urbanized area over 200,000 in population (large urbanized area) and two or more urbanized areas under 200,000 in population (small urbanized areas) to separately allocate their operations, operational expense, and fixed guideway data among each of the urbanized areas under 200,000 in population that it serves. Previously, the NTD only accounted for a transit agency servicing one large urbanized area and one small urbanized area. It did not account for a transit agency servicing one large urbanized area and two small urbanized areas. This change will address that oversight, and provide data that can be used for the apportionment of Small Transit Intensive Cities (STIC) Grants, as required by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU).

Financial Module

FTA proposes to require transit agencies to separate funds that were previously reported as ''Other FTA Funds'' into different categories for each FTA program. Previously, the NTD required FTA funds only to be reported as either Urbanized Area Formula Funds (section 5307), Capital Program Funds (section 5309), or as Other FTA Funds. The additional categories being proposed by FTA are:

- FTA Metropolitan Planning (section 5303);
- Clean Fuels Program (section 5309);
- Special Needs of Elderly Individuals and Individuals with Disabilities Formula Program (section 5310);
- Other Than Urbanized Area Formula Program (section 5311);
- Jobs Access and Reverse Commute Formula Program (section 5316);
- New Freedom Program (section 5317); and
- Alternative Transportation in Parks and Public Lands (section 5320).

This requirement is designed to improve the NTD's usefulness as a source of information for public transportation planning purposes by providing greater detail as to the sources of funds that are available to transit agencies. Additionally, this requirement is designed to support measurement of performance for the various FTA grant-making programs.

Declarations

FTA proposes to create a standard form for submitting the Chief Executive Officer's (CEO) certification. Previously, CEOs submitted a letter to the NTD as their certification. In prior report years, many transit agencies have submitted CEO certifications that did not conform to all of the requirements for certification. By creating a standard form, FTA seeks to ensure the uniformity of CEO certifications, and to simplify the CEO certification process for reporters.

Sampling Requirement

FTA proposes, beginning in 2008, to require all transit agencies to conduct a statistical sample of average trip lengths (used for calculating passenger miles traveled) every three years, unless they are a large transit agency that is already required to sample every year. Previously, FTA only required some agencies to sample every five years. FTA proposes to require transit agencies that previously sampled only once every five years to now sample every three years in order to ensure the accuracy of passenger mile data used in the apportionment of funds, particularly in regard to the Small Transit-Intensive Cities (STIC) apportionment. Further, by moving most transit agencies to a single cycle for mandatory sampling, FTA will reduce confusion in regards to sampling requirements. FTA notes that 2008 was already going to be a mandatory sampling year for all transit agencies on both the three year cycle and the five year cycle.

Issued in Washington, DC, this 29th day of August 2007.

James S. Simpson,

Administrator.

[FR Doc. E7–17564 Filed 9–5–07; 8:45 am]

BILLING CODE 4910–57–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA–2007–29133; Notice No. 07–08]

Safety Advisory Guidance: Use of Mobile Acetylene Trailers

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA).

ACTION: Safety advisory notice; request for comments.

SUMMARY: This safety advisory is addressed to persons involved in the use, operation, fabrication, or other handling of mobile acetylene trailers. In this notice, we discuss recent acetylene incidents, requirements in the Hazardous Materials Regulations, national consensus standards issued by the Compressed Gas Association and National Fire Protection Association, operating procedures, fire mitigation and detection systems, and training of persons who operate, charge, and discharge mobile acetylene trailer systems. We urge companies and workers to review their operating practices to ensure that filling and discharge operations are conducted in the safest possible manner. In addition, we are requesting information on the effectiveness of current DOT regulations and industry best practices, as well as suggestions for enhancing the safety of these operations.

DATES: Submit comments by November 5, 2007.

ADDRESSES: You may submit comments identified by the docket number (PHMSA–2007–29133) by any of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Web Site: http://dms.dot.gov.* Follow the instructions for submitting comments on the DOT electronic docket site.
- *Fax:* 1 202 493 2251.
- *Mail:* Docket Operations, U.S. Department of Transportation, West Building, Ground Floor, Room W12–140, Routing Symbol M–30, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- *Hand Delivery:* Docket Operations, U.S. Department of Transportation, West Building, Ground Floor, Room W12–140, Routing Symbol M–30, 1200 New Jersey Avenue, SE., Washington, DC 20590 between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Instructions: You must include the agency name and docket number (PHMSA–2007–29133) for this notice at the beginning of your comment. Internet users may access comments received by the Department of Transportation at *http://dms.dot.gov.* Note that comments received may be posted without change to *http://dms.dot.gov* including any personal information provided.

FOR FURTHER INFORMATION CONTACT: Ben Supko, Office of Hazardous Materials Standards, Pipeline and Hazardous Materials Safety Administration, (202) 366–8553, or Charles Hochman, Director, Office of Hazardous Materials Technology, Pipeline and Hazardous Materials Safety Administration, (202) 355–4545.

SUPPLEMENTARY INFORMATION:

I. Background

Acetylene is a highly flammable gas that requires special packaging and handling procedures to be transported safely. Acetylene is regulated as a Division 2.1 flammable gas under the Hazardous Materials Regulations (HMR;

49 CFR parts 171–180) and is subject to stringent packaging and handling requirements. Acetylene is filled and transported in cylinders containing a porous mass and solvent; transportation in bulk containers is prohibited.

In place of bulk packaging, mobile acetylene trailers (MATs) are used to transport large quantities of acetylene. The Compressed Gas Association (CGA) defines a MAT as a group of cylinders, secured together as a unit, mounted on an open transport vehicle, and manifolded for containing and transporting acetylene.

On July 25, 2007, shortly after 9 am, at a Southwest Industrial Gases facility in Dallas, Texas, a MAT delivered by Western International Gas and Cylinders Inc. caught fire while the trailer was being prepared to discharge acetylene to the facility. The origin of the fire has not been identified. Witness reports state that a small fire began at the rear of the trailer and then spread to cylinders in the facility. The fire burned for more than an hour and ruptured a number of cylinders with explosive effects. Three people were injured. The fire caused the closure of local streets and Interstates 30 and 35E for much of the day and destroyed four trailers at the Southwest Industrial Gases facility. Both the Chemical Safety Board (CSB) and National Transportation Safety Board (NTSB) are investigating the incident; PHMSA is assisting with the investigations.

On August 7, 2007, just north of Houston, Texas, outside of the Hughes Christensen Co., a fire started on a MAT delivered by Western International Gas and Cylinders, Inc. None of the cylinders ruptured, and firefighters were able to douse the acetylene cylinders with water and keep the fire confined to the trailer. No one was hurt, but 800 employees were evacuated. NTSB and CSB are also investigating this incident; PHMSA is participating in the investigations.

II. PHMSA Regulations

The HMR specify requirements for the safe transportation of hazardous materials in commerce by rail car, aircraft, vessel, and motor vehicle. The hazardous material regulatory system is a risk management system that is prevention-oriented and focused on identifying a safety or security hazard and reducing the probability of and consequence from a hazardous material release. Under the HMR, hazardous materials are categorized into hazard classes and packing groups based upon the risks they present during transportation. The HMR specify appropriate packaging and handling requirements for hazardous materials, and require a shipper to communicate the material's hazards through use of shipping papers, package marking and labeling, and vehicle placarding. The HMR also require shippers to provide emergency response information applicable to the specific hazard or hazards of the material being transported. Finally, the HMR mandate training requirements for persons who prepare hazardous materials for shipment or who transport hazardous materials in commerce. The HMR also include operational requirements applicable to each mode of transportation. The HMR apply to each person who offers a hazardous material for transportation in commerce, causes a hazardous material to be transported in commerce, or transports a hazardous material in commerce (see 49 CFR 171.1(b) and (c)).

Under the HMR, acetylene is regulated as a Division 2.1 flammable gas. Acetylene is only authorized for transportation in DOT specification 8 or 8AL cylinders or in UN cylinders conforming to ISO 3807–2 (see 49 CFR 173.303). Transportation of acetylene in bulk packagings, such as cargo tanks, portable tanks, or rail tank cars is prohibited. Section 173.301(f) requires cylinders to be equipped with one or more pressure relief devices sized and selected as to type, location, and quantity, and tested in accordance with CGA S–1.1 and S–7. For acetylene, CGA S–1.1 requires DOT 8 or 8AL cylinders to be fitted with a CG–3 fusible plug, which operates at 212°F. The plug must be proven using the fire test method specified in CGA publication C–12. To ensure the stability of the acetylene during transportation, cylinders are constructed with porous filler and are charged with solvent. The porous filler is typically calcium silicate, and the solvent is typically acetone or dimethylformamide. The amount of solvent and porous filler must be closely monitored to prevent overfilling. Sections 178.59(l)(4)(i) and 178.60(p)(4)(i) establish requirements regarding the amount and porosity of the porous filler and maximum amount of solvent authorized based on the water capacity of DOT 8 and 8AL cylinders.

The HMR permit acetylene cylinders to be manifolded during transportation (see 49 CFR 173.301(g)(1)(iii)). However, the manifolded cylinders must conform to the following conditions: (1) Manifolded branch lines must be sufficiently flexible to prevent damage to the valves; (2) the cylinders must be supported and held together as a unit by structurally adequate means; (3) each cylinder must be equipped with an individual shutoff valve that is tightly closed in transit and an individual pressure relief device that discharges upward; and (4) the valves and pressure relief devices must be protected from damage by framing, a cabinet, or other method.

The requirements for the transportation of hazardous materials by highway are found in Part 177 of the HMR, including requirements for loading and unloading hazardous materials from highway transport vehicles. When cylinders containing acetylene and other Class 2 gases are transported in commerce, they must be securely restrained in a manner that prevents shifting, overturning, or ejection from the motor vehicle under normal transportation conditions (see 49 CFR 177.840(a)(1)). Normal transportation conditions include vehicle starting, stopping, cornering, accident avoidance, and varied road conditions. We request comments pertaining to the adequacy of current securement requirements for cylinders, including whether existing securement measures would withstand the force of an accident or rollover. Comments should consider the protection from damage afforded to manifolded cylinders by framing, cabinets, or other methods, as required by § 173.301(g)(1)(iii)).

Except for cargo tanks and portable tanks, the HMR generally prohibit the discharge or emptying of a package's contents prior to its removal from the motor vehicle (see 49 CFR 177.834(h)). However, this general prohibition does not apply in all circumstances. For example, it has been our longstanding interpretation that the prohibition in § 177.834(h) does not apply to tube trailers, which are 3AX, 3AAX, and 3T cylinders mounted to a transport vehicle, because removing them from the motor vehicle prior to discharging their contents is not practicable. We have long applied the same standard to discharge operations involving manifolded acetylene cylinders that are mounted to a transport vehicle.

III. National Consensus Standards

Several national consensus standards apply to the generation, storage, movement, and use of acetylene. The standards cover filling and discharge operations for acetylene cylinders and the transportation of such cylinders. Persons involved in these operations should thoroughly review these standards to ensure that they are utilizing appropriate safety practices. Below we list and summarize applicable national consensus standards.

A. CGA G–1, Acetylene

This standard, developed by the Compressed Gas Association (CGA), provides general information on the characteristics of acetylene and proper handling procedures. The publication begins by describing the manufacturing process, composition, properties, and the physiological effects of acetylene. It continues by detailing the HMR requirements that apply to shipments of acetylene. It describes authorized packaging, valves, pressure relief devices, filling limits, and hazard communication. In addition, it outlines safe methods for storing acetylene cylinders at a fixed facility location and safe methods for handling and using acetylene. The standard concludes by discussing the type of piping that is suitable for acetylene.

B. NFPA 51A—Standard for Acetylene Cylinder Charging Plants

This standard, published by the National Fire Protection Association (NFPA), establishes safeguards for the design, construction, and installation of acetylene cylinder charging plants. The standard applies to plants that are engaged in the generation and compression of acetylene and charging of cylinders with acetylene. The standard applies to the location, arrangement, construction, design, and development of facilities used in the generation of acetylene and also includes valuable information regarding the charging of manifolded cylinders. In fact, Chapter 10 of the NFPA 51A standard specifically addresses facility-based acetylene cylinder charging manifolds. Though the standard does not provide specific transportation-related information, the safety precautions recommended for facility-based charging stations are very similar to those used to charge MATs, including:

- Charging manifolds must have a shutoff and blowdown valve vented outside or to the low pressure system.
- A check valve must be installed in the facility pipeline at each cylinder charging manifold and lead.
- Pressure gauges must be protected by a device that stops a detonation of flame and limits a rise in pressure.
- Manifold outlets must have a shutoff valve.
- Manifolds must be arranged to limit stress in the cylinder charging leads.
- In order to prevent liquefying of acetylene at low ambient temperatures, specific maximum charging pressures based on ambient air temperature must be followed.
- Cylinder valves must be opened first at the start of charging and closed last at the end of charging.
- Acetylene cylinders connected to charging manifolds must have provisions for cooling by water spray applied from a manually activated spray nozzle system where needed for removing heat from solution acetylene, as determined by ambient temperature and cylinder charging rate.

C. CGA G–1.6, Recommended Practices for Mobile Acetylene Trailer Systems

In this publication, CGA provides safe practices for the design, construction, and operation of MATs. The publication also provides recommended safe practices for auxiliary equipment used in conjunction with MATs, including piping, regulators, flash arrestors, and meters. The standard specifically addresses the following areas:

1. *Design and construction (CGA G–1.6, Section 4)*
- Trailer must conform to all applicable Federal, state, and local regulations.
- A grounding system for the piping that conforms to NFPA 70, National Electrical Code, must be provided to ground the piping system.
- Piping must: be carbon steel, stainless steel, wrought iron, malleable iron, or copper alloys containing not more than 65% copper; conform to the American National Standard Institute A13.1, Scheme for Identification of Piping Systems; be braced and supported; and meet the appropriate Schedule based on pressure.
- Leads between cylinders and manifolds must be sufficiently long and flexible to minimize strain on valves and leads.
- Manifolds must be equipped with a shut-off valve, pressure gauge, and vent.
- Vents and pressure relief devices must be directed upwards above the acetylene piping.
- Protective equipment must be installed between a MAT and facility piping.
- Cylinders must: conform to the HMR; be vertical, supported, and secured; have valves that are capable of being closed in the event of an emergency; have similar functional characteristics, including dimensions, porous mass, solvent, and solvent quantity; and be arranged in aisles to allow access.

2. *Operation (CGA G–1.6 Section 5)*
- To be charged, cylinders must conform to applicable HMR requirements.
- Cylinders must be marked in accordance with CGA C–7, ''Guide to the Preparation of Precautionary Labeling and Marking of Compressed Gas Containers.''
- In order to prevent liquefying of acetylene, specific maximum charging pressures based on ambient air temperature must be followed.
- During cylinder charging, valves are to be opened first and closed after the pressure between manifolded cylinders equalizes (takes several hours).
- Valves must be closed during transportation.
- Acetylene pressure must be maintained in leads and manifolds during delivery and return shipments.
- Legible instructions must be posted at the discharge location when consumers use any equipment to discharge the acetylene.
- The trailer must be chocked or secured to prevent movement during discharge.
- During any manual valve operations, or when the trailer is being connected or disconnected, a trained person must be in attendance.
- When acetylene is discharged in an enclosure, appropriate venting to the outside must be used.
- The flow rate of acetylene for intermittent withdrawal from the trailer must not exceed 10% of the trailer capacity per hour, for continuous withdrawal the flow rate should not exceed 6.6% (1/15) of the trailer capacity per hour.

3. Associated equipment (CGA G–1.6, Section 6)
- The trailer discharge station must be in conformance with NFPA 50, ''Standard for Bulk Oxygen Systems at Consumer Sites'' and be a minimum distance of 50 feet from property lines, bulk flammable liquid storage, and non-acetylene bulk flammable gas storage.
- The trailer must be a minimum distance of 25 feet from property lines, 50 feet from combustible construction, and 15 feet from non-combustible construction.
- The trailer site must: Provide adequate space for positioning the trailer and be protected with curbing or guardrails; be not exposed to power, flammable liquid, flammable gas, or oxidizing lines; be equipped with signage stating ''ACETYLENE—FLAMMABLE GAS'NO SMOKING—NO OPEN FLAMES'; and have a grounding system for the trailer.
- Appropriate hoses, meters and electrical equipment must be used.

4. General provisions (CGA G–1.6, Section 7)
- MATs must be marked and placarded in accordance the Part 172, Subparts D and F of the HMR.
- Charging and discharging stations for MATSs must be provided with

conspicuously located and easily accessible fire hoses or fixed spray systems and dry chemical fire extinguishers. Nozzles on fire hoses should be of the type that adjusts from full stream to a fog pattern.

• Exits and fire protection equipment may not be blocked or obstructed.

IV. Recommended Practices

The standards summarized above outline specific procedures for filling, discharging, and transporting acetylene cylinders and for storing and using acetylene. Based on our review of the recent incidents and the applicable national consensus standards, we recommend that entities involved in the transportation of acetylene, particularly the filling and discharge of manifolded cylinders mounted on a motor vehicle, implement safety procedures conforming to applicable sections of CGA G–1, ''Acetylene (1990), NFPA 51A Standard for Acetylene Charging Plants'' (2006 Edition), and CGA G–1.6, ''Recommended Practices for Mobile Acetylene Trailer Systems,'' (1996, Fourth Edition, Reaffirmed 2001). In addition, entities must ensure that acetylene cylinders fully comply with all HMR requirements applicable to the specification cylinder, including cylinder components such as valves, pressure relief devices, porous filler, and solvent.

The CSB Web site provides several examples of best practices to mitigate fires, including the use of fire monitors and water deluge and sprinkler systems. We strongly recommend that entities involved in the transportation of acetylene review the best practices highlighted by CSB and implement those that apply to their operations. In particular, facility operators should consider the installation of fire monitors and water deluge or sprinkler systems. In the event of a cylinder fire, the presence of such fire mitigation systems will help cool the cylinders, reducing the likelihood of additional gas releases, cylinder ruptures, and other potentially catastrophic consequences. For additional information, the CSB's Web site provides best practices based on a Praxair Flammable Gas Cylinder Fire that occurred in St. Louis, MO on June 24, 2005. A safety bulletin and video addressing the Praxair incident can be found at *http://www.csb.gov/index.cfm?folder=completed_investigations&page=info&INV_ID=59#*.

The acetylene accidents covered in this safety advisory notice occurred in conjunction with our assessment of the safety risks associated with bulk loading and unloading operations. On June 14, 2007, we hosted a public workshop to examine industry data, identify industry best practices and standards, discuss the role of recommended practices, and consider industry actions that have the potential to reduce risk during loading and unloading. Representatives from industry, federal agencies, state and local government, standards organizations, the emergency response community, employee groups, environmental and public interest organizations, and the public participated in the meeting. As a result of this collaborative effort between PHMSA and our stakeholders, we developed a set of recommended practices that are generally applicable to loading and unloading operations involving hazardous materials in many different types of packagings and a number of different operational and modal contexts. Consistent with these recommended practices, we recommend that shippers and carriers of acetylene develop and implement specific procedures for loading and unloading operations that are based on an assessment of the safety risks associated with the type of loading or unloading operation being conducted and the material or materials involved. Please consider the following guidelines when developing operating procedures for acetylene:

(1) Make sure employees know and understand their specific responsibilities during loading and unloading operations, including attendance or monitoring responsibilities.

(2) Identify and implement appropriate safety precautions, including measures specific to the material transported, such as pressure or temperature controls and maximum filling limits; necessary protective equipment; controlling access to the area where the operations take place; procedures for connecting and disconnecting piping, hoses, and connections; ignition sources; and procedures for monitoring the loading and unloading operations.

(3) Identify and implement appropriate pre-transfer procedures, including pre-transfer inspections of the transport unit, packaging, transfer area, and piping, hoses, or other connections are free of defects, leaks, or other problems that could result in an unsafe condition.

(4) Identify and implement appropriate transfer procedures;

(5) Identify and implement appropriate emergency procedures, including identification of emergency response equipment and individuals authorized in its use; incident response; use of emergency shut-down systems; and emergency communication and spill reporting.

In addition, we remind entities that offer for transportation or transport acetylene cylinders that their employees must be trained. In accordance with the requirements in Subpart H of Part 172 of the HMR, persons who directly affect hazardous materials transportation safety must complete training that covers the following:

1. *General awareness training* designed to familiarize each employee with the requirements of the HMR and to enable each employee to recognize and identify hazardous materials.

2. *Function-specific training* designed to ensure that each employee understands how he is to perform the functions or operations for which he is responsible. Training for employees responsible for loading or unloading operations should include training on established procedures applicable to such operations, as well as national consensus standards that have been incorporated into such procedures.

3. *Safety training* concerning emergency response information applicable to the specific hazardous material(s) handled, measures to protect the employee from the hazards associated with the materials to which the employee may be exposed in the work place, and methods and procedures for avoiding incidents.

4. *Security training* that provides an awareness of the security risks associated with hazardous materials transportation and methods to enhance transportation security.

We believe that the procedures outlined above, including those contained in the CGA and NFPA standards, combined with a rigorous training program, will ensure that persons responsible for filling, operating, and discharging MATs have the knowledge and information to enable them to conduct these operations safely. We urge shippers and carriers engaged in these operations to evaluate their current operations, review the national consensus standards, and make adjustments in procedures and practices where necessary to minimize the safety risks associated with the transportation of acetylene on MATs.

VI. Enhanced Safety Program for Mobile Acetylene Trailers

We plan to work with acetylene shippers and carriers, emergency responders, associations such as CGA and NFPA, government agencies concerned with the safe handling and use of acetylene, and other stakeholders to assess the effectiveness of current

safety procedures used for filling, operating, and discharging MATs to determine whether additional safety procedures should be implemented. To this end, we request that persons who use such transportation systems to provide us with information on the effectiveness of the current DOT regulations, consensus standards, and industry best practices. We are also interested in any other procedures utilized to ensure that operations related to the transportation of acetylene on MATs are performed safely.

We would also like to work with shippers, carriers, and facilities that receive shipments of acetylene in MATs to develop and implement a pilot program to test the effectiveness of current or alternative procedures or methods designed to enhance the safety of transportation operations involving acetylene on MATs. As part of this program, we will assist individual companies or facilities to evaluate the effectiveness of their current procedures and to identify additional measures that should be implemented. We welcome suggestions concerning how such a program should be structured and the entities that should participate.

To ensure that our message reaches all stakeholders affected by these risks, we plan to communicate this advisory through our public affairs notification and outreach processes. For additional visibility, we have made this advisory available on the PHMSA homepage at *http://www.phmsa.dot.gov* and the DOT electronic docket site at *http://dms.dot.gov*. In addition, if you are aware of other companies that are involved in the charging, operating, and discharging MATs, please share this advisory notice with them and, if possible, identify them in your correspondence with this agency. We believe a collaborative effort involving an integrated and cooperative approach will help us to address safety risks, reduce incidents, enhance safety, and protect the public.

Issued in Washington, DC on August 30, 2007.

Theodore L. Willke,

Associate Administrator for Hazardous Materials Safety.

[FR Doc. 07–4355 Filed 9–5–07; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA–2004–19856]

Pipeline Safety: Updated Notification of the Susceptibility to Premature Brittle-Like Cracking of Older Plastic Pipe

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION: Notice; Issuance of Advisory Bulletin.

SUMMARY: PHMSA is issuing this updated advisory bulletin to owners and operators of natural gas pipeline distribution systems concerning the susceptibility of older plastic pipe to premature brittle-like cracking. PHMSA previously issued three advisory bulletins on this subject: Two on March 11, 1999 and one on November 26, 2002. This advisory bulletin expands on the information provided in the three prior bulletins by listing two additional pipe materials with poor performance histories relative to brittle-like cracking and by updating pipeline owners and operators on the ongoing voluntary efforts to collect and analyze data on plastic pipe performance. Owners and operators of natural gas pipeline distribution systems are encouraged to review the three previous advisory bulletins in their entirety.

FOR FURTHER INFORMATION CONTACT: Richard Sanders at (405) 954–7214, or by e-mail at *richard.sanders@dot.gov.*

SUPPLEMENTARY INFORMATION:

I. National Transportation Safety Board (NTSB) Investigation

On April 23, 1998, the National Transportation Safety Board (NTSB) issued its Special Investigation Report, *Brittle-Like Cracking in Plastic Pipe for Gas Service,* NTSB/SIR–98/01. The report described the results of the NTSB's special investigation of polyethylene gas service pipe, which addressed three major safety issues: (1) Vulnerability of plastic piping to premature failures due to brittle-like cracking; (2) adequacy of available guidance relating to the installation and protection of plastic piping connections to steel mains; and, (3) effectiveness of performance monitoring of plastic pipeline systems to detect unacceptable performance in piping systems.

(1) *Vulnerability of plastic piping to premature failures due to brittle-like cracking:* The NTSB found that failures in polyethylene pipe in actual service are frequently brittle-like, slit failures, not ductile failures. It concluded the number and similarity of plastic pipe accident and non-accident failures indicate past standards used to rate the long-term strength of plastic pipe may have overrated the strength and resistance to brittle-like cracking for much of the plastic pipe manufactured and used for gas service from the 1960s through the early 1980s. The NTSB also concluded any potential public safety hazards from these failures are likely to be limited to locations where stress intensification exists. The NTSB went on to state that more durable modern plastic piping materials and better strength testing have made the strength ratings of modern plastic piping more reliable.

(2) *Adequacy of available guidance relating to the installation and protection of plastic piping connections to steel mains:* The NTSB concluded that gas pipeline operators had insufficient notification of the brittle-like failure potential for plastic pipe manufactured and used for gas service from the 1960s to the early 1980s. The NTSB also concluded this may not have allowed companies to implement adequate surveillance and replacement programs for older plastic piping. The NTSB explained the Gas Research Institute (GRI) developed a significant amount of data on older plastic pipe but the data was published in codified terms making it insufficient for use by pipeline system operators. The NTSB recommended that manufacturers of resin and pipe, industry trade groups and the Federal government do more to alert pipeline operators to the role played by stress intensification from external forces in the premature failure of plastic pipe due to brittle-like cracking.

(3) *Effectiveness of performance monitoring of plastic pipeline systems as a way of detecting unacceptable performance in piping systems:* The NTSB's analysis noted that Federal regulations require pipeline operators to have an ongoing program to monitor the performance of their pipeline systems. However, the NTSB investigation revealed some gas pipeline operators' performance monitoring programs did not effectively collect and analyze data to determine the extent of possible hazards associated with plastic pipeline systems. The NTSB pointed out, ''such a program must be adequate to detect trends as well as to identify localized problem areas, and it must be able to relate poor performance to specific factors such as plastic piping brands, dates of manufacture (or installation dates), and failure conditions.''