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BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION of the

SENATE COMMITTEE on COMMERCE, SCIENCE & TRANSPORTATION

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I'm very pleased to be here today to testify in support of reauthorization of the pipeline safety program of the Research and Special Programs Administration (RSPA). Appearing with me as witnesses are George Tenley, Associate Administrator for Pipeline Safety and Judith Kaleta, Chief Counsel. Since the agency last appeared before the Subcommittee in October, 1987, we have experienced many changes. We have evolved as an agency, both in responsibilities acquired through restructuring within the Department and in areas of oversight mandated through new legislation.

When I took the helm as Administrator of RSPA two years ago, I identified as my number one priority improvements to the pipeline safety program. I believed the program needed management change, a more aggressive inspection and enforcement program, new direction in our regulatory program, and additional resources to address these existing challenges and those on the near horizon. Today my purpose is to illustrate our vision of pipeline safety to meet the challenges ahead. Equally important, I want to demonstrate that we have taken action on many initiatives vital to pipeline safety and been responsive to environmental concerns. I believe that, to

a large extent, we have the authority and capacity to fulfill our vision.

My first action toward program improvement was bringing in George Tenley to head up the pipeline program, and, in my reorganization, elevated that job to the rank of Associate Administrator. As former Chief Counsel for RSPA, he has both experience and personal commitment to the program. To replace Mr. Tenley as Counsel, I recruited Judith Kaleta, who brings considerable breadth of experience from other Departmental positions and fresh talent for the tasks at hand. Together, we look forward to working with Congress to reauthorize the program, allowing us sufficient discretion to manage our agenda to fulfill our vision of pipeline safety with maximum success.

Our Vision of the Challenges

There are numerous issues looming on the immediate horizon for us to address in the management of pipeline safety. First, we are aware of significantly increased activity in construction of natural gas facilities, including Kern River, Mojave, Iroqois, and the Pacific Gas and Electric pipeline to Canada, all of which will transport large quantities of natural gas. Additionally, because the price of LNG has become more competitive, major base-load facilities that had been "mothballed" are coming back into operation. Our inspection requirements for getting this type of facility on line are highly specialized, and these facilities are subject to a separate set of regulations. Facilities at Cove Point, Maryland; Elba Island, Georgia; and the Trans Alaska Gas System

(TAGS) are all potential candidates for coming on line in the near future.

A major challenge ahead is the general aging of the pipeline infrastructure. Aging has the potential to cause leaking or rupture due to the compounding of various time-dependent effects. It has been estimated that there will be between 15,000 and 35,000 miles of gas and hazardous liquid pipelines requiring some type of upgrading in the next few years.

Further, there is an increasingly potential for hazards of commercial, industrial and residential development threatening to intrude on transmission lines that were constructed in undeveloped areas; such matters as zoning and location of pipelines are entirely a matter of local control. Populating these areas brings the increased risk of accidents from outside force damage. Development also increases the chances that more people will be living and working near the transmission lines, if rupture occurred.

An additional and critical challenge is determining the applications and benefits of new technologies, the degree to which the industry will adopt these technologies without Federal intervention, the degree to which we should require their use, establish necessary standards, and define the appropriate level of compliance. Leak detection, supervisory monitoring and data acquisition systems, advanced internal inspection devices, and underwater inspection methods are areas where innovative techniques offer many potential benefits.

What We See As Necessary for Reauthorization

I am committed to ensuring that the excellent safety record of pipeline transportation continues. Our reauthorization proposal provides clarified authority and resources to enable RSPA to address critical needs while allowing us the necessary discretion to pursue a safety agenda for both the near and long term. We must be able to manage the business of pipeline safety and take the initiative to set safety and environmental priorities. It is our intent to be more proactive in communicating our goals and agenda to the Congress; federal, state and local governments; industry; and the American public, all of whom have a stake in a credible pipeline safety program.

Some specific items that would help us to better administer our broad authority to enhance safety and the protection of life and property include: addressing environmental concerns as a basis for regulation and enforcement under the Hazardous Liquid Pipeline Safety Act (HLPSA); attaining authority to require that existing pipelines accommodate internal inspection devices in certain situations; increasing the maximum civil penalty amount assessed per day per violation from $10,000 to $25,000; recouping costs for preoperational monitoring and inspection by assessing costs directly against developers, rather than imposing the costs on existing, possibly competing facilities; and improving our administration of existing authorities through several technical amendments.

Views on Major Provisions of Proposed Legislation

I would like to comment on the bill, H.R. 1489, the Pipeline Safety Act of 1991, introduced in March by Congressman Sharp. The Department believes that the bill is unnecessary to carry out and improve an effective pipeline safety program. We do endorse the safety goals of the bill. The Department generally endorses the environmental goals of the bill with respect to hazardous liquids, so long as we are granted the discretion to assure the proper balance between safety and environmental protection. At this time, the Department believes there is no environmental risk associated with the transportation of natural gas by pipeline that cannot be addressed under the Department's current authority.

We have wo significant concerns about the bill in the rulemaking area. First, most of the provisions unnecessarily elevate to legislation many issues that the Department is already addressing through the exercise of existing authority. Second, we are concerned that there be a complete rulemaking process, with time for full consideration of public comment. Mandated schedules in the bill need to be realistic.

Additionally, we object to the requirement for the Department to undertake the development of an internal inspection device to detect seam failures. We believe that private sector research is proceeding in this area and is already laying the groundwork for the development of this technology.

Regarding mandating regulation requiring use of excess flow valves in gas distribution systems, we believe this provision is

unnecessary, and at least should be modified to clarify the Secretary's discretion to require use of the valves only in those situations expected to directly contribute to safety. To properly consider the diverse views on use of excess flow valves, both pro and con, we have issued and are reviewing comments to an ANPRM, and will undertake shortly a thorough cost-benefit analysis.

Background on Pipeline Safety

Within the Department of Transportation, RSPA, acting through the pipeline safety program, assures the safe transportation of natural gas, petroleum and other hazardous materials by pipeline through regulatory, inspection, enforcement, research, training, and informational programs. Departmental regulations are designed to assure safety in design, construction, testing, operation, maintenance, and emergency preparedness of pipeline facilities.

Two substantially identical statutes provide the framework for the federal pipeline safety program. The Natural Gas Pipeline Safety Act of 1968 (NGPSA) authorizes the Department to regulate the safety of pipeline transportation of natural gas, and other gases, as well as the transportation and storage of liquefied natural gas. Similarly, the Hazardous Liquid Pipeline Safety Act of 1979 (HLPSA) authorizes the Department to regulate the safety of pipeline transportation of hazardous liquids, including crude oil, petroleum products, anhydrous ammonia, and carbon dioxide. The Department also has the authority to assess and collect annual user fees from pipeline operators to fund the cost of the pipeline safety program. These Acts provide RSPA broad statutory authority.

State Partnership

While the federal government is primarily responsible for developing, issuing, and enforcing minimum pipeline safety regulations, the NGPSA and the HLPSA provide for state assumption of all or part of the intrastate regulatory and enforcement responsibility. To qualify for certification to assume jurisdiction over intrastate operations, a state must adopt, as a minimum, federal standards and may adopt additional or more stringent standards, as long as they are compatible with the federal standards.

RSPA is making a concerted effort to strengthen an already effective federal/state partnership for pipeline safety, a critical element in our program to improve pipeline safety. At this time, 48 states have developed gas safety programs by adopting Federal regulations and are enforcing them with substantially the same sanctions as those employed by the Department. Nine states are now certified under the hazardous liquid program, which was initiated in 1986.

We are committed to supporting increased funding for grants to states up to the statutory maximum of 50 percent of program costs to provide increased incentives for state assumption of all intrastate pipeline safety oversight. We believe this is essential to improve program performance and to encourage states to take on more responsibility for safety. RSPA is revising the allocation

formula for distributing pipeline safety grants to states to give more weight to state program performance.

Reaching Out

I am proud of the contribution of our two advisory committees -- the Technical Pipeline Safety Standards Committee and the Technical Hazardous Liquid Pipelines Safety Standards Committee. Our representatives from government, industry, and the public, including people expert in environmental issues, have been providing valuable technical knowledge and practical experience.

To provide for active information exchange and the identification and potential solutions to emerging pipeline safety issues, RSPA has been working closely with the National Association of Pipeline Safety Representatives, an affiliation of state pipeline inspectors. Additionally, we frequently interact with other national organizations and several federal agencies where missions affect pipeline safety, to assure maximum safety with available resources without causing excessive burdens on regulated facilities.

Recent Accomplishments

Major Investigations

In balancing our many competing demands, RSPA gives priority to accident investigations and the necessary responses to the causes of those accidents. RSPA conducted three significant safety investigations this past year, and these took precedence over other actions on our safety agenda.

As a result of our investigation following the 1989 incident in which the fishing vessel "Northumberland" struck an exposed offshore pipeline in the Gulf of Mexico, RSPA has been aggressively addressing offshore pipeline safety issues through 1) establishment of a joint agency task force; 2) an ongoing rulemaking responsive to the requirements of P.L. 101-599, which was sponsored in the Senate by Senator Breaux; and budget requests to support the necessary research and development. Under RSPA's leadership, five federal agencies and two state agencies assessed federal requirements, methods for determining pipeline location and cover, and availability of maps and charts. Our recommendations to enhance safety include the burial and surveillance of offshore pipelines and a clearer determination of jurisdiction of the Department of the Interior and DOT.

Upon discovery of corrosion on the mainline of the Trans-Alaska Pipeline System (TAPS), RSPA moved quickly to ensure the safe and environmentally sound operation of TAPS. With the Department of the Interior and the State of Alaska, we established a joint office to systematically review the operation and maintenance of the Trans-Alaska Pipeline System. This important assessment has included the detection of pipeline corrosion, integrity of the Valdez tanks, and emergency planning.

Following several failures on a major liquid product pipeline, RSPA investigated the pipeline's operation and maintenance, as well as the failure modes of both recent and earlier accidents. As a result, RSPA and the operator agreed that the company would perform

additional hydrostatic testing and mechanical analysis, and that the pipeline will operate at an increased margin of safety until testing is completed.

Safety Reports

The Secretary complied with the 1988 reauthorization mandates by submitting to Congress two safety reports 1) on regulating excavators and 2) on the feasibility of emergency flow restricting devices. These reports addressed critical questions relevant to our overall need to plan for possible future changes in our policies and approaches.

Our report, "An Examination of the Feasibility of Regulating Excavators", concludes that practical considerations far outweigh the limited usefulness of DOT regulation of excavators, over whom we have no current jurisdiction. Although excavation activity is the single leading cause of damage to pipeline facilities, the Report notes that ongoing state (one-call laws), local (permit requirements), federal damage prevention rules, and Occupational Safety and Health Administration (OSHA), excavation requirements are bringing about, and will continue to make, significant reductions in damage to pipelines.

In our assessment of the cost and feasibility of requiring gas and hazardous liquid operators to install flow restricting devices on existing and future pipelines systems, we concluded that these devices should be considered for hazardous liquid pipelines, but not for gas pipelines, because of the differences in operating characteristics and the nature of the failures. Further, the

Report concluded that remotely controlled block and check valves are the only effective emergency flow restricting devices. We are convinced that valves which close automatically are unreliable and subject to false closure. Modern control systems, called Supervisory Control and Data Acquisition (SCADA), with well-designed leak detection capabilities, are necessary for a remotely controlled valve to be effective, and we plan to review these further next year. We believe that the spill caused by a 1988 Ozark Pipeline System rupture would have been mitigated by such a system.

Completed Rulemakings

While the many safety investigations and reports were underway this year, RSPA was also prioritizing its rulemaking agenda, based on our assessments and the demands of oversight bodies to whom we are responsive, including the National Transportation Safety Board and the General Accounting Office. I believe we have substantially improved our response record to these agencies.

The most significant final rule addressed the leading cause of pipeline accidents -- damage by outside force, usually excavation. The most widely accepted approach to reducing damage is a formalized one-call notification system, linking excavators with operators of pipelines and other underground facilities. States now must adopt a one-call notification system as a condition for receiving a full grant-in-aid for its program.

Another important final rule now requires that all pipeline employees who perform an operating, maintenance, or emergency

response function on a pipeline to be subject to drug testing. Testing procedures, consistent throughout the Department's five modal administrations that require testing, have been specified, and the compliance and inspection program is underway.

Inspection and Enforcement

I am very proud of RSPA's improvements in our pipeline inspection and enforcement program. The Office of Pipeline Safety initiated 94 enforcement actions a slight increase over 1989. Of these actions, 46 included preliminarily assessed civil penalties totalling $305,000, an increase of 198 percent over 1989. The average civil penalty collection was $12,708, an increase of nearly three times over 1989.

We are focusing inspection resources on high risk pipelines, increasing staff to meet the most critical regional needs and being more aggressive in the use of sanctions. To more effectively use resources, RSPA prioritizes pipeline safety inspections on a risk assessment basis. This program is now fully operational.

Additionally, we have made significant improvements in the information systems that support enforcement activities. We have created data processing systems to produce useful management tools and to review operator compliance records.

The State of Pipeline Safety Today

I am pleased to report that the nation's safety record in the transportation of crude oil and petroleum products by pipeline continues to be excellent, but we have many opportunities to make further program improvements. Last year, in the area of pipeline

safety, a total of 376 incidents were reported to the Department, compared with 418 incidents reported in 1989 and 454 in 1988. These incidents occurred on natural gas distribution, transmission, and gathering pipelines as well as on hazardous liquid pipelines. These incidents resulted in 8 fatalities and 74 injuries, compared with 39 fatalities and 116 injuries in 1989, and 20 fatalities and 106 injuries in 1988. While the total incidents, fatalities and injuries are somewhat lower than those reported in the two prior years, it would be misleading to conclude that there is a downward trend since one serious incident can distort the totals.

New Legislation

Congress passed two laws last year which directly impact the pipeline safety program. Under the research and development provisions of Title VII of the Oil Pollution Act, RSPA will provide technical expertise in spill prevention and control as part of a comprehensive federal effort to help assure the environmentally sound movement of oil. In particular, RSPA's Volpe National Transportation Systems Center is serving as a resource to work with the Office of Pipeline Safety and the U.S. Coast Guard to carry out the Department's responsibility for oil spill prevention, mitigation and response. Title VIII of the Oil Pollution Act provided for the establishment of a Presidential Task Force to oversee the safe operation of the Trans-Alaskan Pipeline System (TAPS). We are working to establish the Task Force and we plan to integrate its functions, to the maximum extent practicable, with our ongoing review of TAPS. Earlier I mentioned the legislation

mandating both short and long-term regulatory solutions to the problems offshore pipelines pose to navigation. RSPA is responding to these new mandates through cooperative efforts with our sister agencies.

Clarification of Jurisdiction

In the area of jurisdiction on offshore pipelines, RSPA and the Minerals Management Service (MMS) of the Department of the Interior are discussing the possibility of revising our 1976 memorandum of understanding. The purpose would be to have MMS assume from RSPA jurisdictional responsibility over offshore pipelines on the Outer Continental Shelf, while RSPA would retain such responsibility in state waters. This will assure more effective and efficient utilization of federal resources.

RSPA Acting on the Challenges

The RSPA is requesting the resources we need to meet our many challenges, including those given us by Congress, the Administration, and the Secretary. While our programs will continue to build on the theme of safety, as an agency, we are, by necessity, increasing our attention to environmental concerns. Specifically, RSPA will increase efforts in the areas of offshore pipeline inspections and those geographical areas with underground pipelines which cut across sensitive environmental areas. New initiatives we are pursuing include 1) corrosion survey and pipeline component evaluative techniques; 2) improved data collection and management systems; 3) analysis of environmentally sensitive areas; and 4) determining the state of offshore pipeline

inspection technology and its application in various operating environments.

As I mentioned earlier, we proactively advocate shared partnership in pipeline safety, and we are requesting a 35 percent increase of $1.8 million for the pipeline safety grant program.

Ongoing Rulemaking and Studies

While I previously addressed completed rulemakings, there are several ongoing actions that have the potential to substantially enhance our ability to address safety and environmental concerns.

To bring the debate on excess flow valves to closure, RSPA has been assessing under what circumstances their installation in gas distribution service lines would be an effective means of reducing the adverse effects of ruptures. Although there are many advocates for these devices, many questions have been raised regarding their practicality and potential benefits in relation to the cost. We are currently assessing comments to our ANPRM in order to begin an extensive cost-benefit analysis.

Preventing environmental damage, such as that which occurred in the Arthur Kill Waterway between New Jersey and New York City, is a high priority issue for us. We are determining how to appropriately regulate hazardous liquid pipelines operating at low stress levels of 20 percent or less of specified minimum yield strength (SMYS) of the pipe. These pipelines are currently excepted from regulation. We are reviewing comments to an ANPRM which requested information on these low stress pipelines. There

will be a public meeting June 17, to provide a full exchange of views on this topic.

As a result of the accidents due to corrosion and other causes on residential service lines operated by the Kansas Power and Light Company in Kansas and Missouri, RSPA is considering proposals to require that leakage surveys be conducted with gas detector equipment to meet the minimum regulatory requirements. Additionally, we are considering whether leakage surveys should be performed at least every three years when electrical surveys are impractical on cathodically unprotected distribution lines outside principal business areas.

Also, RSPA is considering rulemaking on hydrostatic testing of older pipelines which have not been hydrostatically tested or adequately tested to meet current requirements. Accident reports show that 98 percent of ERW seam failures occurred in pipe manufactured before 1970, and the average age of these untested or inadequately tested hazardous liquid pipelines is 46 years old.

RSPA is finalizing a report assessing the feasibility of requiring the use of instrumented internal inspection devices. No current provisions exist in the pipeline safety regulations that require the use of these devices, commonly called "smart pigs", and I believe there would be tremendous safety benefits from expanded use of these devices.

CONCLUSION

In summary, I am very proud of the accomplishments of RSPA in the past year toward our vision of pipeline safety -- improved management and productivity, completion of significant rulemakings, the increase in our civil penalty collections, prompt investigation of safety problems identified in accidents, environmental sensitivity and our responsiveness to oversight bodies like General Accounting Office (GAO) and National Transportation Safety Board (NTSB). With your reauthorization of safety mandates and strengthened management discretion, RSPA stands ready to implement an effective and forward-looking pipeline safety program.