

caused by dynamiting on this same construction project. Contributing to the excessive weight of the dynamite charges was the failure by the sewer contractor to observe fully the State blasting regulations. Contributing to the explosion and fire was the lack of a specific preplanned emergency procedure for leaks. Contributing to the delay in extinguishing the fire was the failure to isolate rapidly the failed section of pipe.

VI. RECOMMENDATIONS

The National Transportation Safety Board recommends that:

1. The Office of Pipeline Safety of the Department of Transportation issue regulations to require that pipeline operators have definite procedures to protect their facilities affected by blasting operations. These regulations should consider, at a minimum, the age of the pipeline, the operating pressure, the type of weld or mechanical joint, the general condition of the facility, the type of soil, and the area geography. (Recommendation No. P-74-1)
2. The American Society of Mechanical Engineers Gas Piping Standards Committee develop guidelines for use by pipeline operators to protect pipeline facilities affected by blasting operations. (Recommendation No. P-74-2)
3. The Municipal Authority of the Borough of Coopersburg, the National League of Cities, the National Association of Counties, and the U. S. Conference of Mayors:
 - (a) Initiate more comprehensive and more controlling inspection procedures on construction projects to insure that all work is performed safely and correctly as detailed in construction plans and specifications, particularly where blasting is involved. (Recommendation No. P-74-3)
 - (b) Conduct comprehensive and detailed preconstruction meetings for all projects to explain the full scope, timing, and critical or hazardous elements involved. At these meetings, the contractor and the affected utility companies should be instructed to work closely with each other and with any Government representatives on the jobsite. (Recommendation No. P-74-4)
 - (c) Insure that any utility company affected by construction have a preplanned emergency procedure which is understood by all parties and which can be carried out expeditiously. (Recommendation No. P-74-5)

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- (d) Use a qualified inspector on each Government job, who will be at the jobsite at all times during construction. (Recommendation No. P-74-6)

4. The UGI Corporation:

- (a) Initiate more controlling inspection procedures on construction projects in the vicinity of all gas facilities. Where these projects involve blasting, the UGI inspector should observe the shot hole loadings and obtain a copy of the blaster's "diary" for UGI records. (Recommendation P-74-7)
- (b) Initiate specific preplanned emergency procedures for use when construction projects are in proximity to gas facilities. Such procedures should include the use of preselected and prelocated valves which can be closed immediately in the event of a gas lead. (Recommendation No. P-74-8)
- (c) Develop liaison, before and during construction, with the contractor and other parties affected by construction. As part of this liaison, UGI should fully inform the contractor and the other parties of emergency procedures and should be fully informed of the daily progress of construction. (Recommendation No. P-74-9)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

/s/ FRANCIS H. McADAMS
Member

/s/ LOUIS M. THAYER
Member

/s/ ISABEL A. BURGESS
Member

February 7, 1974

John H. Reed, Chairman, and William R. Haley, Member, were absent, and did not participate in the adoption of this report.