The Tennessee Advisory Commission on Intergovernmental Relations

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MEMORANDUM

TO: TACIR Commission Members

FROM: Harry A. Green
Executive Director

DATE: September 9, 2010

SUBJECT: Utility Damage Prevention Report

Public Chapter 470, Acts of 2009, directed TACIR to study the effectiveness of Tennessee's current underground utility damage prevention program. In September and December 2009, the Commission heard testimony from several interested stakeholders, both proponents and opponents. Included in this section is a draft report for Commission approval. The report summarizes Federal and state efforts to strengthen utility damage prevention statutes and practices.

Safe Digging!

Working Together to Prevent Damage to Underground Utilities

Executive Summary

Federal officials have suggested that states strengthen their underground utility protection laws, primarily to protect natural gas and hazardous liquid pipelines. The Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006 (PIPES Act) authorizes the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) to take enforcement action against excavators for violations if the Secretary of Transportation determines that a state's own enforcement is inadequate. To establish a process for such enforcement action, PHMSA issued an advance notice of proposed rulemaking on October 29, 2009,[1] in which it describes and solicits comments on how it proposes to determine when a state program is inadequate. Federal officials indicate that the rulemaking process will not be complete, however, until fall of 2011.

Although neither the federal law nor this notice directly states that such action by the Secretary would affect federal funding of the states' gas pipeline inspection programs that is the logical inference. States' eligibility for funding depends on certification that, in turn, depends on the adequacy of state practices.

In anticipation of federal action, the 106th General Assembly considered legislation that would have amended Tennessee's Utility Damage Prevention statutes (Tennessee Code Annotated § 65-31-101 et seq.) That bill (HB 852, SB 818) included some controversial changes affecting utility operators other than the natural gas pipeline operators regulated by the Tennessee Regulatory Authority.

Instead, the General Assembly amended that bill and passed Public Chapter 470, Acts of 2009, directing TACIR to study the effectiveness of Tennessee's current underground utility damage prevention program. In September and December of 2009, TACIR heard testimony from several stakeholder groups, including the Tennessee Regulatory Authority (TRA), the Tennessee One-Call System (TNOCS), utility districts, cities, counties, railroads, farmers, and contractors. The Commission decided not to recommend statutory or programmatic changes because PHMSA has not completed its rulemaking process. The testimony, as well as other work by TACIR staff, however, raised several issues that may need to be addressed if legislation moves forward. These include:

- ***More Effective Damage-Incident Reporting.*** Presently, reporting of damage incidents is voluntary in Tennessee, making it difficult to determine the prevalence and significance of utility damage. A few other states have focused on improved data collection and analysis to target ways to improve their systems.

[1] Federal Register, Vol. 74, No. 208, Thursday, October 29, 2009, Proposed Rules http://edocket.access.gpo.gov/2009/pdf/E9-26099.pdf.

- ***Civil Penalties in Place of Criminal Ones***. Tennessee is one of a handful of states lacking a process to levy civil penalties against operators who violate the utility damage prevention statutes. The federal rulemaking notice states, "a threshold criterion for determining the adequacy of a state's damage prevention enforcement program will be whether the state has established and exercised its authority to assess civil penalties for violation of its one-call law." This would seem to imply, that at a minimum, Tennessee will need to establish a civil penalty process.

- ***A State Agency To Oversee the Program and Enforce Penalties.*** Unlike some states, Tennessee lacks a state-level comprehensive underground utility damage prevention program. The 2009 proposed legislation would have vested utility damage enforcement authority with TRA and a stakeholder advisory committee. Other state agencies might be able to assume this role, as well. Some other states use their Attorney General or another department. A state agency would need specific authority to create a more comprehensive enforcement process

- ***Governance of the One-Call System***. State statutes[2] authorize underground utility operators to form a "one-call" notification service for excavation and demolition. This service—the Tennessee One-call System—operates as a private, non-profit corporation. Only natural gas distribution systems are required to belong to a one-call system, but other underground utility operators participate voluntarily. Although most other states have similar structures, some (Missouri, South Carolina) require annual audits and reports to a state entity such as a public service commission, legislature, etc. Some states actually select the one-call vendor through a competitive process. In addition, some other states allow broader representation of stakeholders among the voting membership and board of directors.

- ***Funding Utility Damage Prevention.*** If Tennessee wants to strengthen its utility damage prevention efforts, policymakers will need to address several issues related to enforcement, including how such efforts might be funded.

The report addresses other issues including unknown and abandoned lines, rural utilities, training, planning and design, dispute resolution, and improving coordination and communication.

Next Steps

Until PHMSA completes its rulemaking processes, comprehensive legislation revising Tennessee's utility damage prevention program may be premature. Several issues, however, seem likely to emerge, and Tennessee would be prudent to work on these in anticipation of federal action.

[2] Tennessee Code Annotated, Title 65, Chapter 31.

In the meantime, the Tennessee Regulatory Authority and the Tennessee One-Call System should convene representatives of all stakeholder groups and discuss ways to enhance utility damage prevention. The Common Ground Alliance arrived at its "best practices" through a series of meetings with all stakeholders. A similar group could be convened in Tennessee to work out a set of recommendations.

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Introduction

Under Tennessee's surface lay various utility pipes, cables, and wires. Many run together in highway and railroad rights-of-way, while others cross yards, farms, and businesses. Each time someone digs into the ground, whether to build a road or to plant a tree, these underground utilities may suffer damage and damage to some utilities, such as natural gas, can be extremely dangerous. Other breaches may cause unnecessary inconvenience and expense.

Public Chapter 470, Acts of 2009, directed TACIR to study the effectiveness of Tennessee's current underground utility damage prevention program including

- reviewing federal standards and other state initiatives to improve their programs and whether a reduction in underground damage has resulted;
- determining whether any legislative action is needed to improve the effectiveness of the program, including but not limited to, provisions related to program enforcement; and
- if a need for improvement is found, recommending to the legislature what entity or entities would be best suited to undertake further responsibilities.

The bill as introduced (House Bill 852, Senate Bill 818) would have made broad changes to Tennessee's Underground Utility Damage Prevention Act (Tennessee Code Annotated § 65-31-101 et seq.), including some controversial ones affecting utility operators other than the natural gas pipeline operators regulated by the Tennessee Regulatory Authority (TRA). The stated purpose of those changes was to enhance the damage prevention program and bring it into compliance with federal law. Federal officials have suggested that many states need to strengthen their underground utility protection laws, but have not been specific about the consequences if states do not. Without some revisions, the Tennessee Regulatory Authority may be at risk of losing funds for gas pipeline inspections, as well as control over the program.

In September 2009, representatives of the TRA and Tennessee's One-Call System testified in favor of the legislation before TACIR. In December 2009, the Commission heard testimony from various other stakeholders, several of which opposed changes. The Commission decided not to recommend statutory or programmatic changes because the PHMSA is in the midst of a rulemaking process that is not expected to be complete until fall 2011.

This report provides an overview of Tennessee's utility damage prevention programs and explores whether changes are needed to protect the public and/or improve the program's effectiveness.

Damage Prevention in the Federal Context

Aside from efforts by individual public utilities to protect their own in-ground facilities, the only governmental involvement in underground utility damage prevention in Tennessee is through

(1) the federal natural gas and hazardous liquid pipeline safety program operated in conjunction with the Tennessee Regulatory Authority's Gas Pipeline Safety Division and

(2) enforcement by local authorities of criminal penalties for violation of Tennessee's Underground Utility Damage Prevention Act (UUDPA).

The UUDPA[3] authorizes underground utility operators to form a "one-call" notification service for excavation and demolition, but this service—the Tennessee One-call System—operates as a private, non-profit corporation. Only natural gas distribution systems are required to belong to a one-call system, but other underground utility operators participate voluntarily. And only natural gas systems are subject to the TRA's safety regulations.

Safe Pipeline Operation. Primary responsibility for the safe operation of natural gas and hazardous liquid pipelines is vested in the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA is responsible for regulating and ensuring the safe and secure movement of hazardous materials to industry and consumers by all modes of transportation, including pipelines. PHMSA acts through its Office of Pipeline Safety (OPS) to ensure safety in the design, construction, operation and maintenance, and spill response planning of America's 2.3 million miles of natural gas and hazardous liquid transportation pipelines.[4]

The TRA's Gas Pipeline Safety Division (GPSD) is responsible for more than 33,884 miles of intrastate pipelines and 3 liquefied natural gas facilities that transport natural gas to over 1,161,457 customers. Through the GPSD, the authority regulates private gas distribution systems, gas utility districts, municipalities distributing natural gas, master meter systems, direct sales customers, and natural gas intrastate pipeline companies (Tennessee Code Annotated § 65-28-106 and by certification of the program under Pipeline Safety Improvement Act of 2002, 49 United States Code § 60101 et seq.).[5] The federal OPS is responsible for the safe operation of other hazardous liquid pipelines in Tennessee. The same is true in most states.

The division's engineers inspect facilities and construction sites, review documents, investigate incidents and issue violations of non-compliance with safe operation requirements. Should the operator not make progress toward correcting cited

[3] Tennessee Code Annotated, Title 65, Chapter 31.

[4] http://phmsa.dot.gov/about/agency. Accessed 11 May 2010.

[5] http://www.tennessee.gov/tra/gaspipefiles/Justification_for_Inspections.pdf. Accessed 11 May 2010.

violations, Tennessee Code Annotated § 65-28-108 provides for the assessment of a civil penalty not to exceed $10,000 for each such violation and for each day that such violation persists. The maximum fine is $500,000.

According to its website, the division encourages prevention of third party damage to natural gas and other underground facilities through the enforcement of Tennessee's Underground Utility Damage Prevention Act, but it does not have any authority under that act.[6]

Protection from Third-party Damage. The federal Pipeline Inspection, Protection, Enforcement, and Safety (PIPES) Act of 2006 requires anyone engaging in demolition, excavation, tunneling, or construction in the vicinity of a natural gas or hazardous liquid pipeline to use states' one-call notification systems to establish the location of the underground facilities. It also requires owners and operators of pipeline facilities to respond appropriately to prevent pipeline damage by marking their lines. The PIPES Act imposes further requirements on excavators, including a requirement to report pipeline damage incidents.[7] Each state has its own damage prevention act; all authorize or require one-call notification systems. Tennessee's act covers three main elements:

- notification of planned excavation or building demolition
- marking the location of underground utilities where excavation or demolition is planned
- safe excavation and demolition

Tennessee's Underground Utility Damage Prevention Act does not create a program as much as it simply imposes requirements on underground utility operators and those who excavate near underground utilities. Violations are misdemeanors carrying fines of up to $2,500, imprisonment for up to 48 hours, or both. These penalties may be enforced by any local or state law enforcement officer or any permitting agency inspector. An excavator who complies with the notification requirements, but nevertheless damages an underground facility because the operator failed to locate it as required, is not liable for the damage.[8]

The Act covers all types of utilities, not just pipelines. The notification process must be used by anyone who demolishes a building or excavates in a street, highway, public space, private easement of a utility operator, or within 100 feet of the pavement edge of a street or highway.[9] Excavation does not include tilling soil for agricultural purposes

[6] http://www.tennessee.gov/tra/gaspipefiles/Justification_for_Inspections.pdf. Accessed 12 May 2010.

[7] The PIPES Act was a broad bill with many provisions to enhance the safety, environmental protection, and reliability of the nation's pipelines.

[8] Tennessee Code Annotated § 65-31-112.

[9] Tennessee Code Annotated § 65-31-104.

except for subsurface activities, nor does it include digging holes for fence posts on private property except in the areas listed in the law.[10]

Once notified of pending excavation or demolition, underground utility operators have a limited time to mark their utilities. The law is very specific about how they must be marked. With one exception, underground utility operators may either participate in a one-call service or file notices with the county register of deeds stating that they have utilities in the area and providing contact information so that the county register can provide that information upon request.[11] The one exception is natural gas distribution systems, which are required to participate in a one-call service for mutual receipt of notifications of excavation or demolition, which can be formed by utility operators in any defined geographic area.[12] A single statewide entity, the Tennessee One-Call System, was formed in 1983 for this purpose.

The Federal Context

The Pipeline and Hazardous Materials Safety Administration is responsible for ensuring that the nation's pipelines are safe, reliable, and environmentally sound. From the federal level, PHMSA staff oversee the development and implementation of regulations governing pipeline construction, maintenance, and operation. PHMSA shares these responsibilities with state regulatory partners. Minimum pipeline safety standards established under federal law through PHMSA's rule-making authority are found in the U.S. Code of Federal Regulations (CFR), Title 49 "Transportation," Parts 190-199.

Within PHMSA, the Office of Pipeline Safety has overall regulatory responsibility for the hazardous liquid and gas pipelines under its jurisdiction, but state regulatory agencies are responsible for the majority of pipeline inspections—mainly *intra*state natural gas pipelines. States may be *certified* by the OPS to take broad responsibility for regulating *intra*state pipelines, including responsibility for enforcement actions. States that are not certified may by agreement with the OPS inspect intrastate pipelines for federal safety violations. State responsibility for *inter*state pipelines is limited by federal law to inspection; enforcement responsibility remains with the OPS in such cases.[13]

> ***Certification.*** While the Federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, the pipeline safety statutes provide for state assumption of the *intra*state regulatory, inspection, and enforcement responsibilities under an annual certification. To qualify, a state must adopt the minimum federal regulations and may adopt additional or more stringent regulations as long as they are compatible with the federal regulations. A state must also provide for injunctive and monetary sanctions substantially the same as those authorized by the federal pipeline safety statutes.

[10] Tennessee Code Annotated § 65-31-102(4).

[11] Tennessee Code Annotated § 65-31-105(a).

[12] Tennessee Code Annotated § 65-31-107.

[13] http://primis.phmsa.dot.gov/comm/InspectionEnforcement.htm. Accessed 5 May 2010.

Agreement. A state agency that does not satisfy the criteria for certification may enter into an agreement to undertake certain aspects of the pipeline safety program for *intra*state facilities on behalf of OPS. While the state agency under an agreement will inspect pipeline operators to ascertain compliance with federal safety regulations, any probable violations are reported to OPS for enforcement action.

Interstate Agent. Federal pipeline statutes provide for exclusive federal authority to regulate interstate pipelines. OPS may authorize a state to act as its agent to inspect interstate pipelines, but retains responsibility for enforcement of the regulations. Nine states act as interstate agents.

States participating in the federal programs are listed in Figure 1. Alaska and Hawaii are the only states not participating.

Figure 1. States Participating in the Federal/State Cooperative Gas and Hazardous Liquid Pipeline Safety Programs, Calendar Year 2010

	Natural Gas Program		Hazardous Liquid Program
Certification	Alabama Arizona Arkansas PSC Arkansas Oil and Gas California* Colorado Connecticut Delaware District of Columbia Florida PSC Georgia Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri	Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania Puerto Rico Rhode Island South Carolina South Dakota **Tennessee** Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming	Alabama Arizona California (Fire Marshal) Louisiana Maryland Minnesota Mississippi New Mexico New York Oklahoma Pennsylvania Texas Virginia Washington West Virginia
	** California PUC does not exercise jurisdiction over municipal operators.*		
Agreement	Virginia (municipal systems) Pennsylvania (gas cooperatives)		Kentucky

	Note: Some states may have both a certification and an agreement for participating in the pipeline safety program. This may be due to the way state enforcement laws are written. For example, Virginia has a certification for enforcement of the safety regulations for investor-owned natural gas operators and has an agreement for the inspection of the municipal gas operators in the state.		
Interstate Agents	Arizona Connecticut Iowa Michigan Minnesota	New York Ohio Washington West Virginia	Arizona California (Fire Marshal) Minnesota New York Virginia Washington

Source: PHMSA, http://primis.phmsa.dot.gov/comm/CoopList.htm. Accessed 11 May 2010.

In October 2009, PHMSA issued an Advance Notice of Proposed Rulemaking (ANPRM) under the federal PIPES Act of 2006 in which it noted that excavation damage to gas and hazardous liquid pipelines is the single leading cause of pipeline failure incidents, and more effective state damage prevention programs are a key to further reductions in pipeline damage incidents.[14] Damage prevention has been and continues to be mainly a state function, not a federal responsibility. The following statement appears on PHMSA's website:

> *We have consistently taken a non-regulatory approach to pipeline damage prevention. However, we have used Advisory Bulletins to emphasize important actions pipeline operators can take to protect their pipelines. In May 2002, we urged pipeline operators to follow the CGA [Common Ground Alliance] Best Practices for damage prevention. In January 2006, we described preventable accidents caused by construction-related damage and called on operators to ensure they use qualified personnel to perform critical damage prevention tasks. In November 2006, we emphasized the importance of following damage prevention best practices, especially for marking the location of underground pipelines prior to excavation.*[15]

PHMSA has taken a number of other steps to reduce excavation damage, including strengthening certification requirements and making grants to improve state programs and develop new technology, and promoting public awareness. Although PHMSA's focus and its authority is limited to pipelines, it has been promoting broader damage prevention efforts, recognizing that pipelines and gas distribution lines are often in the

[14] Federal Register, Vol. 74, No. 208, Thursday, October 29, 2009, Proposed Rules http://edocket.access.gpo.gov/2009/pdf/E9-26099.pdf.

[15] http://primis.phmsa.dot.gov/comm/DamagePrevention.htm. Accessed 13 May 2010.

same places as other underground utilities. Efforts to protect one can protect them all. To that end, Congress has authorized grants to improve states' one-call notification systems. These grants require participation by all underground facility operators, not just pipelines.[16]

State Implementation

Responsibility for regulation, inspection, and enforcement of federal pipeline safety requirements in Tennessee is divided between the state and federal governments:

- *inter*state natural gas and hazardous liquid pipeline safety requirements—federal
- *intra*state hazardous liquid pipeline safety requirements—federal
- *intra*state natural gas pipeline safety requirements—state by federal certification

The TRA's Gas Pipeline Safety Division (GPSD) is responsible for Tennessee's intrastate natural gas pipeline safety program, which is partially funded by the U.S. Department of Transportation's Pipeline and Hazardous Material Safety Administration through its Office of Pipeline Safety. The OPS monitors the performance of participating state agencies through its regional offices and is authorized to fund up to 80% of states' actual cost for their pipeline safety programs, but the actual amounts have been much less. The amount of federal reimbursement depends on the availability of appropriated funds and state program performance. The formula used to allocate funds includes

- the extent to which the state asserts safety jurisdiction over pipeline operators,
- whether the state has adopted all federal requirements, and
- the number and qualifications of state pipeline safety inspectors.

The OPS scores state programs each year to determine their eligibility for reimbursement based on the following performance factors:

(1) Adequacy of state operating practices;

(2) Quality of state inspections, investigations, and enforcement/compliance actions;

(3) Adequacy of state recordkeeping;

(4) Extent of state safety regulatory jurisdiction over pipeline facilities;

(5) Qualifications of state inspectors;

(6) Number of state inspection person-days;

(7) State adoption of applicable federal pipeline safety standards; and

[16] 49 United States Code § 6101 et seq.

(8) Any other factor the Administrator deems necessary to measure performance.[17]

According to the latest information available from the OPS web site (2008), Tennessee's program was rated 98.5 on a 100-point scale, and was scheduled to receive $291,261 or 39% of its estimated budget. (See Appendix A).

Responsibility for safe excavation and demolition near underground utilities in Tennessee falls to the excavators and utility operators themselves under the state's Underground Utility Damage Prevention Act. Enforcement of the law is the responsibility of state and local law enforcement officers and permitting agency inspectors.[18] The law establishes no relationship between the Tennessee One-Call System (TNOCS) formed by utility operators to handle notification and any governmental entity other than the member utilities themselves. Unlike the GPSD, which is a state agency that must comply with federal requirements, TNOCS is not regulated by any state or federal agency, and the law imposes no particular requirements on it, not even with respect to the notification it provides to operators and excavators. If there is a problem, responsibility falls to the operators and excavators themselves.

The Changing Federal Context

According to TRA director Eddie Roberson, increasing federal government pressure to improve states' underground utility damage prevention programs prompted the proposed changes to Tennessee's underground utility damage prevention law. PHMSA has been taking steps to improve damage prevention programs since it was created in 2004. It has done this mainly through grant programs.

Federal Grants to Improve State Safety Programs

In addition to the allocations for the states' pipeline safety programs, PHMSA makes smaller grants to state agencies to improve pipeline safety.[19]

- **State Damage Prevention Grants.** The federal Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006 (PIPES Act) authorizes PHMSA to award grants to fund improvements in state damage prevention programs. According to its web site, PHMSA is in the process of awarding these grants for 2010. States are encouraged to implement the 9 elements of an effective damage prevention program set forth in the PIPES Act. (See page 17.) The TRA was awarded grants in 2008 ($64,500) and 2009 ($87,870) specifically to address element 7:

[17] 49 Code of Federal Regulations § 198.13.

[18] Tennessee Code Annotated § 65-31-112(b)(1).

[19] http://primis.phmsa.dot.gov/comm/DamagePreventionGrantsToStates.htm. Accessed 19 August 2010.

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.

The 2008 grant also proposed to lay out a 4-year plan to address the other 8 elements.

- **One-Call Grants**. PHMSA's One-Call Grants provide funding to state agencies to promote damage prevention, including changes to state underground damage prevention laws, related compliance activities, training and public education. Congress first authorized the grants under the Accountable Pipeline Safety and Partnership Act of 1996, Public Law 104-304. This optional grant program has a maximum annual request of $45,000 per state and supports initiatives to further promote efforts specifically for damage prevention, including one-call legislation, related compliance activities, training and public education. This optional grant is open only to states that have a certification or agreement with PHMSA to do pipeline safety inspections. State agencies that participate in the pipeline safety program are eligible to apply for one-call grant funding each year.

- **Transportation Equity Act for the 21st Century (TEA-21) Grants.** The present State Damage Prevention Grants are not the federal government's first effort to influence states' damage prevention programs. Section 6105 of TEA-21, passed by Congress in 1998, authorized the United States Department of Transportation (DOT) to study damage prevention practices associated with existing one-call notification systems. This directive resulted in the development of the *Common Ground Study,* a collection of best practices in one-call and damage prevention programs. TEA-21 also authorized PHMSA to award pipeline safety damage prevention grants to help states implement best practices to prevent damage to underground utilities and improve the overall quality and effectiveness of one-call notification systems. PHMSA awarded $6 million in 2001 and 2003 to state agencies to fund a wide range of education efforts, communications system improvements, and enforcement of State requirements for damage prevention. The TEA-21 grant program has expired, but was a key step toward establishing more effective, broad damage-prevention programs in the states.

Concerns about Continued Federal Funding

An August 2007 report by Tennessee's Comptroller of the Treasury raised concerns that PHMSA may reduce funding for Tennessee's pipeline safety program at some point because it did not fully comply with federal law. That report covered a period before the federal PIPES Act was passed, but the issue raised was not altered by that legislation or any other state or federal action:

Tennessee's Underground Utility Damage Prevention legislation need(s) to be further improved by the adoption of injunctive relief and civil

penalties substantially the same as provided for in the federal requirements.[20]

Moreover, the PIPES Act added language authorizing PHMSA to take enforcement action against excavators for violations, even in a certified state, if the Secretary of Transportation determines that the state's own enforcement is inadequate. The Secretary is required to issue rules to implement this provision. PHMSA issued an advance notice of proposed rulemaking on October 29, 2009,[21] in which it describes and solicits comments on how it proposes to determine when a state program is inadequate. Proponents of the bill that became Public Chapter 470 did not have the benefit of the guidance this rulemaking notice provides. The rule-making process is expected to take about two years, meaning that rules would not be issued until fall 2011.[22] Although neither the federal law nor this notice directly states that such action by the Secretary would affect federal funding of the states' programs, that is the logical inference. Each state's eligibility for funding depends on certification that, in turn, depends on the adequacy of state practices.

Proposed Federal Rules

According to the advance rulemaking notice, "a threshold criterion for determining the adequacy of a state's damage prevention enforcement program will be whether the state has established and exercised its authority to assess civil penalties for violation of its one-call law." This is a key issue, but the notice goes on to list others that PHMSA proposes to consider when evaluating the enforcement component of state damage-prevention programs:

- Does state law require gas and hazardous liquid pipeline operators to be members of and participate in the state's one-call system?
- Does state law require all excavators to use the state's one-call system and request that underground utilities be located and marked before digging?
- Has the state avoided giving exemptions to its one-call damage prevention laws to state agencies, municipalities, agricultural entities, railroads, and other groups of excavators?
- Are the state's requirements detailed and specific enough to allow excavators to understand their responsibilities before and while digging in the vicinity of a pipeline?

[20] John G. Morgan, Comptroller of the Treasury, Division of State Audit, *Tennessee Regulatory Authority*, August 2007, p.14.

[21] Federal Register, Vol. 74, No. 208, Thursday, October 29, 2009, Proposed Rules http://edocket.access.gpo.gov/2009/pdf/E9-26099.pdf.

[22] Telephone interview with Annmarie Robertson, Damage Prevention Program Manager, Division of Program Development, PHMSA (24 May 2010).

- Are excavators required to report all pipeline damage incidents to the affected pipeline operators?
- Does state law require that 911 be called if a pipeline damage incident causes a release of hazardous products?
- Has the responsible state agency established a reliable mechanism to ensure that pipeline damage incidents are reported to it timely?
- Does the responsible state agency investigate all excavation damage to pipeline incidents to determine
    - whether the excavator appropriately used the one-call system to request a facility locate,
    - whether a dig ticket was generated,
    - how quickly the pipeline operator responded,
    - whether the pipeline operator followed all of its applicable written procedures,
    - whether the excavator waited the appropriate time for the facilities to be located and marked,
    - whether the pipeline operator's markings were accurate, and
    - whether the digging was conducted responsibly?
- Does the state's damage prevention law authorize civil penalties, and are the maximum penalties similar to the federal maximums?
- Has the state designated a state agency with responsibility for administering the damage prevention laws?
- Does the state official responsible for determining whether to proceed with an enforcement action document the reasons for the decision in a transparent and accountable manner, and are the records of these investigations and enforcement decisions made available to PHMSA?
- Is the state actually exercising its civil penalty authority when enforcement action is taken, does the amount of the civil penalties reflect the seriousness of the incident, and are remedial orders given to the violator legally enforceable?
- Are annual statistics on the number of excavation damage incidents, investigations, enforcement actions, penalties proposed, and penalties collected made available to PHMSA and to the public?

Further, the rulemaking notice seeks comment on standards for excavators and poses the following questions:

- Should the federal standards for excavators be limited to the minimum requirements in federal law, or should they be more detailed and extensive?
- Will implementing the 911 requirement cause any unintended consequences in practice?
- Are there suggested alternatives to these standards?

The standards listed are to

- use a one-call system before digging,
- wait the required time,
- excavate with proper regard for location information or markings established by the pipeline operator,
- promptly report any damage to the pipeline operator, and
- report any release of hazardous products to appropriate authorities by calling 911.

The ANPRM also solicited comment on the administrative process PHMSA would follow to make its adequacy determination; federal standards for excavators that PHMSA would enforce and the adjudication process it would follow when a state program was deemed inadequate; and existing requirements for pipeline operators to participate in one-call organizations, respond to dig tickets, and perform their locating and marking responsibilities. Comments were due by December 14, 2009, but the comment period was held open through March 2010. The TRA's comments are included in Appendix B.

Response to the Federal Changes—*Are legislative changes needed in Tennessee?*

The questions posed by PHMSA in the advance notice of proposed rulemaking are key to determining whether Tennessee's damage prevention program will comply with federal requirements and whether changes are needed in state law. But there are broader issues related to preventing damage to underground utilities. Tennessee's current damage prevention law applies to all underground utilities and all excavation in areas where they are known or likely to be located. The issue of whether or how state law should be changed as it affects those other utilities is a separate but related question. An undated letter from PHMSA to the TRA announcing new grants promoting adoption of the 9 elements under the PIPES Act speaks of an initiative to improve all underground utilities:

> *We are advocating an excavation damage prevention program to protect all pipelines as well as telecommunications, water and sewer and other vital lifelines on which your citizens depend. Construction related damage*

is an all too frequent threat to our safety and the continuity of services we need to live and work.[23]

Damage Prevention Models

To find potential models to consider when revamping Tennessee's underground utility damage prevention law, staff looked to three sources:

- federal requirements
- successful programs in other states
- industry or consensus best practices

While the PIPES Act and the ANPRM issued by PHMSA in October 2009 are probably the best guidance to use in shaping Tennessee law, it is impossible to anticipate what the rules for adequate state damage prevention programs will ultimately be. As noted earlier, they will not be known for at least another year as PHMSA works through the federal rule-making process. Just as there was a comment period for the ANPRM, there will be one for the rules that PHMSA will propose, and it is likely that the proposed rules will be modified before they are finalized.

Federal Requirements. Pertinent federal laws include Title 49, Chapters 61 (One-call Notification Programs) and 601 (Pipeline Safety) along with the regulations issued pursuant to them. The stated purposes of Chapter 61 are

(1) to enhance public safety;

(2) to protect the environment;

(3) to minimize risks to excavators; and

(4) to prevent disruption of vital public services,

by reducing the incidence of damage to underground facilities during excavation through the voluntary adoption and efficient implementation by all states of state one-call notification programs that meet the minimum standards set forth under section 6103. Minimum standards in Chapter 61 pertain to qualifying for grants to improve

(1) the overall quality and effectiveness of one-call notification systems in the State;

(2) communications systems linking one-call notification systems;

(3) location capabilities, including training personnel and developing and using location technology;

(4) record retention and recording capabilities for one-call notification systems;

[23] Letter to Director Eddie Roberson, Tennessee Regulatory Authority, from Carl T. Johnson, Administrator, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, undated.

(5) public information and education;

(6) participation in one-call notification systems; or

(7) compliance and enforcement under the state one-call notification program.

While the minimum standards apply only to grant recipients, they may suggest the direction the new federal rules will ultimately follow:

(a) **Minimum Standards—**In order to qualify for a grant under section 6106, a State one-call notification program shall, at a minimum, provide for

(1) appropriate participation by all underground facility operators, including all government operators;

(2) appropriate participation by all excavators, including all government and contract excavators; and

(3) flexible and effective enforcement under State law with respect to participation in, and use of, one-call notification systems.

(b) **Appropriate Participation—**In determining the appropriate extent of participation required for types of underground facilities or excavators under subsection (a), a state shall assess, rank, and take into consideration the risks to the public safety, the environment, excavators, and vital public services associated with

(1) damage to types of underground facilities; and

(2) activities of types of excavators.

(c) **Implementation—**A state one-call notification program also shall, at a minimum, provide for and document

(1) consideration of the ranking of risks under subsection (b) in the enforcement of its provisions;

(2) a reasonable relationship between the benefits of one-call notification and the cost of implementing and complying with the requirements of the state one-call notification program; and

(3) voluntary participation where the state determines that a type of underground facility or an activity of a type of excavator poses a de minimis risk to public safety or the environment.

(d) **Penalties—**To the extent the state determines appropriate and necessary to achieve the purposes of this chapter, a state one-call notification program shall, at a minimum, provide for

(1) administrative or civil penalties commensurate with the seriousness of a violation by an excavator or facility owner of a State one-call notification program;

(2) increased penalties for parties that repeatedly damage underground facilities because they fail to use one-call notification systems or for

parties that repeatedly fail to provide timely and accurate marking after the required call has been made to a one-call notification system;

(3) reduced or waived penalties for a violation of a requirement of a state one-call notification program that results in, or could result in, damage that is promptly reported by the violator;

(4) equitable relief; and

(5) citation of violations.

Chapter 61 also requires the Secretary of Transportation to encourage states, operators of one-call notification programs, excavators (including all government and contract excavators), and underground facility operators to adopt and implement practices identified in the best practices report entitled "Common Ground", as periodically updated. The chapter explicitly does not preempt state law or impose new requirements on states, nor does it mandate revisions to one-call systems.[24]

The stated purpose of Chapter 601 is to provide adequate protection against risks to life and property posed by pipeline transportation and pipeline facilities by improving the regulatory and enforcement authority of the Secretary of Transportation. It requires the Secretary to prescribe minimum safety standards for pipeline transportation and for pipeline facilities that

(a) apply to owners and operators of pipeline facilities;

(b) may apply to the design, installation, inspection, emergency plans and procedures, testing, construction, extension, operation, replacement, and maintenance of pipeline facilities; and

(c) shall include a requirement that all individuals who operate and maintain pipeline facilities shall be qualified to operate and maintain the pipeline facilities.

Chapter 601 is very broad—much broader than the issues raised by the bill that prompted this report. Section 60134, which authorizes the optional State Damage Prevention Grants, is the one most directly related to those issues. It is the source of the 9 elements referred to by the TRA when explaining the need for the bill to the legislature and to TACIR (see Appendix C). To be eligible for the grants, a state must have a certified pipeline safety program or an agreement to handle record maintenance, reporting, and inspection under the federal pipeline safety law and it must either

(A) have in effect an effective damage prevention program that meets the requirements of subsection (b); or

(B) demonstrate that it has made substantial progress toward establishing such a program, and that such program will meet the requirements of subsection (b).

[24] 49 United States Code § 6108.

Subsection (b) of Section 60134 lists the ***9 elements of an effective damage prevention program***:

(1) 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.

(2) 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.

(3) A process for reviewing the adequacy of a pipeline operator's internal performance measures regarding persons performing locating services and quality assurance programs.

(4) 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.

(5) A process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities.

(6) A process for resolving disputes that defines the state authority's role as a partner and facilitator to resolve issues.

(7) 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.

(8) A process for fostering and promoting the use, by all appropriate stakeholders, of improving technologies that may enhance communications, underground pipeline locating capability, and gathering and analyzing information about the accuracy and effectiveness of locating programs.

(9) A process for review and analysis of the effectiveness of each program element, including a means for implementing improvements identified by such program reviews.

Some of the 9 elements are reflected in the list of questions posed by PHMSA in its October 2009 ANPRM (listed on pages 12 and 13), but it is important to note that it will be the regulations that come out of the process initiated by the ANPRM, and not the 9 elements, that PHMSA will use to judge the adequacy of state programs when determining whether to take enforcement responsibility back from states whose pipeline safety programs it has certified. One significant difference between the 9 elements and the mandatory parts of Chapter 601 is that the 9 elements contemplate inclusion of all underground utilities while the mandatory sections apply only to pipelines.

Chapter 601 also includes a section on one-call notification systems, specific to pipelines, that requires the Secretary of Transportation to "prescribe regulations

providing minimum requirements for establishing and operating a one-call notification system for a state to adopt that will notify an operator of a pipeline facility of activity in the vicinity of the facility that could threaten the safety of the facility."[25] That section places certain prohibitions on excavators and on underground pipeline facility owners and operators, but also places the following limitation on the Secretary:

> *The Secretary may not conduct an enforcement proceeding under subsection (d) [against excavators] for a violation within the boundaries of a state that has the authority to impose penalties described in section 60134 (b)(7) against persons who violate that state's damage prevention laws, unless the Secretary has determined that the state's enforcement is inadequate to protect safety, consistent with this chapter, and until the Secretary issues, through a rulemaking proceeding, the procedures for determining inadequate State enforcement of penalties.*

These prohibitions and limitations were added in 2006 by the PIPES ACT. PHMSA's October 2009 ANPRM is the Secretary's first step toward establishing the rules that must be in place before PHMSA can take enforcement action against excavators. Minimum requirements for state one-call systems have been in place since 1990 when the Secretary issued the first set of rules under this section of the law (see Appendix D). The list of requirements was amended in 1996 to add the following:

> *a requirement for sanctions substantially the same as provided under sections 60120 and 60122 of this title.*

Section 60120 pertains to civil enforcement actions and authorizes injunctions, punitive damages, and civil penalties. Civil penalties are further described in Section 60122:

(1) Marking violations (Section 60114 (b)), excavation violations (Section 60114 (d)), and violations of general safety requirement (Section 60118 (a)) or a regulation prescribed or order issued under the safety chapter (Chapter 601): a civil penalty of not more than $100,000 for each violation up to a maximum of $1,000,000 for a related series of violations. The Secretary of Transportation must give written notice and provide an opportunity for a hearing before deciding that a violation has occurred.

(2) Violations of the standards for liquefied natural gas pipeline facilities (Section 60103) or financial responsibility requirements for liquefied natural gas pipeline facilities (Section 60111): a civil penalty of not more than $50,000 for each violation. A penalty under this paragraph may be imposed in addition to penalties imposed under the preceding paragraph.

(3) Violations of protections for "whistle blowers" and similar activities (Section 60129) and any order issued thereunder: a civil penalty of not more than $1,000 for each violation.

[25] 49 United States Code § 60114.

In determining the amount of a civil penalty under this section, the Secretary must consider

- the nature, circumstances, and gravity of the violation, including adverse impact on the environment;
- with respect to the violator, the degree of culpability, any history of prior violations, the ability to pay, and any effect on ability to continue doing business; and
- good faith in attempting to comply.

The Secretary may consider the economic benefit gained from the violation without any reduction because of subsequent damages and other matters that justice requires.

Common Ground Alliance Best Practices. The "Common Ground" best practices report referred to in Title 49, Chapter 61 of the United States Code was produced under the federal Transportation Equity Act for the 21st Century (TEA-21). The purpose of the original study, published in August 1999, was to identify and validate existing best practices for preventing damage to underground facilities. The most recent update, called *Best Practices Version 6.0*, was published by the Common Ground Alliance in February 2009. It covers a broad array of practices, including

- planning and design,
- one-call centers,
- locating and marking,
- excavation,
- mapping,
- compliance,
- public education and awareness,
- reporting and evaluation, and
- homeland security.

The Alliance is governed by a 20-member board of directors, including 4 officers and 16 stakeholder seats representing the following fields and enterprises: electric, engineering and design, equipment manufacturing, excavator, gas transmission, gas distribution, insurance, locator, one-call center, oil, public works, railroad, road builder, state regulator, emergency services, and telecommunications. According to its website, "these practices address key elements to successful damage prevention programs for underground facilities including: stakeholder communication while planning construction activities; accessibility of one-call centers; accurate locating and marking; safe digging throughout excavation; education and enforcement to facilitate compliance;

marketing strategies to enhance public education; and effective reporting and evaluation of damage prevention programs."[26]

Each practice area is broken down into multiple items.[27] Each item includes a practice statement, a description, the benefits of the practice and a reference or references to examples from state, local, and federal laws, as well as industry guidelines issued by various stakeholder organizations. Relevant practices are described as issues and options elsewhere in this report. In many cases, they parallel and reference federal laws or regulations. The October 2009 ANPRM suggests that the Alliance's best practices could be used to inform the development of standards for excavators. That suggestion received mixed reviews in comments to the ANPRM with some commenters endorsing the idea and others expressing concern that best practices should be aspirational goals, not minimum requirements. Those opposed believe that if best practices were adopted as regulations, they would be watered down in future revisions and fail to serve their intended purpose.[28]

The Common Ground reports are useful not only as a source of best practices, but also for the processes used to produce the original report and to revise and update it. The 1999 report was the result of an effort led by the federal transportation department's Research and Special Programs Administration (RSPA). The RSPA brought together a diverse group of stakeholders and, using a "quality action team" model, gathered data, identified issues, and determined realistic options to resolve issues. The various teams that worked on the report used a consensus process to consider, evaluate, identify, and debate their specific best practices. Remarkably, they required 100% agreement on each best practice, which meant that the decisions made by the teams may not have been anyone's first choice, but everyone could accept and support them. Tennessee was well-represented on RSPA's teams:

- Glynn Blanton, then chief of the TRA's Gas Pipeline Safety Division was a member of the "linking team" that served as the overall review board for all of the teams. Mr. Blanton served as liaison to the compliance and public education task teams.
- Truman Murray, a registered engineer in Tennessee who worked with the Tennessee One-call System since its 1983 beginning, was a member of the team that focused on finding ways to bring stakeholders into compliance with existing damage prevention program laws and regulations. Mr. Murray's background was in both rural and urban municipal electric, gas, water, and wastewater systems.
- William B. (Bill) Turner, executive director of the Tennessee One-call System, both then and now, served as the co-chair of the reporting and evaluation team.

[26] http://www.commongroundalliance.com/Content/NavigationMenu/Best_Practices/Common_Ground_Study/Common_Ground_Study.htm. Accessed 19 May 2010.

[27] Except Homeland Security, which has only one.

[28] Comments on the ANPRM were published on the Internet at http://www.regulations.gov/search/Regs/home.html#docketDetail?R=PHMSA-2009-0192.

The Common Ground Alliance grew out of this effort. The Alliance continues to use a 100% consensus process, which the members regard as the single element of the process that gives the Alliance and its adopted best practices their integrity and ensures that "all elements of an issue are vetted comprehensively."[29] Member organizations from Tennessee include

- Knoxville Utilities Board,
- Tennessee One-Call System Inc.

along with a number of businesses that operate within the state (e.g., Atmos Energy Corporation).

Other States' Programs. Because the federal government is encouraging all states to strengthen their utility damage prevention laws and practices, comparing Tennessee to other states may be useful. To determine each state's progress toward implementing the "Nine Elements of Effective Damage Prevention" from the federal PIPES Act of 2006, PHMSA evaluators rated each state on its implementation of each element.[30] Evaluators also relied to some extent on the Common Ground Alliance Best Practices. Both sets of criteria are viewed as national models for utility damage prevention.[31]

PHMSA evaluators rated eight states (Arizona, Georgia, Louisiana, Maine, Minnesota, New Hampshire, Vermont, and Virginia) as having "largely implemented" all nine elements. Four more states lack only one element (Iowa, Massachusetts, Texas, and Utah).

According to the table, Tennessee has largely implemented three elements and partially implemented five. Element 3 is noted as "No information available or not applicable." A review of

The PIPES Act Elements:

Element 1—Enhanced Communication between Operators and Excavators

Element 2—Fostering Support and Partnership of all Stakeholders

Element 3—Operator's Use of Performance Measures for Locators

Element 4—Partnership in Employee Training

Element 5—Partnership in Public Education

Element 6—Enforcement Agencies' Role to Help Resolve Issues

Element 7—Fair and Consistent Enforcement of the Law

Element 8—Use of Technology to Improve the Locating Process

Element 9—Data Analysis to Continually Improve Program Effectiveness

[29] Common Ground Alliance, Best Practices Version 6.0, published February 2009, page 4. http://www.commongroundalliance.com/Content/NavigationMenu/Best_Practices/Best_Practices_2009/Best_Practices_Version_6_0.htm. Accessed 4 June 2010.

[30] PHMSA Stakeholder Communications: Results of State Damage Prevention Program Characterizations. http://primis.phmsa.dot.gov/comm/sdppc.htm. Accessed 19 August 2010.

[31] See also http://primis.phmsa.dot.gov/comm/DamagePrevention.htm.[31]

the comments on Tennessee's evaluation form indicates little or no implementation in the following areas:

- Collection of damage data—Although operators are encouraged to fill out damage report forms, it is not required. (1.o) Data is also not available to the public. (9.h.)

- Representation of stakeholders on one-call board—All of Tennessee's members are facility owners. Although there is one excavator member, he/she cannot vote. Although not noted by PHMSA, the board also lacks any general government members.

- Results of damage reports are quantified against a standardized risk factor, (e.g. damages per 1000 locates). (9.f.)

Tennessee received partial credit for many items, however, because of the proposed legislation, not because of actual practice. For example, PHMSA noted that

- Tennessee presently lacks due process for resolving disputes related to damage prevention but that it is addressed in the proposed legislation and

- a damage prevention enforcement authority is not defined by state law or regulation; local law enforcement are responsible for enforcement. Proposed legislation would give enforcement authority to the TRA.[32]

Assessing Program Effectiveness

Considering whether and how to strengthen Tennessee's utility damage prevention statutes raises questions about the present program's effectiveness and whether damage incidents would decrease if policies and practices were changed. What does data show about present damage incidents and trends? What factors will PHMSA consider to determine whether state programs are effective?

Damage Incidents and Trends. Nationally, data reported by the states to the Common Ground Alliance through its Data Information Reporting Tool (DIRT), indicate that for the period 1989-2008, 78% of 76,321 known excavator events were caused by contractors or developers. Occupants and farmers comprise the next largest category at 8%. However, 41% of the 2008 reported events did not identify the type of excavation. Of the events for which the type of work was known, the combination of sewer and water was responsible for 32%, while energy and telecommunications[33] was responsible for 25%.[34] CGA cautions, however, that because event data is voluntarily

[32] See also http://primis.phmsa.dot.gov/comm/SDPPCDiscussion.htm.

[33] Energy/telecommunications includes natural gas, electric, steam, liquid, telecommunications, and cable television.

[34] 2008 CGA DIRT Analysis and Recommendations, Common Ground Alliance, released August 2009, pp. 9-10.

reported, it is not complete. Nationally, voluntary reporting has been increasing, possibly in response to the increased emphasis on data collection by PHMSA and the Common Ground Alliance.[35]

TNOCS reports that in calendar year 2008, there were 1,059 incidents of damage to underground facilities reported in Tennessee. Of these, 988 or 93% were damages to natural gas facilities. Because Tennessee does not require that damage incidents be reported, however, the actual total number is likely much greater, and because most other types of utilities are not regulated by a state agency, they are even less likely to report damage incidents.

For calendar year 2009, the TNOCS received reports of 832 damage incidents. Of these, 85% were to natural gas facilities. Damages to water facilities comprised 7.45% of the total. The numbers for all types of facilities, however, are likely underreported.

PHMSA also collects and reports significant pipeline incidents, defined as those incidents meeting any of the following conditions:

- fatality or injury requiring inpatient hospitalization,
- $50,000 or more in total costs, measured in 1984 dollars,
- highly volatile liquid releases of 5 barrels or more or other liquid releases of 50 barrels or more, or
- liquid releases resulting in an unintentional fire or explosion.

During the period 2000 through 2009, Tennessee reported 16 such incidents, with a total of 14 injuries. Property damage totaled $84,118,516; however, 2 incidents in 2008 accounted for $80.6 million of the total.[36]

Significant Incidents are those incidents reported by pipeline operators with any of the following conditions are met:

1) fatality or injury requiring in-patient hospitalization
2) $50,000 or more in total costs, measured in 1984 dollars
3) highly volatile liquid releases of 5 barrels or more or other liquid releases of 50 barrels or more
4) liquid releases resulting in an unintentional fire or explosion

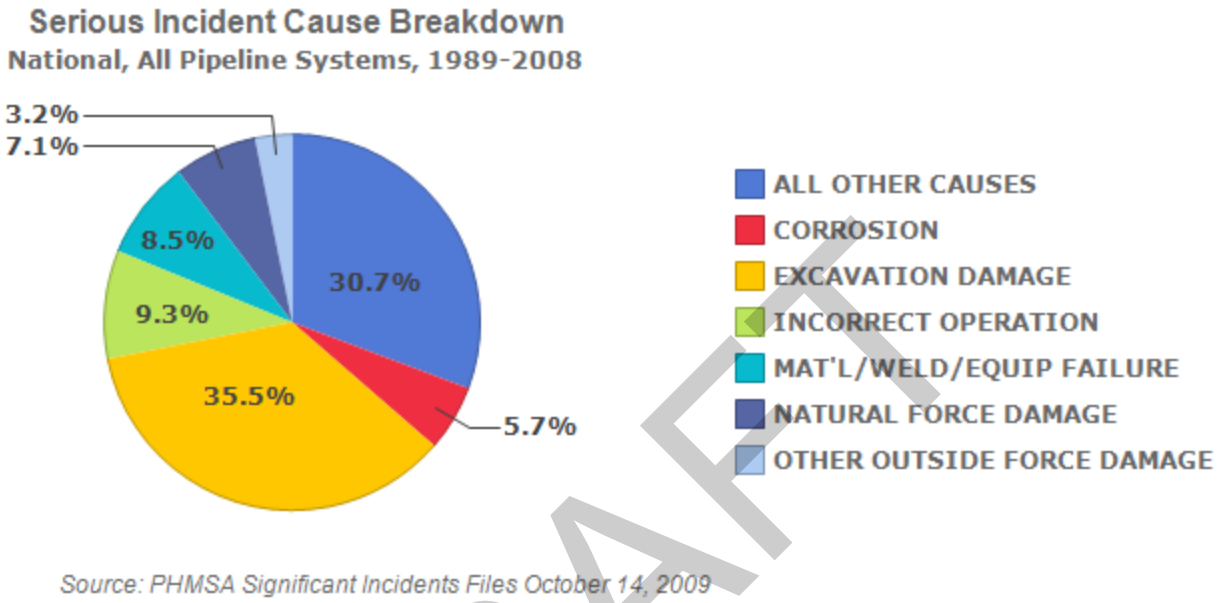
A **serious pipeline safety incident** is an event involving a fatality or injury requiring in-patient hospitalization.

PHMSA Pipeline Safety Glossary.

[35] For more information see the Common Ground Alliance's web page at http://www.commongroundalliance.com/Template.cfm?Section=DIRT_Overview&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=39&ContentID=2206.

[36] http://primis.phmsa.dot.gov/comm/reports/safety/TN_detail1.html. Accessed 19 August 2010.

According to the U.S. Department of Transportation's Pipeline and Hazardous Material Safety Administration (PHMSA), excavation damage continues to be a leading cause of serious pipeline incidents, accounting for slightly more than a third of all serious incidents. PHMSA defines a serious pipeline safety incident as an event involving a fatality or injury requiring in-patient hospitalization.[37] Serious incidents are a subset of significant incidents.[38]



Source: PHMSA Significant Incidents Files October 14, 2009

In states that have adopted changes to their utility damage prevention statutes and practices, what effects have they had?

In Georgia and Virginia, two states cited as models in utility damage prevention, incidents drastically decreased after the imposition of the new laws. The Georgia Public Service Commission indicates a drop in reported damages from 7,919 in 2006 to 4,763 in 2009, a decrease of about 40%.[39]

Virginia implemented its more comprehensive law in 1995 and maintains a statewide database that tracks damages to gas facilities and root cause data. The Division of Utility and Railroad Safety at the Virginia Corporation Commission indicates that during the period of 1996 through 2009, gas facility damages decreased from 4.49 damages per 1000 tickets in 1996 to 1.67 per 1000 tickets in 2009. Virginia officials indicate that

[37] http://primis.phmsa.dot.gov/comm/Glossary/index.htm?nocache=7307#serinc. Accessed 19 August 2010.

[38] http://primis.phmsa.dot.gov/comm/reports/safety/serpsi.html. Accessed 19 August 2010.

[39] Email from Danny McGriff, Director of Facilities Protection, Georgia Public Service Commission, February 9, 2010.

damage reporting for non-gas utilities is not as widespread and not likely to be very accurate.[40]

Elements of a Successful Regulatory Program. In deciding whether to strengthen Tennessee's utility damage prevention statutes, the General Assembly may wish to consider some basic tenants of regulation. In the 1970s and 80s many states enacted "sunset laws"—statutes requiring periodic independent review of state regulatory entities to ensure that they were both necessary and effective. These laws contain criteria that might help determine whether more or less regulation is needed and what processes should be included.

Tennessee's sunset law, the Tennessee Governmental Entity Review Law, is found in Tennessee Code Annotated, Title 4, Chapter 29. TCA §4-29-106 lists criteria for the review of governmental entities:

- the extent to which regulatory entities have permitted qualified applicants to serve the public;
- the extent to which the affirmative action requirements of state and federal statutes have been complied with by the governmental entity or the industry that it regulates;
- the extent to which the governmental entity has recommended statutory changes to the general assembly that would benefit the public as opposed to those persons it regulates;
- the extent to which the governmental entity has required the persons it regulates to report to it concerning the impact of its rules and decisions on the public with respect to improvement, economy and availability of service;
- the extent to which persons regulated by the governmental entity have been required to assess problems in the professions or vocations that affect the public;
- the extent to which the governmental entity has encouraged public participation in its rules and decision making, as opposed to participation solely by the persons it regulates;
- the degree of efficiency with which formal public complaints concerning those persons regulated by the governmental entity have been processed to completion or forwarded to appropriate officials for completion;
- the extent to which the governmental entity has considered alternative methods by which other jurisdictions have attempted to achieve the same or similar program goals;

[40] Emails from Shane Ayers, Damage Prevention Manager, Division of Utility and Railroad Safety, Virginia State Corporation Commission, February 5 and 8, 2010.

- the extent to which the governmental entity has considered the results of published and unpublished studies of various alternative methods of accomplishing the objectives of the entity;

- the extent to which the absence of regulation would endanger the public health, safety or welfare;

- the extent to which regulation directly or indirectly increases the costs of goods or services to the public;

- the extent to which the regulatory process is designed to protect and promote the public interest and the degree to which that process has attained those objectives;

- the extent to which the governmental entity has operated in the public interest, and the extent to which its operations have been impeded or enhanced by existing statutory procedures, practices of the department to which it is attached for administrative purposes, or any other relevant circumstances, including budgetary, resource and personnel matters that have affected its performance with respect to its public purpose;

- the extent to which a need actually exists for the governmental entity to engage in any one (1) of its regulatory activities;

- the extent to which the statutory requirements of the agency are necessary and are being met;

- the extent to which the governmental entity possesses clear and specific objectives and purposes;

- the extent to which the agency has effectively obtained its objectives and purposes and the efficiency with which it has operated;

- the extent to which the level of regulation exercised by the agency is appropriate and whether less or more stringent levels of regulatory activity would be desirable; and

- The extent to which changes are necessary in the enabling statutes to adequately comply with the criteria established in this section.

The Texas Licensing Model, although more geared to occupational regulation, also contains criteria that may be helpful.[41]

[41] Texas Sunset Occupational Licensing Model found at http://www.sunset.state.tx.us/licensemodel09.pdf; Accessed on 20 August 2010.

- Regulation should be undertaken to protect the public from the unqualified practice of a profession, and not to protect the regulated group.

- Regulation should be implemented at the minimum level necessary to protect the public.

- To the extent that reasonable size allows, all major groups with appropriate expertise should be represented on the board of an occupational regulatory agency.

- A free-standing licensing agency typically should be governed by a board appointed by the governor and confirmed by the senate.

- Use of advisory committees may be considered to fill a representational gap on the board or to provide special expertise to the agency.

- Getting stakeholders involved early in policy development is increasingly seen as a more efficient and effective way to provide needed expertise and a broader perspective than using advisory committees.

- A licensing agency typically should deposit licensing fees in the general revenue fund.

- The agency should also receive its major state appropriations from general revenue and not from dedicated funds in general revenue or elsewhere.

- A licensing agency should make consumer information available to the public.

- The agency should keep and report statistical information detailing the number, source, and types of complaints received and the disposition of complaints resolved.

Both of these general laws point to a need to determine actual risk to public health and safety, as well as create transparency and broad participation. Tennessee's utility damage prevention law will be more effective if it can include these characteristics.

Proposed Changes in Tennessee's Program

Because of increasing federal interest in state damage-prevention programs, policymakers are considering what changes, if any, may be needed in state statutes. Tennessee lacks a state-level comprehensive underground utility damage prevention program. The Tennessee Regulatory Authority, the Tennessee One-Call System, and local law enforcement and courts each play a role, but the system is fragmented. Other states have adopted changes that might also work in Tennessee, but some changes made elsewhere are not possible within Tennessee's present governance structure.

In September and December of 2009, TACIR heard testimony from several stakeholder groups, including the TRA, the Tennessee One-Call System, utility districts, railroads,

farmers, and contractors. The Commission decided not to recommend statutory or programmatic changes because the PHMSA is in the midst of a rulemaking process that is not expected to be complete until fall 2011.[42] The testimony, as well as other work by TACIR staff, however, raised several issues that may need to be addressed if legislation moves forward.

More Effective Damage-Incident Reporting. According to PIPES Act Element 9, states should have "*a process for review and analysis of the effectiveness of each program element, including a means for implementing improvements identified by such program reviews."* Tennessee presently lacks requirements for evaluating its overall utility damage prevention programs, although the TRA's gas pipeline regulatory efforts are inspected annually by federal officials.

Tennessee is similar to many other states on data collection. Reporting is voluntary, and non-gas utilities may not keep much data on damages. Colorado, however, has implemented a comprehensive data collection and evaluation process used to review trends and take appropriate focused actions for program improvement.[43] Virginia also analyzes data to improve a statewide education outreach program.[44] Georgia's rules require each facility owner or operator whose utility facilities have been damaged as a result of a probable violation of the one-call statutes to investigate the violation and report the results to the Public Service Commission or its designee.[45]

One of the questions posed in the October 2009 federal rulemaking notice is, "Are annual statistics on the number of excavation damage incidents, investigations, enforcement actions, penalties proposed, and penalties collected made available to PHMSA and to the public?" To further reduce damages, Tennessee will likely need to make some statutory changes to improve data collection and evaluation practices.

Civil Penalties in Place of Criminal Ones. Tennessee's enforcement processes and the types of available penalties do not appear to meet the federal criteria. As noted above, Element 7 of the 2006 PIPES Act is "*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."* In addition, the federal rulemaking notice states, "a threshold criterion for determining the adequacy of a state's damage prevention enforcement program will be whether the state has established and exercised its authority to assess civil penalties

[42]Telephone Interview with Annmarie Robertson, Damage Prevention Program Manager, PHMSA, 24 May 2010.

[43] Utility Notification Center of Colorado 2009 Analysis on Underground Facility Damage, August 11, 2010. http://www.uncc2.org/web/pdf/uncc_damage_data_report_2009.pdf. Accessed 16 August 2010.

[44] "Enhanced State Damage Prevention Programs Improve Safety," *In the Pipe,* Association of Oil Pipelines. June 18, 2007.http://www.enewsbuilder.net/inthepipe/e_article000841863.cfm, p. 3. Accessed 18 August 2010.

[45] Georgia Public Service Commission Rule 515-9-4-.05.

for violation of its one-call law." This would seem to imply, that at a minimum, Tennessee will need to establish a civil penalty process.

As noted previously, Tennessee lacks a state authority designated to establish policy and implement a process for levying civil penalties against operators who violate underground utility damage prevention laws. Authority to enforce the law falls to state and local law enforcement and permitting agencies, and Tennessee's penalties are criminal, not civil. Tennessee Code Annotated § 65-31-112 provides that a violation is a Class A misdemeanor, subject to a fine not to exceed $2500, or imprisonment not to exceed 48 hours, or both. A separate part of the Tennessee Code governs the operation of pipeline systems; it authorizes injunctions and civil penalties of up to $10,000 for each individual violation and up to $500,000 for a continuing series of violations[46] Most other states impose civil penalties, but the amounts vary widely. Most fall between $5,000 and $10,000 per offense with maximums from $25,000 to $100,000. A few other states such as Missouri, Arkansas, and Delaware have maximums as high as $500,000. New Jersey has a high of $1 million, but only for gas and hazardous liquid operators.[47]

Tennessee Regulatory Authority (TRA) officials and the director of Tennessee's one-call agency believe that local law enforcement personnel regard the enforcement of damage prevention requirements as a low priority because of their other responsibilities. In addition, they assert that enforcement is not applied evenly across the state.

The 2009 proposed legislation would have vested utility damage enforcement authority with TRA and a stakeholder advisory committee, raising several related questions.

- Is the TRA the best state entity to handle this new responsibility? If not, which other state agencies might be appropriate? Although most other states use their state utility regulators for this purpose, some use other entities such as the Attorney General, or other state departments. The TRA has rules for handling regulatory processes under its jurisdiction, but other departments of Tennessee's state government also may provide models for structuring a civil enforcement process. The Commissioner of Environment and Conservation, for example, levies civil penalties for various violations of water quality regulations. The penalties can be appealed to the Water Quality Control Board. The Commissioner, through the State Attorney General, also may institute proceedings for assessment in Davidson County's Chancery Court, or in the county where the violation occurred. In assessing a civil penalty the law permits the Commissioner to consider other factors such as economic deterrence, compensation for

[46] Tennessee Code Annotated § 65-28-108.

[47] Revised Statutes of Missouri 319.045(3); Arkansas Code Annotated 14271-104; Delaware Code 62-810.

loss or destruction, severity, and effectiveness of violators to correct the violation.[48]

- How much should civil penalties be? Federal regulations state that underground pipeline facility operators, excavators, and persons operating one-call notification systems who violate regulations should be subject to civil penalties substantially the same as provided under pipeline safety laws located in 49 United States Code 60101 et seq. which allow for a civil penalty up to $100,000 for each violation per day with a maximum of $1,000,000.[49]

- Should penalties for gas utilities be greater than for other types of utilities because of the greater risk? Damage to natural gas lines poses a greater threat to public safety than damage to other types of utilities, such as Cable TV. Still, damage to other types of utilities can also be disruptive and cause significant public inconvenience.

- Should the state enforcement entity be able to levy lesser penalties depending on mitigating circumstances and be able to substitute education for monetary penalties? Some states permit this, and PHMSA suggests in its advance notice of proposed rulemaking that the rules it ultimately adopts will require this flexibility in state programs when it asks whether "the amount of the civil penalties reflect the seriousness of the incident."

- Should fines and penalties go into an earmarked utility damage fund, be earmarked for some other purpose, or to the state's general fund? Some states include the revenue gained from fines and penalties to help fund the enforcement program while others restrict the use of such funds to educational purposes. Still others include revenue from fines and penalties in the state general fund.

- For what purposes should penalty funds by used? Some stakeholders who testified at the December 2009 TACIR commission meeting expressed concern that using penalties to directly fund enforcement efforts could lead to unintended actions by the regulatory entity. Several other states limit the use of such penalties to education and training.

A State Agency To Oversee The Program And Enforce Penalties. In order to strengthen utility damage prevention practices in Tennessee, the state government would need to assume a greater role. Policymakers might need to consider whether the risks to public safety and services are great enough to justify increased state intervention; and if so, how that intervention might be most effective.

[48] See TCA § 69-3-115.

[49] 49 Code of Federal Regulations § 198.37(h).

The Tennessee One-Call System Inc. is a private, non-profit corporation authorized by the damage prevention act to provide mutual receipt of notifications of excavation and demolition. According to its website, the TNOCS mission is "to act as an advance notification service to operators of underground facilities anywhere within the state." The center receives no state funds; it is funded entirely by member fees. The Internal Revenue Service indicates that in 2008 the center had $5.2 million in assets and $3.75 million in revenues.[50]

Aside from authorizing operators to form a one-call service, Tennessee's statutes provide little oversight or control over the service. Although most other states have similar structures, some (Missouri, South Carolina) require annual audits and reports to a state entity such as a public service commission or legislature. Some states actually select the one-call vendor through a competitive process (Minnesota, New Jersey) Virginia's State Corporation Commission regulates and certifies its one-call center.[51]

***Governance of the One-Call System*.** TNOCS is governed by its charter and a board of directors. Article IV of its bylaws requires that 7 of the directors, or a number sufficient to constitute a majority of the board, shall represent and be selected from the following seven major provider categories:

- water (water/wastewater, storm sewer drains)
- electric (generation, transmission, distribution)
- intra/interstate pipelines
- gas distribution
- long distance telephone
- local exchange telephone
- cable TV

The by-laws also permit representatives to be selected from other entities such as the Tennessee Association of Utility Districts and the Associated General Contractors of Tennessee. State requirements governing one-call systems affect many entities, both public and private, including utilities such as gas, electric, water, and broadband, as well as excavators and engineers. Other entities, such as railroads and highway maintenance departments, may have a presence in the same rights of way as utilities. To what extent should each of these providers have a say in the governance and regulation of Tennessee's utilities? During discussions of the proposed legislation,

[50] http://www.irs.gov/taxstats/charitablestats/article/0,,id=97186,00.html. Accessed 27 May 2010.

[51] Missouri Revised Statutes 319.022(6); South Carolina Code of Laws 58-35-70)B); Code of Virginia 56-265.16:1 and Virginia Administrative Code20VAC5-300-90. Rules governing certification, operation, and maintenance of notification center or centers; Minnesota Statutes, Chapter 216D.03(2)(c); New Jersey Statutes Annotated, 48:2-77.

issues of stakeholder representation arose in three areas—membership in the TNOCS system, membership on the TNOCS Board of Directors, and the proposal of a stakeholder advisory group. Providing a greater voice in the operation of TNOCS might help some stakeholder groups to accept changes in Tennessee's utility damage prevention laws and practices.

TNOCS Membership—As of 2010, only natural gas distribution systems are required to join Tennessee's one-call system, although many other utilities belong voluntarily. Several other states require most utilities to belong to and support the One-Call Service. The 2009 proposed legislation would have required all of Tennessee's utilities to become members.

The TNOCS by-laws allow for three membership levels: general, associate, and sustaining. Both general and associate members include any Tennessee private and public owners and operators of underground lines, systems, or other facilities, used for producing, storing, conveying, transmitting, or distributing communications, electricity, power, light, heat, gas, oil, petroleum products, water, steam, sewerage or other commodities or service who has elected to participate in the notifications center. General members pay charges of not less than $1,000 per year and have voting privileges—one vote for each $1,000 paid. Associate members pay less than $1,000, but have no voting privileges.

Sustaining members include individuals, partnerships, corporations, associations, or other entities which are not owners or operators of underground facilities, but who wish to promote the purpose of the corporation. The executive director indicates that as of May 2010, however, there are no sustaining members. If there were, they would pay a fee of $50.

TCA § 65-31-107(a) states that any operator that suffers damage as a result of not participating in a one-call service waives the right to recover damages from an excavator, provided the excavator met the provisions of the law. One utility representative, however, indicates that they recoup damages from contractors and excavators through informal processes.

TNOCS Board of Directors—The board of directors of Tennessee's one-call system represents the major utilities, but not other stakeholders. The *Common Ground Alliance Best Practices* addresses one-call agency governance. Item 3-4 states,

> *The one call center is governed by a board of directors representing the diverse makeup of the constituent groups, for example facility owners/operators, designers, contractors/excavators, and government.*[52]

[52] Common Ground Alliance Best Practices Version 7.0. March 10, 2010, p. 19; http://www.commongroundalliance.com/Content/NavigationMenu/Best_Practices/Best_Practices_2010/BP_7.0_Final_March2010.pdf. Accessed 8 June 2010.

The TNOCS bylaws also permit representatives to be selected from other entities such as the Tennessee Association of Utility Districts and the Associated General Contractors of Tennessee.

A review of the 2010 Board of Directors listed on the TNOCS website represents the groups required by its by-laws, but does not meet the CGA standard.[53] Stakeholder groups such as designers, contractors, or excavators are not represented. And although three of the members represent municipal utilities, there is no representation of state, county, or city government.

If Tennessee's utility damage prevention law were amended to require all stakeholders to become members of the one-call system, policymakers should consider the appropriate representation on the one-call board of directors. Having representation of all stakeholders in the center's governance might improve the cooperation, coordination, and participation of the various groups having an interest in utility damage prevention.

Stakeholders to Advise on Enforcement. The 2009 bill proposed a committee representing the various stakeholder groups to advise the TRA on enforcement, a model that has been successful in several other states. The composition and responsibilities, however, vary. Who should be included and what should be the method of appointment? Tennessee's proposed legislation would have the advisory committee appointed by TRA; however, in several other states the Governor appoints the advisory committee. Policymakers would need to consider the level of autonomy and objectivity needed by the advisory committee from the official enforcement entity.

A Means to Fund Utility Damage Prevention. If Tennessee wants to strengthen its utility damage prevention efforts, policymakers will need to address several issues related to enforcement, including how such efforts might be funded. Is this a matter of general public safety that should be funded by general tax revenues? Or is it sufficient to rely solely on participant fees? Is it reasonable to use revenues from penalties in the general operation of the system, or does this encourage perverse incentives to over-regulate utilities?

In addition, what is a reasonable fee to be a TNOCS member? Testimony at the TACIR meetings indicates that some utilities have elected not to participate in the Tennessee One-Call System because they think the fees are excessive. Some city officials, for example, assert that they adequately address excavation issues within their jurisdictions through their own permitting processes and that they do not benefit from the one-call services.

A comparison to Georgia and Virginia, two states that have been cited as models, indicates that Tennessee's present fees are higher than those states. Presently, utility membership fees in the Tennessee One-Call System are based on the number of member databases in which a utility wants to participate and the number of notifications they receive. All members pay at least a $250 fee and can receive up to 100 additional

[53] http://www.tnonecall.com/board of directors.html. Accessed 8 June 2010.

notifications without additional charge. Cost per notification is $1.32. All types of entities pay the same amount per notification. A member does not achieve voting status, however, unless they pay at least $1,000 annually.

Georgia charges a $200 membership setup fee plus $0.95 for each ticket for the first year. The next year is based on the previous year's usage. If an entity receives fewer than 50 tickets, the annual fee is only $25 per year; if more than 50 tickets, the annual fee is $200. Municipalities with less than 50 customers and 50 tickets per month pay $25. Virginia, which requires membership, has no membership fee, but charges $1.05 per notification.

The proposed legislation would have required all utility operators, such as water, electric, sewer, and telecommunications providers, to join. Although exceptions vary, several other states now mandate membership for more utilities and others, including Virginia, Georgia, Arkansas, and Indiana. Policymakers will need to determine whether mandating membership for all types of utilities is necessary to reduce utility damage. Policymakers may also need to consider what exceptions, if any, should be allowed. Municipalities, for example, are exempt in some states. In addition, policymakers may need to consider whether the membership fees are appropriate and encourage or discourage participation. Expanding the membership base might allow the TNOCS to reduce individual membership fees. The Tennessee Association of Utility Districts suggests that if the law is amended making membership mandatory that it be phased in over time with the largest operators joining first.[54]

Unknown and Abandoned Lines. Along with many miles of known water, sewer, gas, and electric lines, Tennessee has many underground utilities installed decades ago when governments began to provide common utility services, but failed to record their locations. Because the public employees who installed those lines have died or left employment, no one knows where these underground pipes and cables are located. How should unknown abandoned lines be addressed? How should known abandoned lines be addressed? The director of Tennessee's one-call center believes that this issue affects cities' willingness to participate in the program because the cities don't know the location of some of their abandoned lines. Representatives of the Tennessee Municipal League, however, were not aware of any city officials who had expressed this.

Rural Utilities. The proposed legislation seeks to expand protection of utility lines from any form of excavation, including use of hand tools, and would allow exemptions for agricultural purposes and digging fence post holes only on "land zoned for agriculture purposes." Present law exempts such activities on "private property." Because much of rural Tennessee is not zoned at all, this would place significantly more property owners and farmers under the one-call provisions. The Tennessee Farm Bureau testified before TACIR that they have concerns about how farmers and rural landowners will be

[54] Written Comments of the Tennessee Association of Utility Districts to the Tennessee Advisory Commission on Intergovernmental Relations on Proposed Changes to the Tennessee Underground Utility Damage Prevention Act, December 10, 2009, p.2.

addressed. They argue that although farmers dig frequently as part of their regular agricultural activities, much of their land is located in rural areas that have fewer utility lines and less excavation. At least 29 states, including Tennessee, exempt farmers from their utility damage requirements for routine agricultural activities such as cultivation.

TCA § 65-31-104 requires that a general DIG certificate be issued for agricultural land that lies outside a street, highway, public space or a private easement of an operator but within 100 feet of the edge of pavement of a street or highway when no utilities are located in the area. (Agricultural land is defined in Tennessee Code Annotated § 67-5-1004, the "Greenbelt Law.") This is a general certificate that remains valid until the land is transferred or a utility line is located within the area. In their testimony before TACIR in December 2009, Tennessee Farm Bureau officials suggested that rather than requiring farmers to call the TNOCS every time they dig, that the DIG certificates should be used to a greater extent, allowing utilities on farmland to be marked once permanently.

Training. PIPES Element 4 states: "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."

According to TRA's grant application, TNOCS presently provides training classes with locators, excavators, and other stakeholders throughout the year. The TRA, however, sees a need for additional training about the state law (particularly if it changes) and a process to involve all the stakeholders in the development of training and the system to conduct the training. In addition, individual stakeholders will need to establish internal processes to assure that their employees receive the training. The director of the One-Call Center has also noted a need for improved training for locators, and has suggested a locator certification program.

PHMSA recommends the establishment of a training committee of stakeholders to discuss and evaluate training needs and review training curricula.[55]

Planning and Design. Testimony before TACIR by the Tennessee County Highway Officials Association, the Tennessee Association of Utility Districts, the Tennessee Society of Professional Engineers, and the Associated Builders and Contractors indicates a need for improving "front-end" processes so that designers and engineers have adequate information about the location of underground utilities. Communication among relevant parties before excavation apparently needs to be strengthened. (Note: Common Ground Alliance Best Practices 2-1 through 2-15 address recommended best practices for activities prior to any actual excavation, including preparation of plats, information available to designers and engineers, and meetings between utility owners and developers.) Virginia, New York, Oregon, and Montana have included specific

[55] Ibid, p. 11.

references in their statutes that address access to the one-call service by planners and designers.[56]

Dispute Resolution. PIPES Element 6 states: *"A process for resolving disputes that defines the State authority's role as a partner and facilitator to resolve issues."* Because Tennessee lacks a state authority to address enforcement, as well as a range of penalties, it also lacks options for dispute resolution among affected parties. Some other states provide for the state authority to consider mitigating factors in levying penalties, as well as requiring other actions such as attending training classes. The proposed state legislation also would create a stakeholder advisory committee to assist in the hearing and enforcement processes.

Improving Communication, Coordination, and Compliance*.* Greater participation by all stakeholders, as well as improvements in actual field practices, might help improve efficiency and reduce damage incidents, even in the absence of statutory changes. Some owners have complained that they mark facilities as requested, but then the excavator fails to commence operations, requiring the owners to sometimes re-mark multiple times. This particularly can be a problem for small utilities with few personnel. In response to a TNOCS survey, one utility operator said this:

> *They have us do a lot of work for nothing. After the time is expired and still no work has been done, they call it in again and again till work finally does start. There ought to be some sort of compensation for the utilities that repeatedly have to remark because a job doesn't start.*

A few people also noted that the misuse of emergency locates may be a problem. TCA § 65-31-109 provides that operators do not have to comply with notice requirements in the case of emergency excavation or demolition. "Emergency" is further defined as "an imminent danger to life, health, or property whenever there is a substantial likelihood that loss of life, health, or property will result before the procedures under §§ 65-31-106 and 65-31-108 can be fully complied with." Although the law provides that persons misrepresenting an emergency excavation are subject to penalties, some people indicated that they thought it was overused without penalty.

At least two people interviewed pointed to an underlying need for better communication both between operators and excavators and with the general public. In a description of Virginia's program, the Association of Oil Pipelines states,

> *The exchange of accurate and timely information between the excavators and operators of underground facilities is at the heart of any effective damage prevention process.*[57]

[56] See Virginia Code, §56-265.17:1; 16 New York State Code Rule 753-4.14; Montana Code Annotated, 69-4-504;and Oregon Administrative Rule 952-001-0080.

[57] "Enhanced State Damage Prevention Programs Improve Safety," *In the Pipe,* Association of Oil Pipe Lines and American Petroleum Institute, Volume 1, Issue 2, June 2007, p. 10.

Next Steps

Until PHMSA completes its rulemaking processes, comprehensive legislation revising Tennessee's utility damage prevention program may be premature. Several issues, however, seem likely to emerge, and Tennessee would be prudent to work on these in anticipation of federal action.

In the meantime, the Tennessee Regulatory Authority and the Tennessee One-Call System should convene representatives of all stakeholder groups and discuss ways to enhance utility damage prevention. The Common Ground Alliance arrived at its "best practices" through a series of meetings with all stakeholders. A similar group could be convened in Tennessee to work out a set of recommendations.

If the General Assembly determines that revising Tennessee's utility damage prevention laws is necessary to protect public safety and to comply with federal law, legislation should address ways that cooperation and coordination can be improved among the various public and private entities, and what sanctions are needed to bring violators into compliance.

Appendices

Appendix A

Natural Gas Pipeline Safety Grant Allocations for 2008

STATE	REQUEST	STATE POINTS	ALLOCATION	PERCENT OF FUNDING
ALABAMA	$ 1,162,427	100	$ 577,885	39.77%
ARIZONA	1,115,705	100	554,657	39.77%
ARKANSAS	505,855	100	251,479	39.77%
CALIFORNIA_PUC	1,946,414	92	890,223	36.59%
COLORADO	417,008	95	196,944	37.78%
CONNECTICUT	744,000	100	369,869	39.77%
DELAWARE	101,158	94	47,272	37.39%
GEORGIA	1,015,251	100	504,718	39.77%
IDAHO	148,480	97	71,600	38.58%
ILLINOIS	1,051,040	100	522,510	39.77%
INDIANA	869,810	98.5	425,928	39.17%
IOWA	591,813	100	294,212	39.77%
KANSAS	571,102	100	283,915	39.77%
KENTUCKY	450,865	95	212,934	37.78%
LOUISIANA	1,192,878	100	593,023	39.77%
MAINE	225,873	100	112,290	39.77%
MARYLAND	408,016	99.5	201,825	39.57%
MASSACHUSETTS	1,159,170	99.5	573,384	39.57%
MICHIGAN	655,002	100	325,626	39.77%
MINNESOTA	1,344,613	100	668,456	39.77%
MISSISSIPPI	405,600	93.5	188,532	37.19%
MISSOURI	650,752	97	313,807	38.58%
MONTANA	47,869	93.5	22,250	37.19%
NEBRASKA	256,877	100	127,703	39.77%
NEVADA	680,542	100	338,322	39.77%
NEW HAMPSHIRE	445,950	100	221,698	39.77%
NEW JERSEY	1,014,202	99	499,155	39.37%
NEW MEXICO	777,139	99	382,481	39.37%
NEW YORK	2,662,725	100	1,323,737	39.77%
NORTH CAROLINA	421,718	98.5	206,507	39.17%
NORTH DAKOTA	68,848	99.5	34,056	39.57%
OHIO	1,227,643	98.5	601,152	39.17%
OKLAHOMA	949,724	98	462,700	38.98%
OREGON	491,716	100	244,450	39.77%

STATE	REQUEST	STATE POINTS	ALLOCATION	PERCENT OF FUNDING
PENNSYLVANIA	1,094,348	98	533,159	38.98%
PUERTO RICO	187,221	85	79,113	33.81%
RHODE ISLAND	151,498	100	75,315	39.77%
SOUTH DAKOTA	72,000	98.5	35,257	39.17%
TENNESSEE	594,800	98.5	291,261	39.17%
TEXAS	2,977,151	96	1,420,848	38.18%
UTAH	397,384	96	189,652	38.18%
VERMONT	143,192	99.5	70,830	39.57%
VIRGINIA[1]	951,580	95	449,412	37.78%
WASHINGTON	1,520,429	99	748,302	39.37%
WASHINGTON DC	240,731	99	118,479	39.37%
WEST VIRGINIA	522,400	96	249,316	38.18%
WISCONSIN	600,282	97	289,470	38.58%
WYOMING	210,568	100	104,681	39.77%
Totals	$35,441,370		$17,300,398	

Note:

The 'Request' represents 80% of the State's estimated budget.

The ‘Percent of Funding’ is the percentage of the budget represented by allocation.

[1]State Programs that have both a 60105 and 60106 program. These states have had their 60105 and 60106 funding combined and shown as the figure represented in the table, therefore budget, request and allocation figures represent funding for both programs.

[2]Within the first 3 years of a new program a minimum score of 90% shall be automatically given.

Appendix B

Tennessee Regulatory Authority's Comments in Response to the Secretary of Transportation's October 2009 Advanced Notice of Proposed Rulemaking

TENNESSEE REGULATORY AUTHORITY
460 James Robertson Parkway,
Nashville, Tennessee 37243-0505
www.tn.gov/tra

COMMENTS ON ADVANCED NOTICE OF PROPOSED RULE MAKING:
PIPELINE SAFETY AND DAMAGE PREVENTION
Docket No. PHMSA–2009-192

The Tennessee Regulatory Authority ("TRA") through its Gas Pipeline Safety Division has been delegated responsibility for enforcing the minimum federal safety standards applicable to natural gas lines in the State of Tennessee. The TRA supports and is appreciative of the Federal-State partnership that exists between the Department of Transportation and the TRA for the promotion of public safety with regard to preventing damage to underground gas facilities. The TRA has reviewed the Advanced Notice of Proposed Rule Making ("ANPRM") regarding the enforcement of pipeline damage prevention laws and respectfully offers the following comments:

- The TRA appreciates the effort of the Pipeline and Hazardous Materials Safety Administration in issuing this ANPRM to obtain input from all stakeholders in the matter of underground utility damage prevention and safety.

- The TRA's review of the ANPRM has provoked significant reflection regarding improvement of the State of Tennessee's Underground Utility Damage Prevention Act ("TUUDPA").

- The issuance of this ANPRM is beneficial to the TRA's effort to gain statewide support for amending and strengthening the TUUDPA.

- Grants for state pipeline damage prevention program improvement have been very important to the TRA's initiative. One controversial issue with regard to the establishment of an enforcement section centers on how it is to be funded. It would be beneficial if some level of annual federal funding was provided based on a state's progress in developing an adequate enforcement section or in operating an established program.

- As part of a pipeline damage prevention initiative, the TRA is attempting to modify the TUUDPA with the intent of strengthening the TRA's enforcement capabilities. Such a law affects many stakeholders, and successful passage requires a tremendous amount of communication and consensus building. Many of these stakeholders are representative organizations and associations of various utilities, local governments, local and county roads, railroads and public groups. Some of these organizations and associations have national affiliations and any help on the Federal level in promoting state pipeline damage prevention program improvement would be beneficial.

- In a similar manner, the United States Department of Transportation could support the TRA's efforts through its influence with the Tennessee Department of Transportation.

- The threshold criteria for evaluating the adequacy of a state's damage prevention program includes avoiding exemptions to its one-call damage prevention laws on behalf of state agencies, municipalities, agricultural entities, railroads, and other groups of excavators. The Tennessee Regulatory Authority does not have authority to make changes to the state pipeline damage prevention law. To minimize exemptions, much effort and time must be expended to reach consensus regarding the entities to be granted an exemption and to determine the extent of an exemption. A state agency that is making a concerted effort to make changes to its pipeline damage prevention law to meet the nine elements should not be punished by having its level of funding decreased. The TRA agrees with the threshold criteria noted in the ANPRM; however, as part of the evaluation to determine the adequacy of a state's enforcement of its pipeline damage prevention law, the TRA asserts that a state's record of progress in strengthening its law should be considered. Every effort should be made to allow a state to continue working with stakeholders to improve pipeline damage prevention laws without Federal intervention.

- One-call laws in many states cover many different types of utilities. The proposed rule should distinguish between enforcing one-call laws and pipeline facility damage prevention. It appears that a state may meet the requirements stated in the 2006 PIPES act by enforcing pipeline facility damage prevention (pipeline facility being defined as a natural gas or hazard material pipeline) without exercising the same level of authority over other underground utilities, such as water, sewer, telecommunications and electricity.

- According to information submitted to the Damage Information Reporting Tool, instances of pipeline damage in Tennessee have decreased over the last year. However, it is currently not mandatory to report damages to pipeline facilities, and mandatory reporting should be a part of any effective damage prevention program.

- The TRA agrees with the following statement from Section III, Purpose and Scope of the ANPRM – "PHMSA strongly believes that individual states should retain the primary responsibility to effectively enforce damage prevention laws."

The Tennessee Regulatory Authority is grateful for the opportunity to provide these comments on such an important pipeline safety issue, and respectfully requests that the Pipeline and Hazardous Materials Safety Administration of the U.S. Department of Transportation give these comments careful consideration.

Appendix C

Comments of Director Roberson, Tennessee Regulatory Authority
Presented to the TACIR on September 17, 2009

Director Roberson's Comments

What is underground utility damage and how is it addressed in Tennessee law?

Underground utility damage is the either intentional or unintentional damage to water, sewer, natural gas, telecommunications or electric utility's underground facilities.

Current Tennessee law deals with utility damage prevention in two ways. First, it addresses damage caused by Natural Gas Pipeline operators by the assessment of fines by the TRA of up to $10,000 per violation per day up to $500,000 per incident. Secondly, it provides maximum fines of $2,500 and 48 hours incarceration or both to all other utility owners or third party excavators. This provision is not enforced by the TRA but rather by local police departments. It is the later provision that you are considering today.

Why is this issue important?

There are three basic reasons. 1) Underground damage to utility plant represents the largest cause of unintended disruption of utility services, whose facilities are underground; 2) such damage often amounts to large amounts of unrecovered expenditures by utility companies to repair the damages that are eventually passed on to its customers in the form of higher utility rates; and most important, 3) such damage as seen in states across the union has the real potential of causing death and injuries.

Additionally, the current law is not being consistently enforced, is not uniformly applied to all utilities, makes no provision for public education efforts, and there is no provision to establish a stakeholder group (made up of interested groups) that is charged by the General Assembly to work on these important safety issues.

Finally, as will be explained more fully later, the States are receiving mounting pressure from the Federal government to do something to reduce underground utility damage.

Why is the TRA involved?

The TRA'sjurisdiction, as delegated by the General Assembly, generally can be outlined in three broad categories: 1) to ensure fair and reasonable utility rates, 2) provide adequate level of utility service and 3) promote public utility safety. It is the later issue, public utility safety, which prompts our involvement in this issue. I feel we have a statutory obligation to raise public utility safety issues to the General Assembly when we feel the public interest warrants.

This issue was also seen as important for the General Assembly to address as evidenced by the Comptroller's Sunset Audit findings of the TRA dated 2008. In that audit, the Comptroller found that the future Federal funding of the TRA's Gas Pipeline Safety Program may be affected by the failure to address the Federal government's concern over Tennessee's Underground Utility Prevention Act.

The TRA has a nationally recognized Natural Gas Pipeline Safety Program. The objective of the program is to ensure compliance with Federal and State Gas Safety Codes. Each year Federal Certification is required and a program evaluation is conducted. Our cadre of professional inspectors makes a minimum of 420 inspections per year of natural gas operators' operations and under certain circumstances, conduct investigations of accidents.

It is also important to note that the Federal Government funds between 40%-50% of our Gas Pipeline Safety Program. We have also been successful over the past 2 years to request and receive $150,000 in additional grants from the Federal Government There is also a commitment to fund up to 80% of State program costs if actions are taken to improve its underground utility damage procedures. However, a lack of action may, as noted in the Comptroller's Audit, result in the State not receiving the maximum Federal funds allowable for the program.

We are receiving increasing pressure from the Federal Government to improve our Underground Utility Damage Prevention. In several communications from the Department of Transportation, we are being encouraged to reform our laws according to a list of 9 elements passed by Congress in the "Pipeline Inspection, Protection, Enforcement and Safety Act of 2006" (PIPES Act of 2006). I will briefly discuss some of the 9 Elements later.

Has any State implemented the 9 Elements passed by Congress and how are the reforms working?

Georgia and Virginia have implemented the 9 Elements and delegated to their State's utility commission, such as the TRA, the jurisdiction to implement the statutory reforms.

According to statistics and the testimonies of State Commissioners, the reforms are working in reducing underground utility damage.

We modeled the bill that was introduced on this subject this year after the statutes in Georgia and Virginia and made changes to accommodate concerns raised by interested groups.

What are the essential elements needed in reforming Tennessee's Underground Utility Damage Prevention Statute?

Over the past several years, the TRA and Tennessee One Call have been working to implement those Elements that can be made without statutory changes. It is my belief that the Department of Transportation recognized this when awarding the TRA the grants of $150,000. I will focus here on the major parts of the Elements where statutory changes are required to comply with Federal guidelines.

Element 1 - All underground utility operators be a member of the Tennessee One Call program.

Element 2 - Establish a stakeholder group to assist in the administration of the program.

Element 4 - Institute training programs to educate operators, excavators and other stakeholders about the importance of prevention of underground utility damage.

Element 6 - Establish a dispute resolution process between parties that defines the State authority's role

Element 7 - Establish for the consistent enforcement of sufficient penalties in a fair and transparent process by the appropriate State authority.

We have just learned that the Federal government is planning to issue a Proposed Notice of Rulemaking in December 2009 to address the 9 Elements nationwide where States have failed to act.

Appendix D

Federal Regulations Governing One-call Damage Prevention Programs in States Seeking Basic Pipeline Safety Grants

In allocating the basic pipeline safety grants to state agencies such as the TRA's Gas Pipeline Safety Division, the U.S. Secretary of Transportation considers whether a state has adopted or is seeking to adopt a one-call damage prevention program in accordance with the federal rules. If a state has not adopted or is not seeking to adopt such program, the state agency may not receive the full reimbursement to which it would otherwise be entitled. 49 Code of Federal Regulations § 198.37 requires the following at a minimum:

(a) Each area of the state that contains underground pipeline facilities must be covered by a one-call notification system.

(b) Each one-call notification system must be operated in accordance with §198.39.

(c) Excavators must be required to notify the operational center of the one-call notification system that covers the area of each intended excavation activity and provide the following information:

(1) Name of the person notifying the system.

(2) Name, address and telephone number of the excavator.

(3) Specific location, starting date, and description of the intended excavation activity.

However, an excavator must be allowed to begin an excavation activity in an emergency but, in doing so, required to notify the operational center at the earliest practicable moment.

(d) The state must determine whether telephonic and other communications to the operational center of a one-call notification system under paragraph (c) of this section are to be toll free or not.

(e) Except with respect to interstate transmission facilities as defined in the pipeline safety laws (49 U.S.C. 60101 et seq.), operators of underground pipeline facilities must be required to participate in the one-call notification systems that cover the areas of the State in which those pipeline facilities are located.

(f) Operators of underground pipeline facilities participating in the one-call notification systems must be required to respond in the manner prescribed by §192.614 (b)(4) through (b)(6) of this chapter to notices of intended excavation activity received from the operational center of a one-call notification system.

(g) Persons who operate one-call notification systems or operators of underground pipeline facilities participating or required to participate in the one-call notification systems must be required to notify the public and known excavators in the manner prescribed by §192.614 (b)(1) and (b)(2) of this chapter of the availability and use of one-call notification systems to locate underground pipeline facilities. However, this paragraph does not apply to persons (including operator's master

meters) whose primary activity does not include the production, transportation or marketing of gas or hazardous liquids.

(h) Operators of underground pipeline facilities (other than operators of interstate transmission facilities as defined in the pipeline safety laws (49 U.S.C. 60101 et seq.), and interstate pipelines as defined in §195.2 of this chapter), excavators and persons who operate one-call notification systems who violate the applicable requirements of this subpart must be subject to civil penalties and injunctive relief that are substantially the same as are provided under the pipeline safety laws (49 U.S.C. 60101 et seq.).