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UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

FOR RELEASE ON DELIVERY
Expected at 10:00 a.m.
Tuesday, March 13, 1984

STATEMENT OF
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BEFORE THE
SUBCOMMITTEE ON FOSSIL AND SYNTHETIC FUELS
COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES
ON
GAO'S REVIEW OF THE DEPARTMENT OF TRANSPORTATION'S
PIPELINE SAFETY PROGRAM

Mr. Chairman and Members of the Subcommittee

We welcome the opportunity to be here today to discuss the results of our review that you had requested of the Department of Transportation's program to regulate and enforce pipeline safety. My testimony is based on our draft report which was submitted on February 6, 1984, to the Department for its review and comment. Pending consideration of agency comments and their incorporation in the report, our review findings should be considered preliminary.



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At your request, I will also provide our views on Congressman Vento's bill (H.R. 3314) that would require additional testing and inspection of gas and hazardous liquids pipelines and comment on the Department's fiscal year 1985 budget request for the pipeline safety program.

The Department of Transportation administers the federal pipeline safety program using authority contained in the Natural Gas Pipeline Safety Act of 1968, as amended, and the Hazardous Liquid Pipeline Safety Act of 1979, as amended. This legislation makes the Department responsible for establishing and enforcing safety standards for both interstate and intrastate pipelines. States may assume responsibility for enforcing the safety standards for all or a portion of the intrastate pipelines located within their borders. Some states, acting as agents of the Department, also have been inspecting interstate pipelines. The states' participation in the program is strictly voluntary but participating states can obtain federal reimbursements for up to 50 percent of the costs incurred operating their programs.

The Department is responsible for (1) enforcing the standards (inspecting) for those pipelines the states do not assume responsibility for and (2) monitoring the participating states to ensure that these states are adequately enforcing the federal safety standards. In 1983, Alaska and South Dakota were the only states that did not have a pipeline safety program. However, as of December 31, 1982, there were 32 states that had assumed jurisdiction over some but not all of the various types of intrastate gas operators that existed in those states. For example, California

had not accepted responsibility for municipal, master meter, and liquefied petroleum gas systems.

We found that the Department has not provided adequate inspection coverage of the interstate and intrastate pipeline operators for which it has responsibility. In addition, the Department's inspection coverage may be reduced further because most states indicated that they do not plan to assume responsibility for (1) the intrastate gas pipelines for which the Department is now responsible or (2) the intrastate hazardous liquids pipelines in their states when the federal safety standards are amended to cover these pipelines sometime later this year. A few states also indicated they are thinking of discontinuing all or a portion of their existing inspection activities, in which case the Department would have to pick up the responsibility. If this happens, there seems to be no doubt that the Department's inspection workload will increase.

The Department is also responsible for ensuring that participating state agencies are adequately enforcing the federal safety standards. However, since the states' participation is strictly voluntary, the Department does not have viable means for requiring the states to correct deficiencies in their programs and/or assume responsibility for additional intrastate pipeline systems. Therefore, we believe a need exists to align the Department's program responsibilities for regulating and enforcing pipeline safety, particularly with regard to intrastate pipelines, with the authority and resources needed to effectively carry out those responsibilities.

We also found areas where the Department can improve both its own inspection program and its evaluations and management of the states' programs using its existing resources.

PIPELINE SAFETY

Gas and hazardous liquids pipelines in the United States total about one and three-quarter million miles and transport more than one-half of the Nation's energy supply. While statistics indicate that pipeline transportation is relatively safe when compared to other modes of transportation, a number of the pipeline failures which occur each year do result in deaths, serious injuries, and considerable property and environmental damage. For example, the 1,711 gas pipeline failures reported to the Department in 1982 (excludes telephone reports) resulted in 31 fatalities and 266 injuries. The 200 hazardous liquids pipeline failures reported resulted in 6 injuries, an estimated commodity loss of 221,411 barrels, and property damage of \$1.5 million.

The Research and Special Program Administration's Materials Transportation Bureau is responsible for administering the Department's gas and hazardous liquids pipeline safety programs. For fiscal year 1984, the Department allotted the Bureau 45 of the 48 positions authorized by the Congress. Program funding amounts to \$7,464,000 for pipeline safety. This includes \$3.5 million for grants-in-aid to participating state agencies.

FEDERAL INSPECTION PROGRAM CAN BE IMPROVED

The Department has not had enough inspectors to meet its goal of performing an annual comprehensive inspection of each pipeline operator in its workload inventory.

While we did not evaluate the reasonableness of the goal, we believe that the Department has not provided adequate inspection coverage of all pipeline operators under its jurisdiction. The inspection personnel assigned to the Department's five regional offices, 16 as of December 31, 1983, are responsible for inspecting about 360 interstate gas and hazardous liquids pipeline operators, 290 intrastate gas pipeline operators, and 16 liquefied natural gas facilities. Our analysis of inspection records showed that 24 percent of the pipeline operators received comprehensive inspections in 1981 and 17 percent in 1982. Some operators had been inspected only once every 3 to 5 years. In addition, some types of intrastate gas operators (master meter and liquefied petroleum gas) have not been included in the Department's workload inventory and are inspected only when a complaint is received, an accident occurs, or a specific request is made.

Acknowledging the Department's limited pipeline inspection resources, we believe inspection coverage of the pipeline operators under federal jurisdiction could be enhanced by:

--requiring, if feasible, each interstate pipeline operator to maintain a quality assurance program that addresses the federal safety standards. While the Department's inspectors would still need to spot check the operators' quality assurance programs to determine their reliability, such programs would help reduce the amount of time needed to perform an inspection. We did not determine the cost of establishing and operating quality assurance programs, however, and a cost-benefit evaluation should be made before requiring such programs.

--improving the Department's inspection records and reports to provide management more data on inspection workload and the extent of inspection coverage being provided. Agency officials need such data to make the most effective use of available staff and funds. Existing workload data does not include (1) many of the small intrastate gas operators that the Department is responsible for inspecting, and (2) a breakout of the large interstate operators into common inspection units or segments--e.g., districts. One operator may have several pipelines, constructed at different times, carrying different commodities, and transversing a half dozen or more states but the Department considers this to be one inspection unit, just the same as another operator whose system consists of one line, one commodity, and operates in 1 or 2 states. The inspection activity data being reported also does not differentiate between the various types of inspections, such as comprehensive inspections, followups on prior inspections, and inspections of new pipeline construction.

DEPARTMENT'S MONITORING OF STATE
PROGRAMS COULD BE IMPROVED

The Department is responsible for ensuring that the states' pipeline safety programs are adequate to assure operator compliance with the federal safety standards. In carrying out this responsibility, the Department (1) requires the states to maintain and report certain data on their inspection workload and activities and (2) performs an annual evaluation of each state agency. The annual evaluations are based primarily on onsite monitoring

visits which include a review of the state agency's inspection records, a discussion of the program with state program personnel, and accompanying a state inspector on an inspection of a pipeline operator. In reviewing the Department's guidelines for state participation in the program and its annual evaluations of the states' programs, we found:

- Some important program elements, which the Department needs to consider in determining the adequacy of a state's program, either have not been adequately defined or need to be updated. For example, the Department has not established minimum training requirements for state inspectors or adequately defined the criteria needed to determine whether state inspectors are qualified. Also, the workload factors used to determine the minimum number of staff days the states should spend inspecting pipeline operators need to be updated to reflect changes to the states' inspection workload.
- The annual monitoring visits should include more and better ways of evaluating a state agency's performance. For example, in determining the adequacy of a state's inspection coverage, the Department should determine how many of the pipeline operators under the state agency's jurisdiction were inspected during the year and whether or not the inspections were comprehensive.
- The Department's reviews of state inspection workload and activity data have not been sufficient to detect errors and inconsistencies in the data. This data, which includes

such information as the amount of time the state inspectors spend inspecting pipeline operators and the number of violations of the safety standards the state found during the year, is used by the Department in its evaluation of the state programs.

FEDERAL RESPONSIBILITIES NEED TO BE
ALIGNED WITH THE DEPARTMENT'S AUTHORITY
AND STAFFING

The Department does not have adequate program authority and resources to carry out its current program responsibilities. Since the states' participation is voluntary, the Department does not have a viable means of requiring the states to correct deficiencies in their programs and/or assume responsibility for additional intrastate pipeline systems. Furthermore, possible future increases in the Department's inspection workload may cause further deterioration in its already limited inspection coverage.

As previously mentioned, the Department has not provided adequate inspection coverage of all pipelines for which it has been responsible, including the intrastate gas pipelines, and this problem may worsen. Although the states have assumed responsibility for most intrastate gas pipelines, there still are a large number of intrastate operators (including 255 municipals and an estimated 27,400 master meters) under the Department's jurisdiction and this situation is likely to continue for some time. In addition, as of June 1983, 17 of the 39 states with intrastate hazardous liquids pipelines did not have the state legislation necessary to assume jurisdiction over these pipelines. They also had indicated that they are not interested in assuming this

responsibility when the federal safety standards are amended to include the intrastate hazardous liquids pipelines later this year. Of the remaining 22 states, 14 had the necessary state legislation and 8 were requesting it.

While a few states have expanded their gas pipeline safety inspection programs in recent years, 15 states experiencing staffing and/or funding constraints have already reduced or are planning to reduce their inspection activities. Another 4 states have said that they may consider dropping out of the program. To the extent the states drop out of the existing gas program and do not accept the new hazardous liquids program responsibility, the Department will have to take on this additional inspection workload involving intrastate operators.

The Department also lacks the leverage needed to require increases and improvements to state agency programs. It has had moderate success in getting states to make program changes as a result of their state agency evaluations. But, the Department can do little to require a state to implement recommended changes if the state is unable or does not want to do so. If a state is not satisfactorily carrying out a safety program, the Department may (1) withdraw the state's certification and assume jurisdiction over all the state's operators or (2) withhold grant-in-aid funds. In a case where grant-in-aid funds are withheld and the state's inspection activity seriously decreases, the Department in turn might have to withdraw the state's certification and assume jurisdiction over all the state's operators. This would place a further demand on the Department's already limited resources.

Considering the Department's present inspection workload, possible future increases in its workload, and its lack of program authority, we believe that the Department, with input from the states, should consider changes to the present program in terms of its responsibilities and/or its funding and staffing levels.

CONGRESSMAN VENTO'S BILL

Congressman Bruce Vento's bill (H.R. 3314) would amend the Hazardous Liquid Pipeline Safety Act of 1979 and the Natural Gas Pipeline Safety Act of 1968 to require periodic testing of pipelines by their owners no less frequently than every 5 years. The Department of Transportation would be required to oversee the testing and would have the discretion to require certain pipelines to undergo more frequent testing. Congressman Vento's concern is that current legislation does not require testing the overall structural integrity of pipelines so that defective sections of a line can be detected and repaired or replaced before they leak.

The current federal pipeline safety standards do not require periodic testing that would detect certain structural integrity defects, such as corrosion damage, before leaks occur and we agree that this would be desirable. However, it may be premature to implement such a requirement at this time. Based on the information we obtained during our review, there appears to be several factors that need to be resolved before requiring the types of periodic testing envisioned. These factors include the capabilities of existing tests and testing equipment to detect the structural defects in question, the operators' costs that would be involved in conducting the tests, and availability of the resources the Department would need to oversee the operator tests.

The American Gas Association has been sponsoring research to develop the types of testing we believe the Congressman's bill envisions. Therefore, the Subcommittee might ask the Association to provide its views on both the technical problems involved in implementing the testing requirements called for in the bill and what it would cost the operators to comply with such requirements.

As I previously mentioned, our review showed that the Department's pipeline inspection activity has not had sufficient resources to adequately carry out the program responsibilities assigned to it in the current program legislation and the inspection workload is likely to increase. Therefore, any new responsibility given to the Department's inspection staff at this time would further compound this problem. However, we are proposing that the Department determine the feasibility of requiring interstate pipeline operators to maintain quality assurance programs. If the Department were to require operator quality assurance programs, it could then incorporate a structural integrity testing requirement, as a part of these programs, as soon as it determines that the technology is adequate and testing costs are reasonable.

PIPELINE SAFETY PROGRAM BUDGET
FOR FISCAL YEAR 1985

The Department's pipeline safety program budget request for fiscal year 1985 is substantially the same as it was for fiscal year 1984--48 positions and \$7,483,000 for 1985 as compared to 48 positions and \$7,464,000 for 1984. The amounts requested for pipeline safety technology and research (\$645,000) and grants-in-aid to participating state agencies (\$3,500,000) are the same as

appropriated for 1984. The \$3,338,000 requested for program operations is \$19,000 more than the amount appropriated for 1984.

The fiscal year 1985 budget does not request the additional inspectors the Department needs to provide adequate inspection coverage of the pipelines that it is now responsible for or those pipelines which will be added when the federal safety standards are amended to include intrastate hazardous liquids pipelines.

The program operations funds being requested include additional funds for maintaining and operating the agency's automated pipeline safety data systems (\$30,000) and for salaries and administrative expenses, such as agency personnel within grade increases, promotions, and travel (\$41,000) and a reduction in the funds requested for training (\$52,000). The reduction in training funds is predicated on the establishment of tuition charges for non-agency personnel attending pipeline safety training courses provided by the Department's Transportation Safety Institute. In our review, we found that many states already restrict out-of-state travel for training purposes because of budget constraints. Therefore, the initiation of a tuition charge for state personnel is likely to compound this problem.

The \$3.5 million requested for grants-in-aid for fiscal year 1985 is the same as the amounts appropriated for fiscal years 1983 and 1984 and does not include any funds for the federal-state cooperative program for intrastate hazardous liquids pipelines which is to be implemented later this year. The Department estimates that the states will be reimbursed for 37 percent of their total program expenditures for calendar year 1983. If the states'

pipeline safety program expenditures increase, as they have in past years, the percentage of state program costs funded by federal reimbursements will decrease in 1984 and 1985. As I stated earlier, states experiencing staffing and funding constraints have indicated they may reduce their inspection activity and several states could drop out of the program.

Mr. Chairman this concludes my testimony. We will be pleased to answer any questions that you might have.

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