



## Office of the Commissioner

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May 17, 2011

Ms. Cynthia L. Quarterman, Administrator  
United States Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
1200 New Jersey Avenue SE  
Washington DC 20590

Dear Ms. Quarterman:

This is in response to letters addressed by you and Mr. LaHood to officials in Minnesota regarding the need for states to develop comprehensive plans to prevent pipeline failures. Your commitment to safety is much appreciated in a state where safe and reliable pipeline operation has been a priority for decades.

After a fatal 1986 gasoline pipeline leak in Mounds View, Minnesota, the Minnesota Commission on Pipeline Safety was established to focus specifically on pipeline failure prevention. In 1987 the state legislature responded to that commission's findings and recommendations by establishing the Minnesota Office of Pipeline Safety (MNOPS) and the Gopher State One Call Center (GSOC). By placing MNOPS within the Department of Public Safety, lawmakers ensured that its mission would be supported by a culture of safety and accountability.

Further, the Minnesota State Fire Marshal is the director of MNOPS; this shared reporting structure enables specially-trained State Fire Marshal Division (SFMD) investigators to partner with MNOPS on pipeline incident response. Current MNOPS Director Jerry Rosendahl is also President of the National Association of State Fire Marshals, a statutory member of the GSOC board and a Common Ground Alliance board member.

In 1991, MNOPS became a PHMSA interstate agent for hazardous liquid and gas pipelines; only federal agents now inspect more miles of pipeline than MNOPS inspectors. Our ability to react quickly to interstate pipeline incidents and to advise emergency responders has saved lives, property and the environment on numerous occasions. In a recent example, a mismarked interstate, liquid-propane pipeline in southwest Minnesota was punctured by a tiling machine. A SFMD investigator dispatched immediately and provided liaison between MNOPS and local responders until MNOPS inspectors arrived on the scene. This prompt response prevented a dangerous situation from becoming deadly.

Alcohol and Gambling Enforcement

Bureau of Criminal Apprehension

Driver and Vehicle Services

Emergency Communication Networks

Homeland Security and Emergency Management

Minnesota State Patrol

Office of Communications

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Office of Traffic Safety

State Fire Marshal

### **Excavation Safety**

On March 16, 2011, Governor Mark Dayton proclaimed Safe Digging Month in Minnesota. In addition to public outreach efforts, MNOPS partners with other organizations working to prevent excavation damage, including utility coordinating committees, the Common Ground Alliance, the Gopher State One Call Center and excavator groups such as the 49ers. MNOPS shares lessons learned and enforcement priorities at about 80 excavator training sessions each year. Damage prevention training is part of the MNOPS annual conference, where experts are invited to share best practices and lessons learned.

Your letter mentioned that effective damage prevention laws are characterized by lack of exemptions from safe digging processes and balanced enforcement that holds all parties accountable. MNOPS investigations and voluntary reporting data overwhelmingly conclude that utilities are damaged when communications and respectful relationships between locators and excavators break down. Failure to give proper excavation notice, failure to respect and maintain marks, or failure to protect pipelines during excavation account for more than two-thirds of gas damages. Enforcement of MS216D is therefore complaint-driven and handled by licensed, professional engineers with the responsibility to be fair and impartial. Civil penalty enforcement actions are taken against excavators about twice as often as facility operators; government agencies are just as susceptible to enforcement as private entities. All parties are entitled to due process if they are unsatisfied with the results.

In Minnesota, the combined efforts of excavation-safety stakeholders, along with MNOPS' fair and balanced, complaint-driven enforcement has yielded dramatic results. The number of gas distribution pipeline leaks caused by excavation damage has dropped about 70 percent since 1988. Similarly, the gas pipeline damage per 1000 locates has dropped over 70 percent since 1996. MNOPS has used all of the damage prevention "nine elements" to achieve these results.

### **Pipeline Replacement/Repair Programs**

In your request that Minnesota accelerate pipeline repair, rehabilitation and replacement on systems in which integrity cannot be positively confirmed, you expressed particular interest in replacement of bare steel and cast iron pipelines. In the last 20 years, Minnesota pipeline operators have replaced 99 percent of their protected bare steel pipelines, 82 percent of their cast iron lines, 67 percent of their unprotected steel, and 56 percent of their copper services. We anticipate that cast iron gas pipes will be entirely eliminated in Minnesota within the next few years.

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In addition to bare steel and cast iron, MNOPS required approximately 100 miles of mains and associated services made of Century plastic pipe to be replaced from 2005-2010 after a house explosion was caused by a cracked Century pipeline. After a mechanical coupling failure in 2004 resulted in three fatalities and one injury, 50,000 mechanical couplers were inspected and 30,000 were repaired. Due to several incidents involving copper services risers, about 4,500 copper service risers have been replaced since 2004. In 2010, a house exploded after a drain cleaner attempted to clear a sewer pipe but instead punctured a gas pipe that had been installed through the sewer using trenchless technology. MNOPS ordered the pipeline operator to inspect all gas lines that may have been installed through sewers in Minnesota. To date, 213 "crossbores" have been identified and repaired. All instances where the integrity of pipelines is called into question will continue to be systematically investigated and remedied.

#### **Acceleration of Existing Pipeline Replacement Programs**

MNOPS will work with the Minnesota Public Utilities Commission (PUC) and pipeline operators to reexamine legacy pipeline replacement projects and timelines in light of recent events in San Bruno and Allentown. Specifically, we will continue to eliminate the 20,500 legacy steel services and 763 miles of legacy steel main, the 19,523 copper services and 93,067 copper service risers, and the 80 miles of cast iron main that remain in Minnesota. We will also require pipeline operators to install additional valves to ensure prompt and effective response to emergencies. Finally, we will closely examine our transmission pipelines; in any cases where integrity cannot be verified, the need for replacement will be evaluated.

Each of the last five years, more than 4,000 legacy steel services have been replaced, on average, along with 33 miles of legacy steel mains, 1,800 copper services and 4,500 copper risers. At this rate, it will take about 10 years to eliminate all of the legacy services (copper and legacy steel) and just over 20 years to eliminate all of the legacy mains and copper risers. We will continue to communicate our progress and plans for acceleration through our usual reporting channels.

Minnesota remains committed to pipeline and excavation safety, and we appreciate the opportunity to add our voice to the national conversation. If you have additional questions, please contact Elizabeth Skalnek, Chief Engineer of the Office of Pipeline Safety at 651-201-7239.

Sincerely,



Ramona L. Dohman  
Commissioner