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BEFORE THE
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

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Good afternoon Mr. Chairman, and members of the Subcommittee. I am pleased to appear before you today to testify on behalf of Secretary Peña and the Department of Transportation concerning important issues arising out of the Colonial Pipeline Company spill of diesel fuel on March 28, 1993, into Sugarland Run in Fairfax County, Virginia. Appearing with me is George W. Tenley, Jr., Associate Administrator for Pipeline Safety.

My testimony follows the format presented in the Subcommittee's letter requesting the Department's appearance.

I. Overview

The mission of the pipeline safety program of the Research and Special Programs Administration (RSPA), administered by RSPA's Office of Pipeline Safety (OPS), is "To protect the people and the environment of the United States through a comprehensive pipeline safety program that includes effective risk management, thorough pipeline operator compliance, high quality training and a strong, balanced federal state partnership."

Our oversight responsibility covers transportation by pipeline of

natural gas to 55 million residential and commercial customers, and transportation of 25 percent of the nation's intercity freight, consisting of over 605 billion ton miles annually of petroleum and other materials.

Our goal continues to be assuring the highest level of public safety and environmental protection at a cost commensurate with real risk. Our primary strategy is emphasizing prevention of accidents and spills by stringent design and construction standards, operational practices which maintain pipeline integrity, adequate monitoring and leak detection systems, and emergency response procedures that mitigate consequences to the maximum degree practicable. The Colonial incident demonstrates the value of new construction inspections. If we had been able to be on scene in 1980 at the time the Colonial 36 inch line was constructed, we could have assured that our construction standards had been properly followed and we would have a better understanding today as to the cause of the accident. However, with only two inspectors in 1980 for the entire Eastern Region, we could inspect only a very small number of new construction projects.

We face a number of challenges as the stewards of the pipeline program, including increased public, state, and Congressional demands for more safeguards; increased importance of environmental protection; an aging infrastructure; increasing

population development encroaching on pipeline rights-of-way; and financial pressures on the industry to control costs.

Historically, accidents like the recent Colonial spill in Fairfax County, Virginia, have given rise to increased pipeline safety legislation, as well as recommendations from the National Transportation Safety Board and the General Accounting Office. While these accidents have provided valuable lessons and led to improved standards and practices, RSPA believes that we must now focus our attention on the relative risks of all potential causes attributed to pipeline accidents and their probability of occurrence. RSPA believes strongly that more reliable data are needed to form the basis for credible decision making and risk management.

II. Program Operation

This is a time of transition for the pipeline safety program, as we work toward managing the program on the basis of comprehensive risk assessment and allocating resources to implement program priorities accordingly. The program has six areas of operational focus which are each increasingly risk-based in approach:

- 1) Through Data Analysis and Information Systems, we are attempting to make full use of available information systems technology to analyze and predict risk and set safety and

environmental priorities. We are redesigning outdated organizational structures and work processes, including decentralizing operations, reassessing inspection priorities, streamlining accident investigations and upgrading information systems.

2) Pipeline Research and Development primarily supports the development of regulations, compliance, and training. We are identifying new technologies which have a high potential for risk reduction and a positive cost benefit ratio; striving to identify high population density and environmentally sensitive geographic areas that require more stringent prevention measures; and finalizing development of a risk assessment model.

3) Through our Regulatory Program, we evaluate safety and environmental problems and develop regulations or alternatives to regulations that assure safety in the design, construction, operation, and maintenance of pipelines. We are prioritizing rulemakings and studies to assure prompt action on those with the potential for preventing the greatest risks with the least impact practicable on industry. Our criteria for prioritizing our work include accident statistics, trends, and system-wide problems that show up in more than one operator's facilities. Some alternatives to rulemaking include alert notices, advisory bulletins, technical assistance, and public education.

4) The foundation of the Compliance Program has been risk-based for several years, allowing RSPA to direct its inspection resources to those problem areas for which an accident would likely have significant consequences on public safety or the environment. We inspect all pipelines under Federal jurisdiction within a three to five year cycle and higher-risk pipelines more frequently. Once new regulations mandated by law become effective (e.g., low- stress hazardous liquid pipelines), the inventory of pipelines subject to Federal jurisdiction will increase about 50 percent.

Existing Federal resources alone will not adequately ensure the safe operation of pipeline facilities, given the size of the regulated community and the complexity of operations. State adoption and enforcement of Federal pipeline regulations under an annual certification program result in a uniform nationwide program. While the gas and hazardous liquid pipeline safety laws authorize grant funds to reimburse states up to 50 percent of the actual cost of state programs, appropriations for the last several years have permitted funding of approximately 35 percent for state gas programs, and 26 percent for state hazardous liquid programs. The allocation formula emphasizes state program performance. Our regional staff monitors and supports states in striving to improve their programs.

5) Training and Information Dissemination are critical to ensure

that state regulatory and compliance personnel better understand and apply pipeline regulations. RSPA provides comprehensive information, guidance, and direction through formal training and technical assistance provided by the Department's Transportation Safety Institute in Oklahoma City.

6) Emergency Response is an area where we are placing increased attention in the pipeline program. We are implementing new authority for the oversight of response planning by hazardous liquid operators mandated under the Oil Pollution Act of 1990 (OPA), and working to determine what information on pipeline locations and operations would facilitate the work of emergency and environmental planners at the Federal, state, and local levels of government. We are evaluating how to provide this information in a user-friendly form through geographic information systems. We promote and support the National Response System, mandated by the Comprehensive Environmental Response, Compensation, and Liability Act and the Clean Water Act, and the U. S. Coast Guard's National Response Center, which receives reports and initiates actions for the immediate response to incidents.

III. Report on the Status of the Colonial Spill Investigation and Monitoring of Other Pipelines in the Area

Last week, the NTSB released its metallurgical report covering

its analysis of the failed pipe involved in the Colonial spill. Our review of the Board's report leads us to conclude that the cause of the failure is mechanical damage. Neither OPS nor the Board is prepared at this time to conclude when the damage occurred.

At the present time, the 36-inch pipeline that ruptured is in service at a pressure of 50 percent of its maximum operating pressure (a service pressure of approximately 325 psi). This limitation was imposed on Colonial in an April 5, 1993 amendment to the Hazardous Facility Order RSPA issued to Colonial on March 30, 1993. In accordance with the Amended Order, Colonial submitted a plan for the internal inspection of the pipeline using an instrumented device, commonly referred to as a "smart pig." After an initial review of that plan, OPS requested additional information in order to evaluate the plan fully. Following a meeting between Colonial representatives and OPS engineers, the Company provided answers to all questions posed by OPS.

Since that time, OPS has met with companies that offer smart pig services to the pipeline industry to determine the proper device to run in the pipeline to find the type of conditions that existed on the failed pipeline (i.e., dents and gouges associated with mechanical damage). We will meet with Colonial representatives next week to finalize the plan. As provided in

the Amended Order, Colonial will not be allowed to operate above the 50 percent pressure limitation until the pig data indicate it is safe to do so, and any anomalies are repaired appropriately.

There are two other pipelines in the right-of-way through which the Colonial 36-inch line runs: a Colonial 32-inch petroleum products pipeline, and a Columbia Gas Transmission Company 20-inch natural gas pipeline. The 32-inch Colonial pipeline was excavated in the area of the failed 36-inch line, and, based on data from a pig run in 1987, one of two dents found was repaired with a full encirclement sleeve. The other dent was very shallow, had no gouges in it, and presented no concern as to the integrity of the line.

The Columbia Gas line is approximately 150 feet away from the Colonial 36-inch line and would not have been subject to damage from the rupture of the Colonial line. However, because of the third-party excavation that occurred in the area, Columbia is reviewing its records of inspections it conducted at the time of that excavation to determine if the line could have been damaged. OPS will monitor the results of Columbia's review.

IV. Secretarial Program Review

In the wake of the Colonial spill, Secretary Peña directed a review of the adequacy of the pipeline program in providing

environmental protection. This review will provide a basis for assessing and prioritizing proposed actions to deal with the risk to the environment posed by hazardous liquid pipelines. As we take actions to meet the RSPA environmental mission, these actions must be weighed in balance with actions necessary to meet our public safety mission. Determining the proper balance will be critical to assuring the delivery of a comprehensive pipeline safety and environmental program within available resources.

In accordance with the Secretary's direction, we are assessing programs which have the greatest potential to reduce risk, including regulatory actions, compliance initiatives, state programs, and implementation of OPA.

- o In the regulatory area, we are looking at the integrity of pipeline systems and the prevention or limitation of product loss. Specifically, in pending rulemakings we are considering hydrostatic testing, modification of pipelines to accept internal inspection devices, requirements for liquid operators to have damage prevention programs, and regulating low stress lines. In addition, the Pipeline Safety Act of 1992 contains a provision on the use of emergency flow restricting devices and leak detection systems, subjects having a potential and direct relevance to the Colonial spill.

- o In the compliance program, we are assessing means to reduce environmental risk through new areas of program emphasis. We are considering whether there is a need to redirect resources for more inspection time focused on liquid operators, new construction, and inspections in the field as opposed to headquarters facilities.

- o In state programs, we are evaluating the extent of state participation in the liquid program and assessing the potential for benefits from increased state involvement. Our focus is on determining how realistic it is to expect to enhance our field compliance presence and the number of pipelines inspected by leveraging state resources.

- o In the OPA program, we believe that there may be opportunities for risk reduction by reaching out to industry to collaborate in a national effort to map pipelines. We are also determining if there are ways to better support the area contingency planning efforts to set environmental priorities. In addition, attention can be placed on low-stress pipelines, which have previously been unregulated, in the early phases of review of response plans.

V. Addressing Mandates of the Pipeline Safety Act of 1992

In approaching implementation of the 14 rulemakings, several

studies, reports, and other actions mandated by the Pipeline Safety Act of 1992, RSPA has prioritized those initiatives that address the greatest risk or the shortest mandated timeline. Our FY 1994 budget reflects an increase of \$225,000 for studies to support regulatory development or possible alternatives to rulemaking and \$275,000 for research and development initiatives. Highest priority studies to support regulatory activity would address:

- o Installation by gas distribution operators of excess flow valves to mitigate the risk of explosion due to rupture of a gas service line;
- o Qualification and training of pipeline personnel to assure their ability to recognize and react to abnormal operating conditions;
- o Definition of "gathering lines" and "regulated gathering lines" for the purpose of bringing these previously unregulated gas and hazardous liquid pipelines under RSPA's regulations;
- o Identification of pipeline facilities located in environmentally sensitive areas and high-density population areas, and maintenance of related maps;

- o Inspection of underwater pipelines in shallow water outside the Gulf of Mexico, reporting on the proper abandonment of offshore pipelines, and the periodic inspection of all offshore pipelines that pose a threat; and
- o Prescription of circumstances under which emergency flow restricting devices and leak detection systems should be used on hazardous liquid pipelines.

Research and development studies to address reauthorization priorities would include a survey of the extent of replacement of cast iron pipelines and a study of local government codes and standards where customer-owned service lines are located. Federal regulations do not cover customer-owned lines downstream of the customer meter, although such lines are covered in some states.

VI. Conclusion

Based on decisions the Secretary will make in reviewing our environmental program, our priorities under the 1992 reauthorization may, in consultation with Congress, be revised and are contingent on the availability of funding requested in the FY 1994 budget.

To reduce the risk to public safety and the environment from pipelines, we must maximize the expertise available in government, industry, the environmental community, and academia. We must work together to understand emerging trends, solve safety and environmental problems, and set program priorities, based on real rather than perceived risk, within available resources.

Because the problems are large and complex, and the mitigating resources limited, we must, to the degree possible, end the historical, and adversarial, paradigm of the regulator versus the regulated. RSPA, the states, and the industry must strive to pursue the same goals. This approach does not negate, but appropriately directs, the need for a strong Federal and state presence stimulating industry performance and providing oversight of industry regulatory compliance.

Like the other witnesses testifying today, the Department of Transportation is very concerned about the Colonial spill and the issues it raises. We are prepared to take whatever practicable steps are necessary to lessen the risks posed by this indispensable mode of transportation, and to do so in concert with the Congress, the states, environmental groups, and the industry.

Thank you.