

### **Specific Objective(s) of the Agreement**

Under this grant award TRA will perform a detailed evaluation of enforcement programs in place in the States of Georgia and Virginia. The results of the evaluation will be used to determine the optimum revisions to state damage prevention law, and organizational and operational structure of the State of Tennessee Damage Prevention Enforcement Section. This will include a preliminary development of damage prevention enforcement policies and procedures. This project will utilize the State Damage Prevention Program Grant to defray the cost of personnel, travel and office equipment necessary to accomplish the evaluation and development work for the State Damage Prevention Enforcement Section.

### **Workscope**

Under the terms of this agreement, the Grantee will address, the following elements listed in 49 USC §60134 through the actions it has specified in its Application.

- *Element (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.

In addition, the Grantee will layout a four year plan to address 8 of the 9 elements listed in 49 USC §60134 (1, 2, 3, 4, 6, 7, 8, and 9).

### **Accomplishments for this period (Item 1 under Agreement Section 9.01 Progress Report: “A comparison of actual accomplishments to the objectives established for the period.”)**

Initially based on the November 28, 2008 submittal date for the Section 9.01 Progress Report, it was anticipated that the following objectives could be met:

- Completion of an evaluation of the existing Tennessee Underground Utility Damage Prevention Act (TUUDPA) relative to how effectively it addresses pertinent elements listed in the 2006 PIPES Act and how it can be amended to improve the overall damage prevention program (Attachment 1).
- Completion of an issues matrix evaluating the Georgia, Virginia, Illinois and Minnesota underground utility damage prevention laws relative to similarities and which parts of the laws best fit a revised TUUDPA (Attachment 2).
- Completion of a comparison of the underground damage prevention programs of Georgia, Illinois, Minnesota, Virginia and Tennessee (Attachment 3).
- Prepare a draft of amendments to the TUUDPA for legal review (Attachment 4).
- Prepare a preliminary model of the Tennessee Damage Prevention Program Enforcement Section (Attachment 5)
- Project personnel needs for enforcement section (Attachment 6).

**Quantifiable Metrics/Measures of Effectiveness (Item 2 under Agreement Section 9.01 Project Report: (Where the output of the project can be quantified, a computation of the cost per output.”))**

Under the present TUUDPA there is virtually no enforcement activity. Before improvement can be realized in enforcement the current act must be amended. The purpose of this initiative is to lay the foundation for fair and consistent enforcement of the damage prevention law. What is being accomplished relative to improving the damage prevention program at this stage is somewhat similar to the construction of a natural gas main extension, quantifiable benefits from our present effort or a pipeline will not be realized until all parts are in place and functional. There are no quantifiable metrics at this stage of our improvement program. However, the nature of the legislative process will undoubtedly result in additional exposure for the topic of underground utility damage prevention.

**Issues, Problems or Challenges (Item 3 under Agreement Section 9.01 Project Report: “The reasons for slippage if established objectives were not met.”)**

We have met the initially established objectives relative to our main goal of evaluating and amending the existing damage prevention act to include fair and consistent enforcement of the law. The next challenge will be to build support for passing the amendments to the TUUDPA.

**Other pertinent information, including, when appropriate, actions taken to address the recommendations PHMSA provided in correspondence dated April 4, 2008 (Item 4 under Agreement Section 9.01).**

A copy of our responses to recommendations included in the April 4, 2008 correspondence accompanies this status report. Since the responses provided on April 11, 2008, additional action has been taken relative to some of the recommendations as follows:

**3b. Recommendations:**

2. Draft amendments to the current TUUDPA delete the criminal provision of 48 hours in jail and include penalties in line with federal requirements.

**Plans for next period (remainder of grant)**

Plans for the remainder of the grant include the following:

- Introduce legislation and build support of stakeholders.
- Finalize the model damage prevention enforcement section in the form of policies and procedures.
- Finalize the rules and regulations for a damage prevention enforcement section.
- Draft tiered civil penalty schedule.

**Requests of the AOTR and/or PHMSA**

No actions requested at this time.

## Attachment 1

The State of Tennessee's present damage prevention law (Tennessee Code Annotated Title 65, Chapter 31, Sections 101-113) is rarely enforced and, therefore, does not serve as a deterrent in the effort to prevent underground utility damage. Characteristics of enforcement activities in the State of Tennessee under the current damage prevention law are as follows:

- No policy making body to develop a fair and consistent enforcement program.
- Authority to enforce the damage prevention law is vested in local and state law enforcement personnel.
- Relative to other issues in today's society, enforcement of damage prevention requirements appears to be a very low priority for law enforcement personnel.
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Enforcement activities are practically nonexistent. Following is the current Tennessee Underground Utility Damage Prevention Act

### **65-31-101. Short title. —**

This chapter may be cited as the "Underground Utility Damage Prevention Act."

[Acts 1978, ch. 692, § 1; T.C.A., § 65-3201.]

### **65-31-102. Chapter definitions. —**

As used in this chapter, unless the context otherwise requires:

(1) "Calendar day" means a twenty-four (24) hour period beginning with the date and time that a notification to excavate or demolish is to begin, including Monday through Sunday and all holidays;

(2) “Damage” includes the substantial weakening of structural or lateral support of an underground utility, penetration or destruction of any protective coating, housing or other protective device of an underground utility, the partial or complete severance of an underground utility and rendering any underground utility inaccessible;

(3) “Demolish” or “demolition” means any operation by which a structure or mass of material is wrecked, razed, rendered, moved or removed by means of any tools, equipment, or discharge of explosives;

(4) “Excavate” or “excavation” means an operation for the purpose of the movement, placement, or removal of earth, rock, or other materials in or on the ground by use of mechanized equipment or by discharge of explosives, and including augering, backfilling, digging, ditching, drilling, grading, plowing-in, pulling-in, ripping, scraping, trenching and tunneling, but not including the tilling of soil for agricultural purposes; or the digging of holes for fence posts on private property in any area that is not located within a recorded easement of an operator or that is not located within one hundred feet (100’) of the edge of the pavement of a street or highway. “Agricultural purposes” includes surface activities, such as plowing, planting and combining, but does not include blasting, setting drainage tiles, subsoiling or other sub-surface activities;

(5) “Impending emergency” means circumstances potentially dangerous to life, health, property, the environment or the repair or restoration of service, which would likely develop into an emergency, as defined in § [65-31-109](#), if excavation is not initiated within seventy-two (72) hours;

(6) “Location” means the proposed area for which digging or excavating is scheduled within three (3) to ten (10) working days, such area not to exceed two thousand feet (2,000’) in length unless an excavator and an operator or an operator's designated representative, such as a one-call service, agree to a larger area;

(7) “Mechanized equipment” means equipment operated by means of mechanical power including trenchers, bulldozers, power shovels, augers, backhoes, scrapers, drills, cable and pipe plows and other equipment used for plowing-in or pulling-in cable or pipe;

(8) “One-Call Service” means a telephone notification service described in § [65-31-107](#) that provides services to its members for the purposes of receiving and distributing notification regarding planned excavations or demolitions that are required under this chapter;

(9) “Operator” means any person who owns or operates a utility;

(10) “Person” means any individual; any corporation, partnership, association, or any other entity organized under the laws of any state; any state; any subdivision or instrumentality of a state; and any employee, agent, or legal representative thereof;

(11) “Proposed area of excavation” means a general surface location which excavators are to furnish to operators of underground utilities or to a one-call service as defined in § [65-31-106](#). The proposed area of excavation does not constitute a specified depth for the purpose of complying with the provisions of this chapter;

(12) “Utility” means any line, system or facility used for producing, storing, conveying, transmitting, or distributing communications, electricity, gas, petroleum, petroleum products, hazardous liquids, water, steam, sewerage and other underground facilities; and

(13) “Working day” means every day, except Saturday, Sunday, and national and legal state holidays. For purposes of measuring any period of time that requires notice under this chapter, a working day shall commence at the time the written notice or telephone call is received and shall expire at the same time on the next working day.

[Acts 1978, ch. 692, § 2; T.C.A., § 65-3202; Acts 1993, ch. 223, §§ 1-3; 1999, ch. 73, § 1; 2006, ch. 686, § 9; 2007, ch. 218, § 1.]

**65-31-103. Permits do not relieve liability. —**

A permit issued pursuant to law authorizing excavation or demolition operations shall not be deemed to relieve a person from the responsibility for complying with the provisions of this chapter.

[Acts 1978, ch. 692, § 3; T.C.A., § 65-3203.]

**65-31-104. Excavations without ascertainment of underground utilities prohibited.**

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(a) Except as provided in § [65-31-109](#), no person may excavate in a street, highway, public space, a private easement of an operator or within one hundred feet (100') of the edge of the pavement of a street or highway, or demolish a building, without giving the notice required by § [65-31-106](#) in the manner prescribed by such section.

(b) A general DIG certificate shall be issued for agricultural land as defined in § [67-5-1004](#) that lies outside a street, highway, public space or a private easement of an operator but within one hundred feet (100') of the edge of the pavement of a street or highway when no utilities are located within that area. The general certificate shall be valid until title to the land is transferred or until a utility line is located within the area.

[Acts 1978, ch. 692, § 4; T.C.A., § 65-3204; Acts 1993, ch. 223, § 4; 2007, ch. 218, §§ 2, 3, 5.]

**65-31-105. Filing requirements for utility operators. —**

(a) Each operator, except operators participating in a one-call service, having underground facilities in a county, including those facilities that have been abandoned in place by the operator but not yet physically removed, shall file a notice with the register of deeds of the county that states that the operator has underground utilities located in that county, the name of the operator and the name, title, address, telephone number and

that the operator list the exact physical location of each and every item of its underground facilities in such counties.

(b) Changes in any of the information contained in the list filed under subsection (a) shall be filed by the operator with the register of deeds of the county, or the register of deeds of each county in which these utilities are located, within thirty (30) working days of the change.

(c) A filing fee as determined by the register of deeds may accompany the filing. These filings shall be filed and an index shall be maintained and kept up to date by the register's office.

(d) The register of deeds shall, within one (1) working day, furnish to the party requesting such information, in writing when requested, a list of all operators having filed notices pursuant to subsection (a) and all other information regarding each such operator that has been filed with the register of deeds in accordance with subsection (a). When submitted in writing by the register of deeds, the information shall also include the name of the requesting party, and the date and time the register of deeds received the request from the requesting party.

(e) After March 27, 1978, operators shall maintain records and drawings of all changes and additions to its underground facilities.

[Acts 1978, ch. 692, § 5; T.C.A., § 65-3205; Acts 1993, ch. 223, §§ 5-7; 2006, ch. 686, § 1.]

**65-31-106. Notice of intent to excavate or demolish. —**

(a) Except as provided in § [65-31-109](#), before beginning any excavation or demolition operation described in § [65-31-104](#), other than an impending emergency as defined in § [65-31-102](#), each person responsible for such excavation or demolition shall serve written, telephonic or e-mail notice of intent to excavate or demolish at least three (3)

designated representative. Should a period of time of fifteen (15) calendar days from the actual date specified to start excavation or demolition expire without the excavation or demolition being completed, then the person responsible for such excavation or demolition shall serve an additional written, telephonic or e-mail notice of intent to excavate or demolish at least three (3) working days prior to the expiration of time on the fifteenth calendar day.

(1) If the proposed area of excavation or demolition is not served by the one-call service as provided in § [65-31-107](#), then the notice required by subsection (a) shall be served on each operator which has filed a list required by § [65-31-105](#) indicating that it has underground utilities located in the county where the excavation or demolition is to occur; or

(2) If the proposed area of excavation or demolition is served by the one-call service, as provided for in § [65-31-107](#), the notice required by subsection (a) shall be served on such one-call service; provided, that where demolition of a building is proposed, each affected operator shall be given reasonable time to remove or protect its utilities before demolition of the building begins.

(b) The written, telephonic or e-mail notice required by subsection (a) shall contain the name, address, telephone number and e-mail address of the person filing the notice of intent and, if different, the person responsible for the excavation or demolition, the starting date, the anticipated duration of the excavation or demolition, the type of excavation or demolition operation to be conducted, the specific location of the proposed excavation or demolition, and whether or not explosives are anticipated to be used. The location of the proposed area of excavation or demolition shall be designated by the person responsible for the excavation or demolition by marking such area with “safety white” color-coded stakes or white paint, unless:

(1) The operator or its agent can determine the precise location of the proposed area of excavation based solely on the street address from a one-call service locate ticket because of the size of the property;

(2) The operator or its agent can determine the precise location of the proposed area of excavation from a one-call service locate ticket that references a driveway or other easily identifiable point on the property and that identifies the property by street address or block and lot number;

(3) The operator or its agent can determine the precise location of the proposed area of excavation from a one-call service locate ticket that identifies the property as being located on a street or road between two designed intersections of the street or road and two cross streets or roads when a street address or block and lot number is unavailable or does not apply; or

(4) The person responsible for the excavation or demolition and all operators with underground facilities in the proposed area of excavation have had a meeting prior to the beginning of the excavation or demolition for the exchange of information on the location of the proposed excavation or demolition.

(c) If the notification required by this section is made by telephone or e-mail, an adequate record of such notification shall be maintained by each notified operator or one-call service to document compliance with the requirements of this chapter, and a copy of this record shall be furnished by any operator or one-call service to the person giving notice of intent to excavate or demolish, when so requested by that person.

(d) Except as provided in § [65-31-109](#), before beginning any excavation or demolition within one hundred feet (100') of the edge of the pavement of a street or highway when that area lies outside a street, highway, public space or a private easement of an operator, an excavator shall serve notice of the excavation or demolition at least three (3) working days before the actual date of excavation or demolition as set forth in this section. If after receiving proper notification as required in this section, an operator fails to locate its facilities within three (3) working days in the manner required by § [65-31-108](#), the excavator shall be authorized to proceed with the excavation. If an operator fails to locate its facilities within three (3) working days in the manner required by § [65-31-108](#) after receiving proper notification as required by this section and an underground facility of the operator is damaged by an excavator as a result of the operator's failure to discharge such duty, then the excavator shall not be liable for the damage; provided, that, if the excavator observes clear evidence of the presence of an unmarked utility in the area of the proposed excavation, the excavator shall exercise reasonable care to avoid damage to the utility that may be caused by the excavation, and the excavator shall be liable for damages arising from its failure to use reasonable care in such circumstances.

[Acts 1978, ch. 692, § 6; T.C.A., § 65-3206; Acts 1993, ch. 223, §§ 8-12; 1999, ch. 73, § 2; 2006, ch. 686, §§ 2-5; 2007, ch. 218, §§ 4, 6.]

**65-31-107. Operator associations for mutual receipt of notifications. —**

(a) Operators may form and operate a one-call service providing for mutual receipt of notifications of excavation or demolition operations, pursuant to § [65-31-106](#), in a defined geographical area. Any operator that suffers damage as a result of not participating in a one-call service providing for receipt of the notification of excavation or demolition operations in a defined geographic area, pursuant to § [65-31-106](#), waives the right to recover damages to the operator's underground utilities from the excavator; provided, that the provisions of this chapter were met by the excavator.

(b) (1) Natural gas distribution systems are required to belong to a one-call service formed in a geographical area in which such gas distribution systems operate.

(2) Only one (1) one-call service shall be formed and operated within a defined geographical area.

[Acts 1978, ch. 692, § 7; T.C.A., § 65-3207; Acts 1993, ch. 223, § 13; 1996, ch. 855, §§ 1-3; 1999, ch. 73, § 3; 2006, ch. 686, § 6.]

**65-31-108. Response to notice of intent to excavate or demolish. —**

(a) (1) Each operator notified in accordance with § [65-31-106](#) shall stake or otherwise mark, prior to the noticed time of the proposed excavation or demolition, the surface of the tract or parcel of land affected by the excavation or demolition to indicate the approximate location of all its underground utilities that may be damaged as a result of the excavation or demolition. The operator shall not be required to indicate the depth of any such utility, but only the approximate ground location under which the utility is located. Such staking or other marking shall utilize the following color code:

(A) SAFETY RED shall be used to mark electric power distribution and transmission facilities;

**(B)** HIGH VISIBILITY SAFETY YELLOW shall be used to mark gas and oil distribution and transmission facilities;

**(C)** SAFETY ALERT ORANGE shall be used to mark telephone, telegraph, cable television, video, and other telecommunications facilities;

**(D)** SAFETY PRECAUTION BLUE shall be used to mark water systems facilities;

**(E)** SAFETY GREEN shall be used to mark sewer systems facilities; and

**(F)** SAFETY PURPLE shall be used to mark reclaimed water.

**(2)** In the event more than one (1) operator uses the same color code under subdivision (a)(1), each operator using the same color shall include a distinctive marking, such as the initials of the operator's name or other marking, that appropriately identifies each operator and sufficiently distinguishes each operator's marking from any other operator authorized to use the same color under subdivision (a)(1).

**(b)** Each operator participating in a one-call service that has been notified in accordance with § [65-31-106](#) shall notify the one-call service that the operator has marked the approximate location of all of its underground utilities as required by this section or that the operator has no underground utilities in the proposed area of excavation. The operator shall provide this notice to the one-call service in accordance with procedures adopted by the one-call service for this notification. This notice shall fulfill the operator's obligation set forth in subsection (e). When each operator notified in accordance with § [65-31-106](#) has notified the one-call service that its underground utilities in the proposed area of excavation have been marked or that the operator has no underground utilities in the proposed area of excavation, the person responsible for the excavation or demolition may immediately proceed with the excavation or demolition, notwithstanding the minimum three-working-day notice requirement before excavation or demolition can begin set forth in § [65-31-106\(a\)](#).

(c) An excavator shall exercise reasonable care to avoid damage caused by an excavation or demolition within the safety zone around the marked location of the underground utilities. For the purpose of this section, “safety zone” means a strip of land at least four feet (4’) wide, but not wider than the width of the utility plus two feet (2’) on either side of the utility.

(d) If, upon arrival at the site of a proposed excavation, the excavator observes clear evidence of the presence of an unmarked utility in the area of the proposed excavation, the excavator shall not begin excavating until an additional notice is made to the one-call. The excavator may then proceed, exercising reasonable care to avoid damage to the utility which may be caused by such excavation or demolition.

(e) If no facilities exist in the tract or parcel of land, the operators shall make a reasonable effort to so advise the individual who initiated the request, provided the request is received in accordance with § [65-31-106](#).

(f) The approximate location of underground utilities does not include a designation of location as to depth below the surface of the ground. Excavators must use reasonable care to ascertain for themselves the exact depth of the underground utilities below the surface of the ground. If, after so ascertaining, the excavator learns that its excavation or demolition is likely to interfere with the operation of the underground utility facilities, it must again notify the affected operator of such underground utility facilities and reasonably cooperate with the operator of the underground utility facilities to conduct its excavation or demolition in such a way that the operations of the underground utility facilities are not disturbed or the affected underground utility facilities are placed out of the way of the proposed excavation or demolition.

(g) Each operator notified in accordance with § [65-31-109](#), shall within two (2) hours stake or otherwise mark, utilizing the color code set forth in subsection (a), the surface of the tract or parcel of land affected by the excavation or demolition to indicate the approximate location of all its underground utilities that may be damaged as a result of the excavation or demolition.

(h) Each operator notified of an impending emergency, as defined in § [65-31-102](#), shall

demolition, utilizing the color code set forth in subsection (a), the surface of the tract or parcel of land affected by the excavation or demolition to indicate the approximate location of all its underground utilities that may be damaged as a result of the excavation or demolition.

[Acts 1978, ch. 692, § 8; T.C.A., § 65-3208; Acts 1993, ch. 223, § 14; 1999, ch. 73, § 4; 2006, ch. 686, §§ 7, 8.]

**65-31-109. Emergency excavation or demolition. —**

(a) Compliance with the notice requirements of § [65-31-106](#) is not required of any person responsible for emergency excavation or demolition, for repair or restoration of service or to ameliorate an imminent danger to life, health, or property; provided, that such person gives, as soon as practicable, oral notice of the emergency excavation or demolition to each operator having underground utilities located in the area or to a one-call service provided for in § [65-31-107](#), that serves an operator, where such excavation or demolition is to be performed and requests emergency assistance from each operator so identified in locating and providing immediate protection to the operator's underground utilities. “Emergency” means 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.

(b) Any excavator providing a misrepresentation of an emergency excavation as stated in subsection (a), or an “impending emergency,” as defined in § [65-31-102](#), shall be subject to the penalties stated in § [65-31-112](#).

[Acts 1978, ch. 692, § 9; T.C.A., § 65-3209; Acts 1993, ch. 223, § 15; 1999, ch. 73, § 5.]

**65-31-110. Precautions to avoid damage. —**

In addition to the notification requirements of § [65-31-106](#), each person responsible for any excavation or demolition operation designated in § [65-31-104](#) shall:

(1) Plan the excavation or demolition to avoid damage to and minimize interference with underground utilities in and near the construction area;

(2) Maintain a clearance between an underground utility and the cutting edge or point of any mechanized equipment in accordance with § [65-31-108](#)(b) and (d), taking into account the known limit of control of such cutting edge or point, as may be reasonably necessary to avoid damage to such utility;

(3) Provide such support and protection for underground utilities in and near the construction area, including during backfill operations, as may be reasonably necessary for the protection of such utilities; and

(4) Each utility, regardless of the use or material, shall be installed with sufficient clearance to permit the maintenance of existing utilities, and to protect against damage to existing utilities.

[Acts 1978, ch. 692, § 10; T.C.A., § 65-3210; Acts 1993, ch. 223, §§ 16-18; 2001, ch. 120, §§ 1, 2.]

**65-31-111. Notice of excavation or demolition damage. —**

(a) Except as provided by subsection (b), each person responsible for any excavation or demolition operation described in § [65-31-104](#) that results in any damage to an underground utility shall, immediately upon discovery of such damage, notify the operator of such utility of the location and nature of the damage and shall allow the operator reasonable time to accomplish necessary repairs before completing the excavation or demolition in the immediate area of such utility.

(b) Each person responsible for any excavation or demolition operation described in § [65-31-104](#) that results in damage to an underground utility, permitting the escape of any

damage, notify the operator, police and fire departments, and take any other action as may be reasonably necessary to protect persons and property and to minimize the hazards until arrival of the operator's personnel or police and fire departments.

(c) During initial excavation, if an underground utility is found to be unsound due to deterioration, the person responsible for excavation shall immediately notify the utility company involved and shall allow the operator reasonable time to accomplish necessary repairs before completing the excavation or demolition in the immediate area of such utility.

(d) The financial impact of all damages to underground utilities shall be calculated using generally accepted accounting principles (GAAP).

[Acts 1978, ch. 692, § 11; T.C.A., § 65-3211; Acts 1993, ch. 223, § 19; 2006, ch. 686, § 10.]

**65-31-112. Criminal penalties and remedies. —**

(a) Any person who violates any provision of this chapter commits a Class A misdemeanor, and is subject to a fine not to exceed two thousand five hundred dollars (\$2,500) or a term of imprisonment not to exceed forty-eight (48) hours, or both.

(b) (1) Any excavator who violates the provisions of this chapter may be issued a citation by any local or state law enforcement officer or permitting agency inspector, and the issuer of a citation may require any excavator to cease work on any excavation or not start a proposed excavation until there has been compliance with the provisions of this chapter.

(2) If, after receiving proper notification as required in § [65-31-106](#), an operator fails

operator is damaged by an excavator who has complied with the provisions of this chapter; and such damage is a proximate result of the operator's failure to discharge such duty, then such excavator shall not be liable for such damage.

(c) (1) Any person who violates any provision of this chapter may be required to appear before the appropriate court as set forth in § [40-1-107](#). Any person who fails to appear or otherwise properly respond to a citation issued pursuant to this section shall, in addition to the penalties as set forth in the citation, be charged with a misdemeanor offense and, upon conviction, commits a Class B misdemeanor, punishable as provided in § [40-35-111](#).

(2) Any person cited for a violation of this chapter, unless required to appear before the appropriate court may:

(A) Post a bond, which shall be equal in the amount to the applicable penalty; or

(B) Sign and accept a citation promising to appear before the appropriate court.

(3) The issuing officer shall indicate on the citation the time and location of the scheduled hearing and shall indicate the applicable penalty.

(4) Any person charged with a violation of this chapter, unless required to appear before the appropriate court, may:

(A) Pay the penalty, in lieu of appearance, either by mail or in person, within ten (10) days after the date of receiving the citation; or

(B) Forfeit the bond, if a bond is posted, by not appearing at the designated time and location.

(5) If the person cited follows either of the procedures of subdivisions (c)(4)(A) or (B), such person shall be deemed to have admitted to committing the infraction and to have waived the right to a hearing on the issue of commission of the infraction. Such admission may be used as evidence in any other proceeding.

(d) Any person who knowingly and willfully removes or otherwise destroys the stakes or other physical markings used to mark the horizontal route of an underground facility commits the offense of vandalism as set forth in § [39-14-408](#), and shall be subject to the punishment for vandalism as set forth in § [39-14-105](#).

[Acts 1978, ch. 692, § 12; T.C.A., § 65-3212; Acts 1985, ch. 69, § 1; 1999, ch. 73, § 6; 2006, ch. 686, § 11.]

**65-31-113. Severability. —**

If any provisions of this chapter or the applicability thereof to any person or circumstance is held invalid, the remainder of the chapter and the application of such provision to other persons or circumstances shall not be affected thereby.

[Acts 1993, ch. 223, § 20.]



	GA	IL	VA	MN	TN
One-Call	All owners shall participate. No other 1-Call Center can be established. Activities funded by owners/operators.	Operators must join 1-Call w/I 6 months of Act effective.	All operators, including local gvmts, but excluding DOT must join. Responsible for developing/implementing public awareness programs. Provides excavators w/identities of operators to be notified. Notify all operators w/line in excavation area.	Center must be governed by a board of directors of up to 20 members, 1 being the director of the pipeline safety office. Other board members must represent and be elected by operators, excavators, etc.	
Funding	Penalties go to general fund	Create special fund under state treasury. All penalties go to fund. Funds distributed annually as grant to 1 Call for safety/info programs.	Revolving fund. Monies generated by enforcement only. Excess funds will support public awareness, training/education, incentives, ect. All penalties will be deposited in the special fund, est. w/Comptroller office. Any remaining funds at the end of the fiscal year will not revert to the general fund.	Operators shall participate and share cost of notification center. Penalty collected: deposited in state treasury to pipeline safety account. Penalties are annually appropriated to the commissioner of public safety.	
Advisory Committee	Propose rules/processes to PSC. Governor appoints Committee. Chair only votes in tie. Recommend tiered penalty structure for local gvmts.	PSC established Committee-peer review panel for contested penalties.	Commission est. advisory committee. Advisory Committee shall perform duties which may be assigned by the Commission, including reviewing reports of violations of the chapter, and making recommendations to the Commission.		

GA

IL

VA

MN

TN

Penalty

Excavator not responsible if provided incorrect information. Violator liable for: damages, injury, service interruption. Local gvmt must bond excavators working in right of way. Suspend/revoke professional, certificates, etc. PSC-enforcement rules. Disputes re: settlements go to Adv. Committee. Penalty not to exceed \$10 K each

Resident failing to comply shall not be penalized, but liable for damage. Failure to comply: Prima facie guilty of negligence. Failure to comply: up to \$5,000 each and liable for damage, provides notice but willfully fails to comply: up to \$2,500 each and liable; provide notice, acting reasonably but damages facility: no penalty, but liable; provides notice of emergency locate and request is not an emergency: up to \$2,500 each. Operators failing to comply w/markings or notice or response: up to \$5,000 each. Operators failing to join 1 Call: \$100 daily. Any person who removes/damages markings: up to \$1,000 each. PSC may impose administrative penalties, promulgate rules/policies/enforce. Criteria for magnitude of penalty.

Excavator willfully failing to notify-liable for 3 times cost of damage, not exceeding \$10,000 each. Liable for damage if failure to: comply, notify, discharge duty. Operator failure to comply causes damage, liable for damage. Commission may impose a civil penalty not to exceed \$2,500 each

Excavator knowingly damages facility, does not notify operator a.s.a.p., or backfills is guilty of misdemeanor. Excavator damaging lines reimburses operator for repair cost, for pipelines, reimburse the cost of product carried and lost as a result of damage.No reimbursement if damage result of operator negligence/failure to comply. Failure to notify-prima facie guilty.Commissioner may impose civil penalty to violator not to exceed \$1,000 each violation per day. If fine exceeds maximum limit for conciliation court, appellant may request commissioner to conduct admin. hearing. Commissioner may negotiate a compromised settlement and consider the penalty based on size of company, gravity, good faith. Commissioner shall adopt rules est. guidelines for imposing penalties.

If operator's facilities are damaged as a result of failure to mark, excavator is not liable for damage. Any operator suffering damage resulting from not participating in 1 Call waives the right to recover damages, provided the excavator adheres to the Act. Excavator providing a misrepresentation of an emergency excavation or impending emergency may be subject to penalties.Person responsible for damage to facility shall immediately upon discovery of damage notify the operator and allow the operator reasonable time to accomplish necessary repairs before completing excavation. Violators of Act guilty of Class A misdemeanor and subject to a fine not to exceed \$2,500 and/or imprisonment of no more than 48 hrs.Excavator not liable for damage if operator fails to mark after notification. Failure to appear or failure to respond to citation is a Class B misdemeanor.Removing/destroy markings guilty of vandalism.

## State Comparison: Underground Damage Prevention Programs – Attachment 3

### Georgia

- Owner/operator shall respond to notification within 10 business days.
- All facility owners shall participate with utility protection center.
- No other utility protection centers (UPC) can be established.
- Activities of UPC funded by owners/operators.
- 48 hours notice for blasting/excavating.
- 21 day expiration date on notice of blasting, 2<sup>nd</sup> notice if over 21 days.
- Emergency notices expire at 7 AM, 3 business days after notification.
- Advisory committee proposes rules/ processes to PSC.
- Marked location must be accurate to within 24 inches.
- Excavator not liable for damage if provided incorrect location.
- Violator liable for: damage cost, injury, service interruption.
- Local government must bond excavators working in right of way.
- Can suspend or revoke professional license, certificate, etc.
- Commission-enforcement rules.
- Governor appoints advisory committee.
- Advisor chair only votes in tie.
- Specific instances for civil penalties on local government.
- Advisory committee to recommend tiered penalty structure for local government.
- Disputes regarding settlements go to advisory committee.
- Penalty can not exceed \$10 K each.
- Penalties go to general fund.

### Illinois Underground Utility Facilities Damage Prevention Act

- Operators must join 1-Call within 6 months of Act becoming effective.
- At least 48 hours notice but no more than 14 days before digging.
- If project extends past 28 days from notice, another notice is required.
- DOT notifies owner/operator of preconstruction conference.
- Emergency notification: wait time 2 hrs or date/time requested on notice, whichever is longer.
- Owner/operator shall communicate w/emergency excavator w/i 2 hrs or date/time requested, whichever is longer.
- Notice can be given by phone, phone message, or marking excavation area.
- Person responsible for damage must immediately notify affected utility and 1-Call.
- Resident failing to comply shall not be penalized, but liable for damage.
- Evidence of failure to comply: prima facie guilty of negligence.
- Upon notice owners/operators shall mark utilities w/i 48 hrs.
- If owner/operator does not own/operate utilities identified in notice, they shall notify excavator w/i 48 hrs of receipt of notice.
- Penalty structure:
  - failure to comply: up to \$5,000 each offense and liable for damages

### State Comparison: Underground Damage Prevention Programs – Attachment 3

- provides notice but willfully fails to comply: up to \$2,500 each and liable
- provides notice, acts reasonable but damages facility: no penalty, liable
- provides notice of emergency locate and request is not an emergency: up to \$2,500 each
- owners/operators fail to comply with marking or fail to provide notice that facilities are not w/i excavation or fail to respond: up to \$5,00 each
- owners/operators failing to join 1-Call Center: \$100 day
- owners/operators not penalized for delay in marking or failure to mark b/c of conditions beyond reasonable control
- any person alters/removes/damages marking: up to \$1,000 each
- If excavator finds clear evidence of unmarked utility, excavator may not begin digging until 2 hrs after additional call to Center—operator shall respond w/i 2 hrs.
- Ill. Commerce Commission may impose administrative penalties, promulgate rules/policies, enforce.
- Criteria for magnitude of penalty (pg. 23).
- Create special fund under state treasury-all penalties go to fund.
- Funds distributed annually as grant to 1-Call Center for safety/info. programs.
- Ill. Commerce Commission to establish Advisory Committee-peer review panel for contested penalties.
- Person whose damage causes emergency phone system outage must reimburse the public safety agency that provides personnel to answer calls during outage.
- Owner/operator/excavator may act in city/circuit county court to stop negligent/unsafe excavation.
- All units of local government, including home rule must comply.

#### Virginia

- Every operator, including counties, cities, towns, but excluding DOT shall join notification center.
- Members of notification center are responsible for developing/implementing public awareness programs.
- Notification center will provide the excavator w/identity of utilities that will be notified.
- An excavator who willfully fails to notify shall be liable to the operator whose facilities are damaged for three times the cost to repair the damage, not exceeding \$10,000 each.
- Excavator may commence work (except in emergency):
  - after waiting 48 hrs, beginning at 7 AM day following notice
  - any time after excavator confirms all operators have marked or reported no lines
  - informed by notification center that no operators will be notified
- If excavator observes clear evidence of the presence of unmarked utility, must not begin until 3 hrs after additional call to center. Operator shall respond w/i 3 hrs.
- Excavator notification valid for 15 working days beginning 7 AM workday following notification.
- Illegible marking: excavator notifies center, marked w/i 48 hrs.
- If specific location can not be given, excavator will mark area.

## State Comparison: Underground Damage Prevention Programs – Attachment 3

- Proposed work shall be completed w/i 15 work days, area can not exceed 1 mile.
- Excavator may request a special project notice from notification center to enter into agreement w/operator for protecting utilities during specific, unique, or long-term projects.
- Project owners shall provide copies of drawings to operators.
- Project designers provided notification.
- If excavation is planned in proximity that may cause damage, operator will mark approx. horizontal location w/i 2 feet of either side of utility line.
- Operator must participate in preplanning/preconstruction meetings by state, local authorities.
- Contractors for operators are subject to liabilities and civil penalties.
- Locators shall be trained in industry standards.
- Commission shall be authorized to adopt regulation designating letters/symbols for marking.
- Operator responsibilities for abandoned lines: reasonable attempt to keep records of lines, provide information if knowledge of lines in excavation area.
- Operator shall respond to an emergency notice as soon as possible, but no later than 3 hrs from excavator's call to notification center.
- Plastic or nonmetallic lines shall be installed in such a manner as to be locatable.
- Notification center shall: notify all member operators whose lines are in proposed excavation site, and provide operator names to excavator.
- If damage to facility, responsible party shall immediately notify operator and can not backfill around the line until operator has repaired.
- Liable for damage if: failure to comply, failure to notify, operator failure to discharge duty.
- If operator failure to comply causes damage to equipment of compliant excavator, the operator is responsible for damage.
- Commission shall: enforce the provisions of Damage Prevention Act, establish advisory committee.
- Advisory committee shall perform duties which may be assigned by the Commission, including reviewing reports of violations of the chapter, and making recommendations to the Commission.
- Commission may impose a civil penalty not exceeding \$2,500 each violation.
- Underground Utility Damage Prevention Special Fund: revolving fund for administering the regulatory program. Monies in fund generated by enforcement only. Excess funds will support public awareness, training/education and incentives for excavators, operators, etc. All civil penalties collected will be deposited in the special fund, established with the Comptroller office. Any remaining funds at the end of the fiscal year will not revert to the general fund.

### Minnesota

- Local government units issuing permits for excavation must display an excavator's and operator's notice at the location where permits are applied/obtained.

### State Comparison: Underground Damage Prevention Programs – Attachment 3

- The Center shall furnish to local governmental units: copy of notice/sections, copy of display and distribution requirements, and phone number/address of notification center.
- Operators shall participate and share cost of notification center.
- Center must be governed by a board of directors of up to 20 members, 1 being the director of the pipeline safety office. Other board members must represent and be elected by operators, excavators, etc.
- Commissioner shall adopt rules: est. notification process and competitive bidding for vendor of notification service; govern operating procedures/technology for Center, est. methods for assessing cost of the service among operators.
- Cooperation w/local governments to maximize participation from permit issuing body to ensure excavator receives notice and complies.
- Excavator/land surveyor shall: contact the Center 48 hrs, but no more than 14 calendar days before digging.
- Before entering into a contract for excavation: notify Center, operators provide info w/i 15 working days. Information must be updated not more than 90 days before completion of final drawing used for bid/contract.
- A person required to show existing facilities on drawings shall conduct 1 or more preliminary design meetings to coordinate utility relocation. Affected operators shall attend or provide info.
- Notification center shall assign an inquiry ID number to each notice and retain records for 6 years.
- Center shall immediately transmit notice info to ever affected operator in proposed site.
- Operator shall locate/mark site prior to excavation w/i 96 hrs or time on notice.
- If operator can't complete marking before time stated on notice, must contact the excavator/boundary surveyor promptly.
- Operators maintain maps, drawings, diagrams of abandoned/out-of-service lines after 21-31-1998.
- If excavation/survey is canceled, contact Call center to cancel notice.
- Notices valid 14 calendar days from start time on notice. If continues longer, additional notice at least 48 hrs before expiration.
- If excavator makes arrangements with operators to periodically verify/refresh marks, notice good for 6 months.
- Excavator shall notify operator promptly if damage, operator shall promptly dispatch repair. Excavator delay backfilling until repaired/cleared.
- Excavator knowingly damages facility, does not notify operator a.s.a.p., or backfills is guilty of a misdemeanor.
- Excavator damaging lines reimburses operator for repair cost, for pipelines, reimburse the cost of the product carried and lost as a result of damage.
- No reimbursement if damage result of operator negligence/failure to comply.
- Failure to notify-prima facie guilty.
- Commissioner may impose civil penalty to violator not to exceed \$1,000 each violation per day.
- Operator violation: subject to civil penalty under 299F.60. (need to look up).
- District court can hear w/o sitting jury. If fine exceeds maximum limit for conciliation court, appellant may request commissioner to conduct admin. hearing.

### State Comparison: Underground Damage Prevention Programs – Attachment 3

- Commissioner may negotiate a compromised settlement and consider the penalty based on size of company, gravity, good faith.
- Penalty collected: deposited in state treasury to pipeline safety account, Penalties are annually appropriated to the commissioner of public safety.
- Commissioner shall adopt rules est. guidelines for imposing penalties.

#### Tennessee

- Notice of intent to excavate at least 3, but no more than 10 working days prior to dig.
- If 15 calendar passes w/o beginning excavation, additional notice is required 3 days prior to 15 calendar day.
- 1-Call participants shall have reasonable time to remove/protect utilities before dig.
- If after notification, an operator fails to locate facilities w/i 3 working days, excavator shall proceed with dig.
- If operator's facilities are damaged as a result of failure to mark, excavator is not liable for damage.
- Operators may form and operate a 1-Call service providing for mutual receipt of notifications in a defined geographical area.
- Any operator suffering damage resulting from not participating in 1-Call waives the right to recover damages, provided the excavator adheres to the Act.
- Only one 1-Call service shall be formed and operated w/i a defined geographical area.
- Operators notify 1-Call when facilities marked, or that no facilities exist at site.
- If excavator observes clear evidence of an unmarked line, work can not begin until additional notice to 1-Call. Excavator can then proceed, using reasonable care to avoid damage.
- Operators mark w/i 2 hrs of emergency notification.
- Operator notified of impending emergency shall mark prior of noticed time.
- Compliance with notice requirements is not required if emergency.
- Excavator providing a misrepresentation of an emergency excavation or impending emergency may be subject to penalties in 65-31-112.
- Person responsible for damage to facility shall immediately upon discovery of damage notify the operator and allow the operator reasonable time to accomplish necessary repairs before completing excavation.
- Person responsible for damage permitting the escape of flammable, toxic or corrosive gas/liquid shall immediately notify operator, police, fire dpt.
- Violators of Act guilty of Class A misdemeanor and subject to a fine not to exceed \$2,500 and/or imprisonment of no more than 48 hrs.
- Excavator not liable for damage if operator fails to mark after notification.
- Failure to appear or failure to respond to citation is a Class B misdemeanor.
- Removing/destroy markings guilty of vandalism.

## Attachment 4

AN ACT to amend Tennessee Code Annotated, Title 65, Chapter 31, relative to pipeline corporations and underground utility damage prevention.

SECTION 1. Tennessee Code Annotated, Section 65-31-102 is amended by deleting the following subsections in their entirety and by substituting instead the following:

(2) "Damage" means any impact or exposure that results in the need to repair an underground utility or sewer service extension due to the weakening or the partial or complete destruction of the underground utility or sewer service extension, including, but not limited to, the protective coating, lateral support, cathodic protection, or the housing for the line, device, sewer service extension or underground utility;

(4) "Excavate" or "excavation" means an operation for the purpose of the movement, placement, or removal of earth, rock, or other materials in or on the ground by use of mechanized equipment or by discharge of explosives, and including, but not limited to, augering, boring, pot-holing with mechanized equipment, backfilling, digging, ditching, drilling, grading, plowing-in, pulling-in, ripping, scraping, trenching and tunneling. "Excavate" or "excavation" does not include the tilling of soil for agricultural purposes, the digging of holes for fence posts on private property in any area that is not located within a recorded easement of an operator or that is not located within one hundred feet of the edge of the pavement of a street or highway, or land surveying operations.

"Agricultural purposes" includes surface activities, such as plowing, planting and combining, but does not include setting drainage tiles, subsoiling or other sub-

## Attachment 4

surface activities. "Excavate" or "excavation" does not include any work done by a railroad entirely on land which the railroad owns and on which the railroad operates, provided there is no encroachment on any operator's rights-of-way or easements;

SECTION 2. Tennessee Code Annotated, Section 65-31-102 is amended by adding the following, new appropriately designated subsections:

- ( ) "Abandoned underground utility" means an underground utility void of hazardous material and taken out of service by an operator on or after July 1, 2009;
- ( ) "Authority" means the Tennessee Regulatory Authority;
- ( ) "Contract locator" means any person contracted by an operator specifically to determine the approximate horizontal location of the operator's underground utilities that may exist within the area specified by a notice served on the one-call service;
- ( ) "Hand digging" means any excavation involving nonmechanized tools or equipment. Hand digging includes, but is not limited to, digging with shovels, picks, and manual post hole diggers, vacuum excavation or soft digging;
- ( ) "Horizontal directional drilling" or "HDD" means a type of trenchless excavation that uses guidable boring equipment to excavate in an essentially horizontal plane without disturbing or with minimal disturbance to the ground surface;
- ( ) "Positive response system" or "PRS" means the automated information system operated and maintained by the one-call service at its location that allows

## Attachment 4

excavators, locators, operators, and other affected parties to determine the status of a locate request or design locate request;

( ) "Open cut utility locate" means a method of locating underground utilities that requires excavation by the operator or agent of the underground utility;

( ) "Record drawing information" means maps, drawings, diagrams, sketches, or any other depictions or descriptions of an underground utility that reflect the location at the time of installation in a reasonably accurate manner;

( ) "Roadway surface milling" means the removal of a uniform pavement section not including the base or subbase by rotomilling, grinding, or other means;

( ) "Sewer service extension" means the "T" or "Y" on a sanitary sewer main and any pipe extension out to the boundary of the right of way for the purpose of providing a point of connection for a property owner's sewer service line;

( ) "Unlocatable underground utility" means an underground utility that cannot be marked with reasonable accuracy using generally accepted techniques or equipment commonly used to designate underground utilities and sewer service extensions. This term includes, but is not limited to, nonconductive underground utilities and sewer service extensions and nonmetallic underground utilities that have no trace wires or records that indicate a specific location;

SECTION 3. Tennessee Code Annotated, Section 65-31-105(a) is amended by deleting in the first sentence the words "except operators participating in a" and by substituting instead the words "until becoming a member of the".

SECTION 4. Tennessee Code Annotated, Section 65-31-105(e) is amended by deleting in the first sentence the words and punctuation "After March 27, 1978,".

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SECTION 5. Tennessee Code Annotated, Section 65-31-106 is amended by deleting the current subdivision designation (a)(1) and by re-designating it as a new subsection (b), by deleting the current subdivision designation (a)(2) and by re-designating it as a new subsection (c), and by re-designating the subsequent subsections accordingly.

SECTION 6. Tennessee Code Annotated, Section 65-31-106 is further amended by adding the following language as a new appropriately, designated subsection:

( ) No person, including operators, shall request marking of a site through the one-call service unless excavating is scheduled to commence, and the excavation shall be completed within a fifteen day period. In addition, no person shall make repeated requests for re-marking, unless the repeated request is required for excavating to continue or due to circumstances not reasonably within the control of such person. Any person who fails to comply with this subsection shall be liable to the operator for \$100.00 or for actual costs, whichever is greater, for each repeated re-marking.

SECTION 7. Tennessee Code Annotated, Section 65-31-107 is amended by deleting the section in its entirety and by substituting instead the following:

65-31-107. All operators operating or maintaining underground utilities within the state shall participate as members in and cooperate with the one-call service. The activities of the one-call service shall be funded by all operators. All operators must provide an accurate description of their service upon becoming members of the one-call service.

#### **Attachment 4**

SECTION 8. Tennessee Code Annotated, Section 65-31-108 (a)(1) is amended by adding the following new sentence at the end of the subdivision: “Designation of the location of underground utilities or sewer service extensions through staking, flagging, permanent markers, or other marking shall be in accordance with the Uniform Color Code & Marking Guidelines color code as set forth in the Common Ground Alliance Best Practices in effect at the time the location of the underground utility is designated.”

SECTION 9. Tennessee Code Annotated, Section 65-31-108(d) is amended by adding the word “service” before the punctuation “.” at the end of the first sentence.

SECTION 10. Tennessee Code Annotated, Section 65-31-108 is amended by adding the following language as new subsections (d) and (h) and re-designating the current subsections accordingly:

(d) For the purposes of this chapter, the location of underground utilities which is provided by an operator in accordance with subsection (a) of § 65-31-106 to any person must be accurate to within twenty-four inches measured horizontally from the outer edge of either side of such underground utilities. If any underground utility becomes damaged by an excavator due to the furnishing of inaccurate information as to its location by the operator, such excavator shall not be subject to any liability resulting from damage to the underground utility or sewer service extension as a result of the excavation or demolition, provided that such person complies with the requirements of § 65-31-106 and there is no visible and obvious evidence to the excavator of the presence of an inaccurately marked underground utility or sewer service extension.

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(h) Upon documented evidence that the person seeking information as to the location of underground utilities or sewer service extensions has incurred losses or expenses due to inaccurate information, lack of information or unreasonable delays in supplying information by the operators, the operators shall be liable to that person for any such losses or expenses.

SECTION 11. Tennessee Code Annotated, Section 65-31-109(b) is amended by adding the following language to the end of the subsection: “In giving such notice, such person must specifically identify the dangerous condition involved. If it is later determined that the excavation did not qualify as an emergency excavation, all liabilities and penalties will accrue as if no notice had been given.”

SECTION 12. Tennessee Code Annotated, Section 65-31-111(a) is amended by deleting the subsection in its entirety and by substituting instead the following:

(a) Except as provided by subsection (b), in the event of any damage to or dislocation or disturbance of any underground utility or sewer service extension including appurtenances, covering or coating in connection with any excavation or demolition operation described in § 65-31-104, the person responsible for the excavation or demolition shall, immediately upon discovery of such damage, notify the operator of such utility of the location and nature of the damage and shall allow the operator reasonable time to accomplish necessary repairs before completing the excavation or demolition in the immediate area of such utility.

SECTION 13. Tennessee Code Annotated, Section 65-31-112 is amended by deleting the section in its entirety and by substituting instead the following:

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65-31-112. (a) Enforcement of this chapter by the authority shall follow the procedures described in this section. Nothing in this section shall limit the authority delegated to the state from the federal government or authorized pursuant to other state law.

(b) Every person who, while engaging in excavation or demolition, willfully fails to comply with the chapter by failing to provide the notice to the operators of the underground utilities near the excavation or demolition area through the one-call service as required by § 65-31-106 shall be subject to a penalty of up to \$100,000 for each separate offense up to a maximum penalty of \$1,000,000 and shall be liable to the operators for all costs incurred resulting from the damage to their underground utilities.

(c) Every person who, while engaging in excavation or demolition, has provided the notice to the operators of underground utilities in or near the area of the excavation or demolition through the one-call service as required by § 65-31-106, but otherwise willfully or recklessly damages any underground utilities shall be subject to a penalty of up to \$25,000 for each separate offense and shall be liable to the operators for all costs incurred resulting from the damage to their underground utilities.

(d) Every person who, while engaging in excavation or demolition, has provided the notice to the operators of underground utilities in or near the area of the excavation or demolition through the one-call service as required by § 65-31-106, but otherwise, while acting reasonably, damages any underground utilities, shall not be subject to a penalty, but shall be liable to the operators for all costs

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incurred resulting from the damage to their underground utilities provided the underground utility is properly marked as provided in § 65-31-108.

(e) Every person who, while engaging in excavation or demolition, provides notice to the operators through the one-call service as an emergency locate request and the locate request is not an emergency locate request as defined in § 65-31-106 shall be subject to a penalty of up to \$2,500 for each separate offense.

(f) Any operator who willfully fails to comply with this chapter by a failure to mark the location of an underground utility or by a failure to provide notice that underground utilities are not within the proposed excavation or demolition area as required in § 65-31-108, or who willfully fails to respond after being notified of planned excavation or demolition through the one-call service, shall be subject to a penalty of up to \$25,000 for each separate offense.

(g) As provided in § 65-31-107, any operator who fails to join the one-call service by January 1, 2010 shall be subject to a penalty of \$100 per day for each separate offense. Each day an operator fails to comply with this subsection shall constitute a separate offense.

(h) No operator of an underground utility shall be subject to a penalty where a delay in marking or a failure to mark or properly mark the location of an underground utility is caused by conditions beyond the reasonable control of such operator, provided that the operator notifies the one-call service of the delay within three days of the initial request.

(i) Except for the purpose of re-marking or during the course of the excavation for which the markings were made or after completion of the project, any person who

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removes, alters, or otherwise damages markings, flags, or stakes used to mark the location of an underground utility shall be subject to a penalty up to \$1,000 for each separate offense.

(j) The excavator shall exercise due care at all times to protect underground utilities. If, after proper notification through the one-call service and upon arrival at the site of a proposed excavation, the excavator observes clear evidence of the presence of an unmarked underground utility in the area of the proposed excavation, the excavator shall not begin excavating until two hours after an additional call is made to the one-call service for the area. The operator of the underground utility shall respond to the one-call service within two hours of the excavator's call to the one-call service.

(k) The authority shall have the power and jurisdiction to, and shall, enforce the provisions of this chapter. The authority may impose civil penalties as provided in this section. The authority may promulgate rules and develop enforcement policies in order to implement compliance with this chapter. When a penalty is warranted, the following criteria shall be used in determining the magnitude of the penalty: (1) seriousness of noncompliance; (2) culpability of offender; (3) any history of noncompliance for the eighteen months prior to the date of the incident; (4) ability to pay penalty; (5) a showing of good faith by the offender; (6) ability to continue business; and (7) other special circumstances.

(l) The authority may, by order entered after a hearing on notice duly served on any person not less than thirty days before the date of the hearing, impose civil penalties provided herein if the authority finds a violation of this chapter.

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(m) All such actions under this chapter shall be conducted in accordance with the uniform administrative procedures act, §§ 4-5-301 et. seq.

(n) All penalties recovered in any action under this chapter shall be paid into the public utilities fund.

(o) If, after receiving proper notification as required in § 65-31-106 an operator fails to locate its utilities as required in § 65-31-108, an underground utility of such operator is damaged by an excavator who has otherwise complied with the provisions of this chapter, the excavator shall not be liable for such damage which is a proximate result of the operator's failure to locate.

(p) The authority, through its rules of practice and procedure, may utilize an alternative dispute resolution process to address complaints made under this chapter.

SECTION 14. Tennessee Code Annotated, Title 65, Chapter 31 is amended by adding the following, new, appropriately designated section:

65-31-1--. (a) The provisions of this chapter shall not apply to employees of the Tennessee department of transportation acting within the scope of their employment, and certain employees of those counties, cities, and towns which maintain their streets or roads performing street or roadway maintenance operations and acting within the scope of their employment, excavating entirely within the right of way of a public road, street or highway of the state provided that reasonable care is taken to protect the utilities placed in the right of way by permit and they:

(1) Excavate within the limits of the original excavation; on the traveled way, shoulders or drainage features of a public road, street, or highway and any excavation

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does not exceed eighteen inches (0.45 meter) in depth below the grade existing prior to such excavation; or

(2) Are replacing previously existing structures in their previous locations.

(b) In the case where the use of the state highway systems, streets and roads, or other public ways maintained by political subdivisions is impaired by an unforeseen occurrence, officials of the department of transportation or the political subdivision shall determine the necessity of repair beginning immediately after the occurrence.

(c) This chapter is not intended to affect any rights, powers, interest, or liability of the state or the department of transportation with respect to the state highway system, the county road system, or the municipal street system, or of a county with respect to the county road system or of a municipality with respect to the city street system, with relation to any underground utility which is or may be installed within the limits of any public road or street right of way, whether the installation is by written or verbal permit, easement, or any form of agreement whatsoever.

SECTION 15. Tennessee Code Annotated, Title 65, Chapter 31 is amended by adding the following, new, appropriately designated section:

65-31---. (a)(1) Within three working days following receipt by the one-call service of the locate request filed in accordance with § 65-31-106, each operator shall determine whether or not underground utilities or sewer service extensions are located on the tract, parcel of land, or public right of way upon which the excavation or demolition is to occur. If underground utilities or sewer service extensions are determined to be present, the operator shall designate, through stakes, flags, permanent markers, or other marks on the surface of the tract or parcel of land, the location of underground utilities or

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sewer service extensions.

(2) An operator is not required to mark its own utilities within three working days if the operator or its agents are the only parties performing the excavation; however, such utilities shall be marked prior to the actual start of excavation.

(b)(1) Within three working days following receipt by the one-call service of the locate request filed in accordance with § 65-31-108 and for the purpose of horizontal directional drilling, each sewer system operator shall determine whether or not sewer service extensions are located or likely to be located on the tract, parcel of land, or public right of way upon which the excavation or demolition is to occur. If sewer service extensions are determined to be present or likely to be present, then the sewer system operator shall assist in designating sewer service extensions up to the boundary of the public right of way. Such assistance shall not constitute ownership or operation of the sewer service extension by the sewer system operator. A good faith attempt to comply with provisions of this subsection in response to a locate request shall constitute full compliance with this chapter, and no person shall be found liable to any party for damages or injuries as a result of performing in compliance with the requirements of this subsection.

(2) To assist in designating sewer service extensions, the sewer system operator shall provide its best available information regarding the location of the sewer service extensions to the excavator. Best available information shall include, but shall not be limited to record drawing information. This information shall be conveyed to the excavator in a manner that may include, but shall not be limited to:

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(A) Marking the location of sewer service extensions in accordance with subsection (a) of this section, provided that:

(i) Any sewer service extension designated using the best available information shall constitute a good faith attempt and shall be deemed to be in compliance with this subsection, provided that such mark represents only the best available information of the sewer system operator and may not be accurate; and

(ii) If a sewer service extension is unlocatable, a triangular green mark shall be placed at the sewer main pointing at the address in question to indicate the presence of an unlocatable sewer service extension.

(c) Each operator, either upon determining that no underground utility or sewer service extension is present on the tract or parcel of land or upon completion of the designation of the location of any underground utilities or sewer service extensions on the tract or parcel of land as required by subsection (a) or (b) of this section shall provide this information to the one call-service in accordance with procedures developed by the one-call service, which may include the use of the positive response system (PRS).

(d) If, at the end of the time period specified in subsections (a) and (b) of this section, any operator has not complied with the requirements of subsections (a), (b), and (c) of this section, as applicable, the one-call service shall issue a second request to each such operator. If the operator does not respond to this additional request within two hours, either by notifying the one-call service in accordance with procedures developed by the one-call service that no underground utilities or sewer service extensions are present on the tract or parcel of land, or by designating the location of such underground

#### **Attachment 4**

utilities or sewer service extensions in accordance with the provisions of subsections (a) and (b) of this section, as applicable, then the person providing notice pursuant to § 65-31-106 may proceed with the excavation or demolition, provided that there is no visible and obvious evidence of the presence of an unmarked underground utility or sewer service extension on the tract or parcel of land. Such person shall not be subject to any liability resulting from damage to the underground utility or sewer service extension as a result of the excavation or demolition, provided that such person complies with the requirements of § 65-31-1--, relative to the duties of excavators.

(e) All underground utilities installed on or after January 1, 2010, shall be installed in a manner which will make them locatable using a generally accepted electronic locating method. All sewer service extensions and property owner sewer services from the end of the sewer service extension to the structure installed on or after January 1, 2010, shall be installed in a manner which will make them locatable using a generally accepted electronic locating method. In the event that an unlocatable underground utility or unlocatable sewer service extension becomes exposed when the operator is present or in the case of sewer service extensions when the sewer utility operator is present on or after January 1, 2010, such underground utility or sewer service extension shall be made locatable through the use of a permanent marker or an updating of permanent records.

(f) For underground utilities abandoned after July 1, 2009, operators shall make a reasonable attempt to keep records of these abandoned underground utilities, excluding service lines connected to a single-family dwelling unit. When an operator has knowledge that the operator's abandoned underground utilities may be present within the

#### **Attachment 4**

area of the proposed excavation, the operator shall provide a response to the one-call service. Such information regarding abandoned underground utilities shall be for informational purposes only. Any operator shall not be liable to any person, or subject to civil penalties, as a result of the operator's providing incorrect information regarding abandoned underground utilities or the subsequent use of such information. The one-call service may refer any person with concerns about the accuracy of information regarding abandoned underground utilities to the appropriate operator.

(g) Notwithstanding any other provision of law to the contrary, an operator may use a locator to designate any or all underground utilities and sewer service extensions. The use of a locator shall not relieve the operator of any responsibility under this chapter. However, by contract a operator may be indemnified by a locator for any failure on the part of the locator to comply with the provisions of this chapter.

(h)(1) Within three working days following receipt by the one-call service of the locate request filed in accordance with § 65-31-106, each operator shall determine whether or not unlocatable utilities other than sewer service extensions are present. In the event that such utilities are determined to be present, the operator shall exercise reasonable care in locating such utilities. The exercise of reasonable care shall require, at a minimum, the use of the best available information to designate the utilities and notification to the one-call service of such attempted location. Placing markers or otherwise leaving evidence of locations of underground utilities is deemed to be an acceptable form of notification to the excavator or locator.

(2) This subsection shall not apply to sewer service extensions.

## Attachment 4

SECTION 16. Tennessee Code Annotated, Title 65, Chapter 31 is amended by adding the following, new, appropriately designated section:

65-31---. (a) Persons engaged in demolition or in excavation with mechanized excavating equipment shall not strike, damage, injure, or loosen any underground utility or sewer service extension which has been staked, flagged, or marked in accordance with this chapter.

(b) When excavation or demolition is to take place within the tolerance zone, the excavator shall exercise such reasonable care as may be necessary for the protection of the underground utility or sewer service extension, including permanent markers and paint placed to designate underground utilities. This protection shall include, but may not be limited to, hand digging, pot-holing, soft digging, vacuum excavation methods, pneumatic hand tools, other mechanical methods with the approval of the operator, or other generally accepted methods. For parallel type excavations, the existing utility shall be exposed at intervals as often as necessary to avoid damage.

(c) When conducting trenchless excavation, the excavator must exercise reasonable care, as described in subsection (b) of this section, and shall take additional care to attempt to prevent damage to underground utilities and sewer service extensions. If HDD crosses natural gas service lines or is less than three feet from a natural gas main at any point along the route of the HDD, pot-holing is required at sewer service extensions. The excavator will coordinate pot-holing along the drilling alignment with the natural gas utility operator so that the operator can check for the presence of natural gas at the pothole locations. The authority is authorized to adopt by rule additional criteria to define additional care.

#### **Attachment 4**

SECTION 17. Tennessee Code Annotated, Title 65, Chapter 31 is amended by adding the following, new, appropriately designated section:

65-31---. The authority shall establish an advisory committee. The Tennessee one-call service damage prevention committee may submit names of potential members of the advisory committee to the authority for consideration. The authority may promulgate rules and regulations setting out the membership and duties of the advisory committee.

SECTION 18. Tennessee Code Annotated, Title 65, Chapter 31 is amended by adding the following, new, appropriately designated section:

65-31---. (a) Any person may report a probable violation of this chapter by filing a written or an electronic report in a form as may be designated by the authority from time to time; provided that all such reports shall be filed electronically whenever and wherever possible, but a written report may be filed by a person lacking computer reporting or communication capability. All probable violations shall be reported to the authority within thirty days of a person becoming aware of the circumstances constituting the probable violation.

SECTION 19. The authority is empowered to promulgate rules and regulations to implement this chapter.

SECTION 20. If any provision of this act is held invalid, the remainder of this act shall not be affected.

SECTION 21. This act shall become effective July 1, 2009, the public welfare requiring it.

## Attachment 4

## Attachment 5

### DRAFT

**STATE OF TENNESSEE  
TENNESSEE REGULATORY AUTHORITY  
Gas Pipeline Safety Division  
Underground Utility Damage Prevention Program**

#### ENFORCEMENT SECTION

##### I. Purpose

The “Pipeline Inspection, Protection, Enforcement and Safety Act of 2006” (PIPES Act of 2006) includes the following:

(1) CONTENTS OF CERTIFICATIONS.—Section 60105(b)(4) is amended to read as follows:

“(4) is encouraging and promoting the establishment of a program designed to prevent damage by demolition, excavation, tunneling, or construction activity to the pipeline facilities to which the certification applies that subjects persons who violate the applicable requirements of that program to civil penalties and other enforcement actions that are substantially the same as are provided under this chapter, and addresses the elements in section 60134(b);”.

The State of Tennessee through the Tennessee Underground Utility Damage Prevention Act (TUUDPA) provides the foundation for a damage prevention program. However, the present law is not enforced in a consistent and effective manner. The purpose of this document is to set forth a model damage prevention enforcement section within the Gas Pipeline Safety Division and under the auspices of the Tennessee Regulatory Authority (TRA).

##### II. Amended Underground Utility Damage Prevention Act

The PIPES Act of 2006 lists nine requirements that an effective damage prevention program should include. These requirements are referred to as the “Nine Elements to an Effective Damage Prevention Program” The present TUUDPA will be amended to support a damage prevention program that includes elements indicative of an effective program. The amended state law will address issues as follows:

- Operators to join notification centers.  
*Each operator, including counties, cities and towns, but excluding the Department of Transportation, having the right to bury underground utility lines shall join the Tennessee One-Call System, Inc.*
- Notification and procedures for designers.

- Procedures for operators in response to a designer notice.  
*Respond to a designer's request for underground utility line information.*
- Notification requirements.
- Duties of the operator; regulations.
- Locating nonmetallic underground utility lines.
- Duties of the notification center upon notification by person intending to excavate.
- Exemptions for roadway maintenance operations by the Tennessee Department of Transportation and certain counties, cities and towns.
- Duties of the excavator.
- Liability of the operator and excavator; penalties.
- Utility line depth requirement.
- Mandatory reporting of damage to underground facilities.
- Authority of the Tennessee Regulatory Authority  
*The Authority shall enforce the provisions of the Tennessee Underground Utility Damage Prevention Act. The Authority may promulgate any rules or regulations necessary to implement the Authority's authority to enforce the requirements of the TUUDPA.*
- Authority to establish advisory committee.
- Authority to impose civil penalties for certain violations.
- Establishment of Underground Utility Damage Prevention Special Fund.

The amended TUUDPA will address each of these issues in detail and will provide the legal basis for consistent and effective 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 assessed. The stakeholder group established in conjunction with Tennessee One-Call will be active in the development of the amended act.

### **III. TRA Commission**

The TRA Commission shall enforce the provisions of the TUUDPA. The responsibilities of the TRA Commission will be as follows:

- Establish a damage prevention act enforcement section.
- Promulgate any rules or regulations necessary to implement the Commission's authority to enforce the act.
- Establish an advisory committee that consists of representatives of the following entities: TRA staff, utility operators, notification center, excavator, municipality, Tennessee Department of Transportation, Contractors' Licensing Board, utility design engineer and underground line locator.

### **IV. Advisory Committee**

An advisory committee will be established by the TRA Commission. The advisory committee responsibilities will include the following:

- Perform duties assigned by the TRA Commission.
- Function as a stakeholder group for the damage prevention program.

## **V. Enforcement Section**

The enforcement section will be established within the Gas Pipeline Safety Division of the Tennessee Regulatory Authority. Model enforcement section details are as follows:

- Physical location - TRA Building at 460 James Robertson Parkway, Nashville, TN. 37243.
- Initial personnel – section supervisor, two investigators and one office administrative assistant.
- Office space – one office and three cubicle areas.
- Equipment – copier, facsimile machine four telephones, four computers and standard office furniture for four people.
- Vehicle – One vehicle will be assigned specifically to the section. Should occasions arise that more than one vehicle is needed at the same time, an additional vehicle will be made available through the use of a state loaner vehicle or Gas Pipeline Safety Division vehicle, if available.

## **VI. Section Responsibilities**

The enforcement section through its investigative staff will be responsible for the following:

- Receiving and investigating alleged violations of the damage prevention act. *Since the actual event will have occurred prior to notification of the enforcement section, the investigator may not find it necessary to immediately visit the site of the alleged violation. It is anticipated that most investigations will be completed without extensive travel.*
- Obtain all of the incident information from the effected natural gas distribution company and the alleged violator.
- Conduct an impartial review of the information and interview each of the participants for additional facts and/or answers to questions arising from the investigation. *The review will include the initial locate request (or lack of same) and the steps taken by each party in the effort to prevent damage to the underground facility.*
- Prepare a report of investigation findings and recommendations for submittal to the advisory committee and respond to questions or concerns of the advisory committee.
- Participate in damage prevention training and public awareness activities should alleged violation reporting decrease and time becomes available.

## **VII. Individual Staff Credentials and Responsibilities**

The staff will be comprised of a section supervisor, administrative assistant and two investigators. The credentials for each staff member will be as follows:

- Section supervisor – skillful in interacting with other people, personnel management skills, good common sense and general knowledge of underground utilities.
- Administrative assistant – high level of knowledge relative to use of a computer in developing and maintaining reports in electronic format and databases for storing and retrieving information. The purposes of the information compiled in the databases will be to track trends associated with damage prevention for use in development of proactive training, provide information to the DIRT program determining the effectiveness of the damage prevention program.
- Investigators – possess good knowledge of underground utilities and basic construction techniques, ability to focus on detail and facts and possess good report writing skills.

Basic responsibilities of individual staff members will be as follows:

- Section supervisor – manage personnel and monitor the overall day-to-day operation of the section. Analyze and interpret data for determining program effectiveness and areas of program improvement. Communicate with damage prevention personnel in other states maximize the benefits gained from experience.
- Administrative assistant – receive reports of alleged violations and forward to investigators, finalize reports, collect and submit employee time sheets, expense accounts and other forms, manage database and enter specific information.
- Investigators – solicit all information specific to an alleged violation, compile facts in an organized manner, interpret facts fairly and impartially and present findings and recommendations in the form of a report to the TRA Commission.

### **VIII. Penalties**

Penalties will be as set forth in the amended Tennessee Underground Utility Damage Prevention Act.

The amount of a civil penalty assessed on someone found in violation of the damage prevention act will be determined on a case by case basis. Consideration will be based on the gravity of the violation or violations; the degree of the respondent's culpability; the respondent's history of prior offenses; and such other mitigating factors as may be appropriate.

If commission investigators find that a probable violation has occurred, they may recommend training in lieu of penalties to any person for any violation. The commission shall provide suggestions for corrective action to any person requesting such assistance. Commission investigators shall make recommended findings or offers of settlement to the respondent.

All civil penalties ordered by the commission and collected pursuant to this act shall be deposited in the special fund.

### **IX. Operational Costs**

Estimated salary and benefit costs for operation of the enforcement section are reflected in the following table.

<b>Salaries and Benefits</b>			
Position	Salary	Benefits	Total
Supervisor	\$55,000	\$15,400	\$70,400
Investigator	\$40,000	\$11,200	\$51,200
Investigator	\$40,000	\$11,200	\$51,200
Admin. Asst	\$38,000	\$10,640	\$48,640
Totals	\$173,000	\$48,440	\$221,440

The estimated operational costs and initial capital costs for the enforcement section are shown in the following table.

<b>Program Costs</b>		
Item	Amount	Cum Total
Salaries	\$173,000	\$173,000
Benefits	\$48,440	\$221,440
Equipment	\$20,000	\$241,440
Office Furnishings	\$5,000	\$246,440
Contingencies	\$47,000	\$293,440

### **X. Initial Funding**

Funding options are presently being developed.

**Calculation of Staff Requirements Based on Population**

<b>Attachment 6</b>								
	2000	2001	2002	2003	2004	2005	2006	2007
<b>Population</b>								
Georgia	8,230,919	8,422,127	8,591,169	8,740,008	8,921,371	9,107,719	9,342,080	9,544,750
Tennessee	5,703,415	5,754,637	5,801,841	5,853,371	5,912,063	5,989,309	6,074,913	6,156,719
Difference	2,527,504	2,667,490	2,789,328	2,886,637	3,009,308	3,118,410	3,267,167	3,388,031
Multiple	1.44	1.46	1.48	1.49	1.51	1.52	1.54	1.55
<b>Change</b>								
Georgia		191,208	169,042	148,839	181,363	186,348	234,361	202,670
Tennessee		51,222	47,204	51,530	58,692	77,246	85,604	81,806
Difference		139,986	121,838	97,309	122,671	109,102	148,757	120,864
Multiple		3.73	3.58	2.89	3.09	2.41	2.74	2.48
<b>% Change</b>								
Georgia		2.32%	2.01%	1.73%	2.08%	2.09%	2.57%	2.17%
Tennessee		0.90%	0.82%	0.89%	1.00%	1.31%	1.43%	1.35%
Difference		1.42%	1.19%	0.84%	1.07%	0.78%	1.14%	0.82%
Multiple		2.59	2.45	1.95	2.07	1.60	1.80	1.61
								<b>Total Staff</b>
								7 Georgia
								4.5 Tennessee
								<b>Breakdown by function</b>
								<b>Georgia</b>
								1 Manager
								1 Administrator
								1 Attorney
								4 Investigators
								<b>Tennessee calculation based on population</b>
								0.6 Manager
								0.6 Administrator
								0.6 Attorney
								2.6 Investigators
								4.5 Total
								<b>One Tennessee option</b>
								3 Investigators
								1 Administrator
								Manager shared
								Attorney shared
								4 Total

SUMLEV	REGION	DIVISION	STATE NAME	CENSUS2000POP	ESTIMATESBASE2000	POPESTIMATE2000	POPESTIMATE2001
40	3	5	13 Georgia	8,186,453	8,186,816	8,230,919	8,422,127
40	3	6	47 Tennessee	5,689,283	5,689,262	5,703,415	5,754,637
			Diff.	2,497,170	2,497,554	2,527,504	2,667,490
			Multiple	1.438925256	1.438994372	1.443156249	1.463537492

NAME	POPESTIMATE2002	POPESTIMATE2003	POPESTIMATE2004	POPESTIMATE2005	POPESTIMATE2006	POPESTIMATE2007
Georgia	8,591,169	8,740,008	8,921,371	9,107,719	9,342,080	9,544,750
Tennessee	5,801,841	5,853,371	5,912,063	5,989,309	6,074,913	6,156,719
Diff.	2,789,328	2,886,637	3,009,308	3,118,410	3,267,167	3,388,031
Multiple	1.480766019	1.493158045	1.509011491	1.520662734	1.53781297	1.550298138

NAME	NPOPCHG_2000	NPOPCHG_2001	NPOPCHG_2002	NPOPCHG_2003	NPOPCHG_2004	NPOPCHG_2005	NPOPCHG_2006
Georgia	44,103	191,208	169,042	148,839	181,363	186,348	234,361
Tennessee	14,153	51,222	47,204	51,530	58,692	77,246	85,604
Diff.	29,950	139,986	121,838	97,309	122,671	109,102	148,757
Multiple	3.116159118	3.732927258	3.581094822	2.88839511	3.09008042	2.412396758	2.737734218





NAME	NATURALINC2000	NATURALINC2001	NATURALINC2002	NATURALINC2003	NATURALINC2004	NATURALINC2005
Georgia	16429	69270	68542	68573	70562	74400
Tennessee	6326	23802	21990	21381	22369	23520
Diff.						
Multiple						

NAME	NATURALINC2006	NATURALINC2007	INTERNATIONALMIG2000	INTERNATIONALMIG2001	INTERNATIONALMIG2002
Georgia	75983	78223	10944	39283	35294
Tennessee	24598	24771	2789	9996	8868
Diff.					
Multiple					

NAME	INTERNATIONALMIG2003	INTERNATIONALMIG2004	INTERNATIONALMIG2005	INTERNATIONALMIG2006
Georgia	24110	34862	30835	34156
Tennessee	5960	8910	7814	8673
Diff.				
Multiple				

NAME	INTERNATIONALMIG2007	INTERNALMIG2000	INTERNALMIG2001	INTERNALMIG2002	INTERNALMIG2003	INTERNALMIG2004
Georgia	31330	16848	55390	43076	32792	52309
Tennessee	7919	4876	11728	11761	20934	24201
Diff.						
Multiple						









NAME	RNATURALINC2001	RNATURALINC2002	RNATURALINC2003	RNATURALINC2004	RNATURALINC2005	RNATURALINC2006
Georgia	8.319198782	8.057462822	7.91325367	7.990542528	8.253328371	8.2367293
Tennessee	4.154632917	3.805657745	3.668916533	3.802494664	3.952485478	4.077842732
Diff.						
Multiple						

NAME	RNATURALINC2007	RINTERNATIONALMIG2001	RINTERNATIONALMIG2002	RINTERNATIONALMIG2003
Georgia	8.283338178	4.717815588	4.148990296	2.782269202
Tennessee	4.050318061	1.744799203	1.534723642	1.02271842
Diff.				
Multiple				

NAME	RINTERNATIONALMIG2004	RINTERNATIONALMIG2005	RINTERNATIONALMIG2006	RINTERNATIONALMIG2007
Georgia	3.9478231	3.420583069	3.702587763	3.317655742
Tennessee	1.514606261	1.313125915	1.437805107	1.294839479
Diff.				
Multiple				

NAME	RINTERNALMIG2001	RINTERNALMIG2002	RINTERNALMIG2003	RINTERNALMIG2004	RINTERNALMIG2005
Georgia	6.652236474	5.063804215	3.784163072	5.923546514	6.969736132
Tennessee	2.047119353	2.035395213	3.592212651	4.11391539	7.215974763
Diff.					
Multiple					

NAME	RINTERNALMIG2006	RINTERNALMIG2007	RNETMIG2001	RNETMIG2002	RNETMIG2003	RNETMIG2004	RNETMIG2005
Georgia	13.83982557	9.954449741	11.37005206	9.212794511	6.566432274	9.871369614	10.3903192
Tennessee	8.624509728	7.957237432	3.791918557	3.570118855	4.614931071	5.628521651	8.529100679
Diff.							
Multiple							

NAME	RNETMIG2006	RNETMIG2007
Georgia	17.54241334	13.27210548
Tennessee	10.06231484	9.25207691
Diff.		
Multiple		