A farm equipment operator can always call 811 — a free call — to request locates. A call to 811 would provide notice to utilities that tillage will be occurring and require them to mark underground facilities to within a two-foot tolerance, allowing the farmer to either avoid the area to or hand-dig and precisely locate the utility.

Road ROW tillage affects the safety of farm equipment operators and the continuity of utility service, which in turn affects the safety of the utility customer and the public.

Every year, facilities are damaged by farm equipment, buried, or covered by crop growth. Damaged gas pipelines or communication cables can have severe, negative consequences far beyond maintenance and repair costs that are passed on to customers.



The rural community needs to take action to keep residents safe and maintain utility services at reasonable prices.

As a first step, road authorities can enforce statutes on ROW cultivation. Road authorities and utilities can educate landowners on safe farming practices. Landowners and farmers must comply with statutes limiting ROW agricultural operations and call 811 before performing tilling operations in a ROW.

With your help, we can make Minnesota even safer

From the MNCGA Team

t's hard to imagine that the Minnesota Common Ground Alliance (MNCGA) could come so far, so fast. We accomplished everything we set out to do in 2014. There will be no change in our strategy and emphasis in 2015; we'll continue trying to save lives and prevent costly damage through more education, better tools and sustained stakeholder involvement

A few of the highlights:

Prevention Meetings

One of our main goals was to provide an interface where stakeholders could register for a Damage Prevention Meeting (DPM)

in one place. If you haven't visit- 316 runners, and half-again that ed the website to see how userfriendly it has become, check it out on the event calendar.

Day of the Dozers

An opportunity to partner with the Minnesota Utility Contractors Association led us to one of the most fulfilling activities we participated in this year – The Day of the Dozers. This was a great event to interact with kids, homeowners, and the excavation community. Check out the video on our web page.

811 Run

In trying to reach homeowners Committees Page. with our Call-Before-You-Dig message, we sponsored the Second Annual 811 Run. We had

many family members participated in the after-race activities. See what a great time it was at our 811 Run Page on Facebook.

Ag Awareness

Unique damage prevention issues need to be addressed in rural Minnesota. In addition to conducting awareness events, we're developing information and activities to slow the increase in damages caused by tiling, ditching, soil sampling, and road right-of-way farming operations. Find out more on our

Best Practices

MNCGA believes identifying damage prevention related best

practices will help reduce damages. We are spreading the message that not all facilities get marked when a one-call ticket is generated, and developing techniques to locate and identify these facilities before they're damaged. We are putting best practices on paper to strengthen our effectiveness. Existing best practices can be found on the National CGA website.

We welcome all stakeholders in Minnesota to join our membership.

It's free, and we need member feedback to help us address their concerns and needs. To find out more, visit our website at http://www.mncga.com/



Compliance with laws is key to damage prevention

Editor's note: This is the second in a two-part series.

By Claude Anderson MNOPS senior engineer

very state has a damage prevention program to protect underground utilities. Each program has unique laws and regulations governing practices and enforcement related to damage prevention. Minnesota's requirements are provided in Minnesota Statute Chapter 216D and MR 7560. The Minnesota Office of Pipeline Safety enforces MS 216D.

Part one of this series talked about the initial investigation of a damage event or other possible MS 216D violations. This article outlines the penalty and due process for violations.

Penalty and Due Process Unless the operator was negli-

gent or failed to comply with MSA 216D.04 subd. 3., they may pursue collection of damages to recover the cost of repairs and the value of the product carried in a damaged pipeline. Excavators may be subject to a civil penalty not to exceed \$1,000 per violation, per day.

Pipeline operators, being regulated under MS 299F.59 subd. 1, are limited to penalties not to exceed \$10,000 for each violation, per day of violation, with a maximum civil penalty of \$500,000 for a related series of violations.

For operators regulated under MS 299F.59 subd. 1. factors considered in assessing a civil penalty are:

• The nature, circumstances, and gravity of the violation

• The degree of the person's culpability

• The person's history of previous offenses

• The person's ability to pay

• Good faith on the part of the person in attempting to remedy the cause of the violation;

• The effect of the penalty on the person's ability to continue business

• Past reports of damage to an underground facility by a person

If the alleged violator does not contest a NPV, the alleged violation is bound by the proposed terms and penalties in the violation. The alleged violator may object to the proposed compliance order by submitting written explanations, information or evidence. They also have the right to request a hearing.

If the NPV contains a proposed civil penalty, a person or an operator may:

case

· Submit an offer in compromise of the proposed civil penalty

• Submit a written explanation, information, or other material in answer to the allegations or in mitigation of the proposed civil penalty.

If a settlement is not reached during the administrative review and appeal process, the alleged violator may go to the Minnesota State Courts, including alternative dispute resolution processes.

A law is only as strong as the awareness and compliance of those it governs. People who depend on our underground infrastructure, and those who install and maintain it, deserve to be safe. That goal can be achieved when there is voluntary compliance with our damage • Pay the penalty and close the prevention laws and regulations.



Meet the damage

prevention team (Left to right) **Team Manager Michael Mendiola**

michael.mendiola@state.mn.us

Senior Engineer Thomas Coffman thomas.coffman@state.mn.us

Senior Engineer Claude Anderson claude.anderson@state.mn.us

Sr. Engineering Specialist Pat Donovan pat.donovan@state.mn.us



Excavation and damage prevention information from the Office of Pipeline Safety

Summer 2015

FROM THE DAMAGE **PREVENTION MANAGER**

hew! MNOPS wrapped up the 2015 winter/ spring season traveling across the state and presenting at damage prevention meetings. Six **MNOPS** inspec-



tors engaged 5,628 stakeholders at 56 meetings in just over three months. Needless to say, one can get road-weary but we stay invigorated for a worthy cause - to help Minnesota excavators be safe while digging and reduce facility damages.

It spurs us on even more when our stakeholders tell us directly the challenges they encounter at these meetings. With the dig season already upon us, we hope to carry our knowledge to the field and continue working with excavators towards the goal of zero hits. Thank you to all who attended the damage prevention meetings this year! We value your feedback. If you have suggestions for issues to discuss or for improvements to next year's meetings, please let us know.

> Work smart and be safe, Mike Mendiola

By Thomas Coffman MNOPS senior engineer

hroughout the year the Minnesota Office of Pipeline Safety (MNOPS) receives information on excavation damages to gas utilities

This data is recorded and used to evaluate potential issues regarding safe excavation within the state. Unfortunately, MNOPS does not receive damage information from all underground utilities.

One of the ways to evaluate this data is by plotting the total number of gas hits throughout the year and comparing this data to previous years. As expected, when the construction season hits full swing in mid-May the rate of



CHART: 2014 gas damages over time and the current 2015 gas damages.

gas damages increases and in the fall the rate decreases as winter nears. The graph shows a linear trend line for the 2014 gas damages. The average rate of change for that line, or daily average of gas damages, is approximately seven gas damages per day for 2014.

The current data for 2015 has been added to the graph as well showing gas damages through mid-May of 2015. Total damages to date are up from 2014 due to an early start of construction season.

> Gas damages/ Continued on page 3





Pipeline markers are there for your safety

By Thomas Coffman MNOPS senior engineer

There are more than 65,000 miles of pipeline running below our feet in Minnesota carrying valuable resources across the state and country.

The majority of these lines are below ground. Pipeline markers are placed aboveground to indicate the approximate location of a pipeline route at the intersection of street, highway, railway and other prominent points to inform the public and prevent excavation damage.

The markers will show the name and phone number of the pipeline operator.

This information is vital to emergency responders during a pipeline incident.

In Minnesota, pipeline operators are required by both state and federal law to have these pipeline markers. State and federal law also prohibits the vandalism of these signs as shown below.

MS 299J.14 LINE MARKERS; VANDALISM PENALTY

Subd. 2.Vandalism prohibited; misdemeanor.

A person may not deface, mar, damage, remove, injure, displace, destroy, or tamper with any sign or line marker marking the location of a pipeline. A person violating this subdivision is guilty of a misdemeanor.

49 U.S. CODE §60123 – CRIMINAL PENALTIES

(c) Penalty for Damaging or Destroying Sign.— A person knowingly and willfully defacing, damaging, removing, or destroying a pipeline sign or rightof-way marker required by a law or regulation of the United States shall be fined under title 18, imprisoned for not more than one year, or both.



Although there are few cases where MS 299.14 and 49 U.S. Code §60123 (c) have led to criminal charges, MNOPS would like to remind landowners and excavators the importance of these markers and the necessary compliance with their corresponding laws.

Furthermore, electric, water, and communication utility mark-

ers exist to notify excavators of other underground hazards which can be just a crucial to state and country infrastructure.

Prior to performing any excavation, survey the surrounding area for gas and other utility markers, avoid damaging these markers, and always call 811 two working days prior to digging.

Soil sampling? Follow excavation laws to ensure public safety

By Claude Anderson

MNOPS senior engineer

H istorically, soil sampling for crop production has been conducted using hand sampling probes removing topsoil at a 0.5 to 1-ft depth. Under Minnesota statute, the use of hand tools is not considered excavation and a call to 811 or Gopher State One Call (GSOC) notification is not required. Increasingly, sampling recommendations for certain crops may request deep soil sampling at sampling depths ranging from 2 to 6-ft.

This is being done to obtain soil profiles for optimizing fertilizer recommendations for nutrients such as nitrogen, boron, sulfur and phosphorus. Although deep soil sampling may be conducted with hand tools, often machine powered samplers such as hydraulic probes or augers are used, and if so, the sampler (aka excavator) is required to call 811 or file a ticket online with GSOC.

Several utility operators in Minnesota have observed instances of these excavations

occurring without the required locate notice. This raises public safety issues as well as concerns of potential damage to underground facilities.

To increase awareness to the affected community, MNOPS is notifying some of those possibly involved or familiar with this issue that Minnesota Statutes —Excavation Notice System (Chapter 216D) applies to deep soil sampling. Soil sampling done with power tools is defined as excavation under

SAMPLING/Continued on page 3

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> GAS DAMAGES/From page 1

However, the daily average for 2015 is down at five damages per day.

If this rate of 5 gas damages per day continues through the 2015 construction season it is anticipated that the total damages for 2015 will be similar to the 1200 total gas damages seen in 2014.

An excavator has less than a 1% chance of hitting an underground utility if a locate request is submitted prior to excavation according to the 2013 CGA *Dirt Report*.

The table to the right shows the percentage of damages by each root cause including when a locate request was not submitted (LORQ NOT REQUESTED).

This root cause is significant in avoiding gas damages which for the last two years has been around 14.5 percent for the state.

ROOT CAUSE OF DAMAGE	%DAMAGES 2014	%DAMAGES 2015 (To mid-May)	
LORQ NOT REQUESTED	14.5%	14.3%	
NOT MARKED	4.6%	9.1%	
MIS-MARKED	9.4%	11.5%	
SOMEONE ELSE'S MARKS	0.6%	0.4%	
PRIOR TO START TIME	1.8%	2.0%	
EXPIRED LOCATE	2.4%	1.2%	
EXCAVATION OUTSIDE REQUEST	1.7%	3.6%	
FAILED TO MAINTAIN MARKS	6.4%	5.6%	
FAILED TO HAND DIG	18.1%	23.0%	
DAMAGE BY HAND DIG	22.6%	20.2%	
FAILED TO PROTECT/SUPPORT	17.9%	9.1%	

This value is below the national average of 26 percent for 2013.

So far percentages for 2015 appear similar to percentages found in 2014.

> SAMPLING/From page 2

existing statute and requires GSOC notification. Although certain agricultural activities are exempt from GSOC notification, as noted below, soil sampling is not listed as exempt, and in any event, any agricultural activity meeting the definition of an excavation deeper then 18-inch depth would not be exempt. Full compliance with these laws is necessary to ensure public safety and minimize costly damages. Noncompliance is enforceable by MNOPS. Specifically, those conducting soil sampling should be familiar with the following requirements:

• GSOC notification required

An excavator shall make a notification at least 48-hours (excluding holidays and weekends) before beginning an excavation (MS 216D.04 Sub. 1).

This is required for nonexempt activities that would be defined as excavations (this does not include hand tools).

• **Definition of excavation:** Excavations under MS 216D.01 (5) include: "... an activity that moves, removes, or otherwise disturbs the soil by use of a motor, engine, hydraulic or pneumatically powered tool, or machine-powered equipment of any"

• Agricultural exemption is available for some agricultural excavation, but does not apply to mechanized soil sampling:

"... Excavation does not include....4) plowing, cultivating, planting,



PHOTO: Soil sampler — ATV mounted 3-ft sampling depth

harvesting, and similar operations in connection with growing crops, trees, and shrubs, unless any of these activities disturbs the soil to a depth of 18 inches or more. Contact this office should you have any questions or concerns or if you observe excavation practices that do not conform to MN Statute 216D. Thank you for keeping Minnesota safe!



Get to know the Damage Prevention Team

e asked some of the Damage Prevention Team members the best part of their job. Here's what they had to say:

Mike Mendiola

Each year, MNOPS travels the state educating excavators and the general public the dangers of not excavating safely. During these presentations, I have the opportunity to answer many questions that people encounter first-hand because, let's face it, we don't get a chance to see all the issues at every dig location throughout the state. We rely on the people digging to convey to us their challenges since they are the ones directly affected by them. Having the opportunity to talk to them face-to-face gives me a better understanding of their situation and allows me to put myself in their shoes so that I can help them the best I can.

Being involved with stakeholder meetings such as the various utility coordination committees (UCC's), the MN Common Ground Alliance (MNCGA), and other industry events provides the opportunity to openly discuss challenges facing damage prevention and formulate ideas to achieve a common goal. It's a refreshing feeling knowing that I can sit down with pipeline operators, excavators, vendors, and other agencies and engage in open conversation sparking ideas

on how make damage prevention better for Minnesota. It's an even better feeling learning after the fact that some of the ideas we offered during a meeting actually worked in practice!

Claude Anderson

Occurrence of pipeline failure from catastrophic events is rare. However, with the severe consequences that can result, effective implementation of practices to eliminate the known precursors to catastrophic events is crucial. Being on the DP team provides the opportunity to address this goal while being involved with a variety of interesting and challenging projects on a daily basis

I enjoy being able to utilize my past experience to work with stakeholders and to assist the effort in developing consensus proposals when possible for updating Minnesota's damage prevention law.

The industry faces changes driven by new technologies, higher performance materials, globalization of supply chains, rapid expansion of new facilities, increased demand on aging infrastructure and the growing threat from intentional damages on transportation facilities.

Challenges from increasingly subtle new risks and their interaction while coupled with less tolerance for facility failure, makes the demands for improved DP performance increasingly challenging. As DP programs

WE'RE HERE FOR YOU!

Need assistance with an investigation? How about help with a ticket you've submitted or locate issues? We're here to help. Contact any member of the MNOPS Damage Prevention Team with your questions.

Team Manager Michael Mendiola michael.mendiola@state.mn.us Senior Engineer Thomas Coffman

thomas.coffman@state.mn.us

Senior Engineer Claude Anderson claude.anderson@state.mn.us

Senior Engineering Specialist Pat Donovan pat.donovan@state.mn.us

based solely on regulatory compliance do not meet the needs of the more complicated and increasingly sophisticated systems, new approaches and reliance on best practices are being adopted. For example, risk management, quality management and safety management systems have been used in other industries for managing safety issues and are being formulated and introduced for use in the pipeline industry. These processes will need to be understood by the regulatory community. As such, the DP team should remain an interesting and rewarding assignment into the future.

Thomas Coffman

I believe damage prevention is a necessary function for the un-

derground utilities industry. Excavation incidents can cause death, injury, significant loss of resources, property damages, and environmental damages. What is most rewarding for me is analyzing data to see how we compare to other states and the country.

Numbers don't lie as can be seen in this newsletter. Right now Minnesota's one-call system, utilities, locators, and excavators are doing a very effective job at avoiding damages. After only six months of being on the damage prevention team here at MNOPS, I am amazed at the majority of positive attitudes regarding damage prevention I have seen during site investigations and at the DP meetings this winter.



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For more information go to MNOPS Website

KSTP - SEYEWITNESS NEWS

INTERVIEW: Safe Digging Month

Updated: 04/18/2015 10:06 AM KSTP.com By: McKenzie Gernes

April is safe digging month so joining KSTP's Tom Durian is Mike Mendiola of the Minnesota Office of Pipeline Safety to talk about how people should properly dig.

Mendiola says what you are going to encounter at your location at home is your water main and sewer service lines, and they are going to be six to eight feet deep.



Mendiola says when you hit a natural gas line, there won't always

be an explosion, but you will most likely smell it. He says the biggest indicator of a gas leak is the rotten egg smell.

If you recognize that smell Mendiola says you want to get distance between you and that location and call 911.





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NEWS

April Is National Safe Digging Month

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Photo:

APR 20, 2015 AT 3:35 PM

ST. PAUL, Minn. (KNSI) - Xcel Energy and the Minnesota Department of Public Safety wants to remind you that April is National Safe Digging Month.

Michael Mendiola is the damage prevention manager at the Minnesota Office of Pipeline safety. He says you should call 811 before digging. The free service is intended to protect someone from, say, hitting a natural gas line.

"In Minnesota alone, there are over 60,000 miles of underground utilities, and the importance of April Safe

Digging Month is just that – to dig safely when doing home projects," Mendiola told KNSI's Frank Lee.

Building a deck, planting a tree or replacing your mailbox can be dangerous if people don't know what's below before they start digging. Buried underground facilities -- including electric and natural gas lines -- can run inches from the surface and be easily damaged with household tools.

"Well, 811 is a national number and what most people don't realize is that calling before you dig is actually required by law," Mendiola said.

Minnesota homeowners and contractors who call 811 are connected to Gopher State One Call, the local center that notifies the appropriate utility companies of the caller's intent to dig.

"Someone will come out to your site – to your address, to your location -- and mark all the underground utilities," Mendiola said.

Digging without knowing the location of underground utilities increases the likelihood of unintentional damage, which can cause serious injuries, service disruptions and repair costs.



Posted By Frank Lee NEWS ANCHOR

FRANK LEE'S PROFILE

Current Weather

For Central Minnesota



Temp: 31°F (-1°C) Dewpoint: 19 Wind: 21 NW Weather: Clear

FULL FORECAST | LIVE RADAR



Community Calendar

WED APRIL 22, 2015 Sam Johnson & Justin Quinn...

wed April 22, 2015 100 Proof Happy Hour 2.0 | An Inbound Ma...

THU APRIL 23, 2015 Drug Take Back Day at SCSU...

THU APRIL 23, 2015 Sam Johnson & Justin Quinn...

FRI APRIL 24, 2015

Sam Johnson & Justin Quinn...

💷 get iCal link

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Also post on Facebook Posting as Mike Mendiola - Comment

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APR 13, 2015

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APR 8, 2015

For more than 60 years, Xcel Energy's Burnsville plant has received shipments of coal to generate electricity. Read More...



Cold Weather Rule Expires Wednesday

APR 13, 2015

Minnesota's "cold weather rule" expires Wednesday, and Xcel Energy advises customers with past due bills to contact the company as soon as possible to make payment arrangements. Read More...



Texting And Driving Enforcement Begins Next Week

APR 9, 2015

Starting Monday, Minnesota law enforcement will be looking next week to catch drivers who are focused more on their phones than on the road. Read More...

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DATE	INVOICE #
7/30/2015	150716

BILL TO	SHIP TO	
MN DPS OFFICE of PIPELINE SAFETY SUITE 147 445 MINNESOTA STREET ST. PAUL, MN 55101	MIKE MENDIOLA	

			DUE DATE	P.O. NUMBER 3000034768
			8/30/2015	
ITEM	DESCRIPTION	QTY	RATĘ	AMOUNT

45793	EAJNH-HJYGK	305	3.66	1,116.30
	27 OZ EXCURSION WATER BOTTLE			
	COLOR: BLUE IMPRINT COLOR: WHITE			
	CALL BEFORE YOU DIG			
	DRINK THRU LID BULK SHIPPED			



