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STATEMENT OF

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RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

BEFORE THE

SUBCOMMITTEE ON CHILDREN, FAMILY, DRUGS AND ALCOHOLISM

COMMITTEE ON LABOR AND HUMAN RESOURCES

UNITED STATES SENATE

ON

THE DEPARTMENT OF TRANSPORTATION'S

PIPELINE SAFETY PROGRAM

Madam Chairwoman and Members of the Subcommittee:

We welcome the opportunity to be here today to discuss our report--Need to Assess Federal Role in Regulating and Enforcing Pipeline Safety (GAO/RCED-84-102, dated July 10, 1984). My testimony is based on our report which was done at the request of the Subcommittee on Fossil and Synthetic Fuels, House Committee on Energy and Commerce. Our review generally covered program activities for calendar years 1978-82. As agreed with your office we did not update the information in our report, except that in April 1985 the Department provided us the status of its actions in response to our recommendations which are included in attachment I. This month the Department told us that it has not finalized its response to our recommendations.

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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 carryout 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.

This concludes my testimony. I will be pleased to answer any questions that you might have.

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This concludes my testimony. I will be pleased to answer any questions that you might have.

STATUS OF RECOMMENDATIONS, AGENCY COMMENTS
AND ACTIONS TAKEN FROM OUR PRIOR REPORT

In April 1985, the Department provided us the following information on the status of the actions it has taken in response to our recommendations.

RECOMMENDATION

We recommend that the Secretary of Transportation direct the Administrator, RSPA, to develop and present to the congressional oversight and appropriations committees, alternatives to redefine the federal role and responsibilities for assuring the safety of intrastate pipelines, including the hazardous liquids pipelines. These alternatives should propose different combinations of responsibilities for intrastate operators not currently under a state's jurisdiction as well as defining the federal responsibility for assessing state agency programs. Each alternative proposed should include (1) the role and responsibility of both the Department and the state agencies; (2) a discussion of the safety risks associated with the alternatives; and (3) the identification of any legislative changes associated with each alternative. Each of the alternatives presented should also include (1) estimates of the staffing and funding levels RSPA and the states would need to carry out those function which would be their responsibility and (2) analysis of the impact each alternative would have on inspection activity.

Agency comments and actions taken

The Department agreed with this recommendation; it has begun a study of the federal and state pipeline safety roles and

anticipates completing it in October 1985. On the basis of our discussion with the Department official responsible for the study, it will

- discuss financial alternatives to maintain or obtain state participation in the program,
- analyze the impact of each alternative on inspection activity and provide information on general staffing and funding needs, including types of funding mechanisms as they apply to each alternative (e.g., user fees), and
- identify any needed legislative changes.

Because the study is still in its formative stages, we are not able to provide specific comments at this time. However, on the basis of our discussions with Department officials, we believe that the study, if carried out as planned, has the potential to identify last year's hearings.

RECOMMENDATION

Acknowledging the Department's limited pipeline inspection resources, we believe inspection coverage of the pipeline operators under federal jurisdiction could be enhanced. Thus, we recommended that the Secretary of Transportation direct the Administrator, RSPA, to take the following measures:

- Evaluate and, if the benefits of having pipeline operators establish a quality assurance program outweigh the cost, implement a mandatory quality assurance program for interstate pipeline operators.

- Complete and update its inspection workload inventory by dividing all interstate gas and liquid operators into common inspection units, and include the master meter and liquefied petroleum (LP) gas operators that are under its jurisdiction.

Agency comments and actions taken

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- Complete and update its inspection workload inventory by dividing all interstate gas and liquid operators into common inspection units, and include the master meter and liquefied petroleum (LP) gas operators that are under its jurisdiction.
- Require MTB's regions to expand and refine the inspection workload and activity data inventory they maintain and report to headquarters for each category of operator, the number of inspection units subject to inspection and the number of units that have been inspected one or more times during the year, and a breakout of the number of inspections performed by type of inspection.

Agency comments and actions taken

In responding to OMB Circular No. A-50, the Department stated that it is evaluating the concept of a mandatory quality assurance program for interstate pipeline operators. In a March 26, 1985, memorandum to us, the Department indicated its regional offices had divided operators into common inspection units as of January 1, 1985. The Department has also asked states to divide

operators into common units. The Department informed us that the revised monthly report from the regions to headquarters was instituted January 1985. It includes inspection data. The Department has also stated that master meter and liquefied petroleum (LP) gas operators will be included in its overall review of the program.

RECOMMENDATION

Our report recommended that the Secretary of Transportation direct the Administrator, RSPA, to improve state agency inspection activity reporting and MTB's monitoring of state agency pipeline safety programs by

- using more performance-oriented measures to evaluate state agency actions in enforcing federal pipeline safety standards, which would include revising the monitoring form to eliminate irrelevant questions, redesigning other questions to provide more meaningful data, and developing additional questions to evaluate state program performance;
- providing the regional offices with additional guidance to assure consistent interpretations of the questions on the monitoring form;
- updating criteria used to determine the minimum level of state inspection activity or establishing new criteria for this purpose;
- clarifying instructions provided for data collection and reporting by state agencies, particularly for data on inspection days, operators inspected, noncompliances, and enforcement actions; and

- having the regional offices (1) review and advise headquarters as to the probable accuracy of the program activity data at the time the state agencies submit such data and (2) devote more time to verifying the accuracy of these data during their annual monitoring visits.

Our report also recommended that the Secretary of Transportation direct the Administrator, RSPA, to better define state inspector qualifications and training requirements and assist the states in obtaining the needed inspector training by

- identifying what knowledge and skills are necessary to conduct effective inspections of operators;
- determining what training the states' inspection workforce needs to conduct effective inspections; and
- working with the states to determine the most efficient and effective way for all state inspectors to obtain the identified training needs within a reasonable time period.

Agency comments and actions taken

In responding to OMB Circular No. A-50, and in its March 26, 1985, memorandum the Department stated that MTB (1) has redesigned its state monitoring form and it is being used to monitor calendar year 1984 state programs; (2) has provided regional offices with guidance to assure consistent evaluations of program adequacy during monitoring; (3) reviewed and updated criteria for the minimum level of state inspection activity; (4) issued new instructions to states for data collection relating to inspection days, operators inspected, noncompliances, and enforcement

actions; and (5) will have the regional offices verify the accuracy of state program activity data during their state monitoring visits.

The Department stated that the qualifications which a state inspector should possess will be made known to each state agency by MTB staff during annual monitoring visits and during annual meetings with the staff of each state agency on a regional basis.

The Department stated that the MTB will generally require attendance at all pipeline safety courses for each state pipeline safety inspector within a 3-year period from start of employment as an inspector.

RECOMMENDATIONS

Our report recommended that the Secretary instruct the Administrator, RSPA, to

- gather and analyze the data necessary to determine whether there are sufficient hazards, involving personal injury or environmental damage, to warrant regulation of rural gas gathering lines, gas service lines, hazardous liquids storage facilities, and substances transported in liquefied form that are not presently regulated and
- take appropriate actions to amend the regulations and, in the case of rural gas gathering lines and/or gas service lines, propose the legislation needed to provide coverage of those additional pipeline facilities that warrant coverage.

Agency comments and actions taken

In responding to OMB Circular No. A-50, the Department stated that the issues of regulatory coverage and the relative roles of each level of government will be best addressed in its overall review of the program. In addition, the Department stated that it will also initiate a study in fiscal year 1985 on the safety performance of hazardous liquid storage facilities that are associated with pipeline transport.

The Department has initiated a study of the risk of all hazardous liquid pipeline terminal storage. The study is expected to be completed in calendar year 1985. The Department is aware of only one unregulated substance transported an appreciable distance--liquefied carbon dioxide. The Department will be collecting information on liquefied carbon dioxide and other substances to determine if they should be studied.

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