

## Alert Notice

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**Alert Notice #:** ALN-91-02    **File Code:** ALN

**Date:** 10/11/91

**CFR Reference(s):**

**Keyword(s):** Iron, Cast, NTSB

**Subject:**

NTSB Recommendation S P-91-12, 07/90 Allentown, PA: replacement of cast-iron piping. RSPA/gas operators should have a program to identify/replace cast iron systems that threaten public safety. AGA recently sent materials to cast iron operators to assist their program.



US Department of Transportation  
Research and Special Programs Administration

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## **PIPELINE SAFETY ALERT NOTICE**

**Alert Notice: ALN-91-02**

**Date: 10/11/91**

**To:** Each Owner or Operator of a Gas Pipeline Facility and Every State Pipeline Safety Representative

**Subject:**

**Purpose:**

NTSB recently issued recommendation P-91-12 related to the August 1990 explosion and fire in Allentown, PA, caused by a crack in a 4-inch cast iron gas main. Recommendation P-91-12 states:

**Notice:**

**Background:**

NTSB recently issued recommendation P-91-12 related to the August 1990 explosion and fire in Allentown, PA, caused by a crack in a 4-inch cast iron gas main. Recommendation P-91-12 states:

Require each gas operator to implement a program, based on factors such as age, pipe diameter, operating pressure, soil corrosiveness, existing graphitic damage, leak history, burial depth, and external loading, to identify and replace in a planned, timely manner cast iron piping systems that may threaten public safety.

RSPA is equally concerned that each gas pipeline operator have a program to identify and replace those cast iron piping systems that may threaten public safety.

The American Gas Association (AGA) has recently sent material that has been developed by the Gas Piping Technology Committee (GPTC) to all pipeline distribution operators with cast iron pipe to assist them in developing procedures for determining the serviceability of the cast iron pipe and to identify the cast iron pipe segments that may need replacement. This GPTC material identifies all of the same factors set forth in the NTSB recommendation that should be considered in a cast iron pipe replacement program. RSPA supports the use of these factors in

determining the cast iron pipe segments that may need replacement. If an operator has cast iron pipe and has not received the material, contact either Larry Ingels (703/804-8454) or John Erickson (703/841-8612) of AGA and request the information.

Operators should be aware that computer programs are commercially available that can be used to develop a systematic replacement program for cast iron pipe. One of these programs is the Cast-Iron Maintenance Optimization System (CIMOS) developed through research sponsored by the Gas Research Institute.

Current pipeline safety regulations require that cast iron pipe on which general graphitization is found to a degree where a fracture might result, must be replaced. In addition, the regulations require that cast iron pipe that is excavated must be protected against damage. An operator's compliance with these requirements can be enhanced by incorporating all of the operator's cast iron responsibilities in an effective cast iron program that is designed to identify and replace cast iron pipe that may threaten the public.

**George W. Tenley, Associate Administrator, Office of Pipeline Safety**