

STATEMENT BY BROCK ADAMS, SECRETARY OF THE DEPARTMENT OF TRANSPORTATION, BEFORE THE HOUSE INTERSTATE AND FOREIGN COMMERCE SUBCOMMITTEE ON ENERGY AND POWER
APRIL 7, 1978

Mr. Chairman and Members of the Subcommittee:

I am pleased to be before your Subcommittee to discuss the Department of Transportation's pipeline safety program, particularly as it relates to activities since October 11, 1976, the effective date of the last authorization legislation under the Natural Gas Pipeline Safety Act of 1968. The authority to appropriate funds under that legislation expires at the close of this fiscal year. We are before this Subcommittee seeking legislation to authorize additional appropriations in support of the efforts of DOT and the Administration to ensure the safe movement in commerce of hazardous gases and liquids by pipeline.

While previous funding authorizations were used to carry out an orderly development of the Federal pipeline safety program, we must now ask for additional resources to increase the program's effectiveness and to support pipeline safety requirements associated with large undertakings such as the movement of Alaska natural gas to the lower 48 States and potential LNG facilities which will require increased pipeline safety resources in the coming fiscal years.

The Department's pipeline safety functions are carried out by the Materials Transportation Bureau (MTB) through its Office

of Pipeline Safety Operations (OPSO), but on entering office I was concerned with the organization of this function and as part of reorganizing the office of the Secretary I placed the MTB in the newly created Research and Special Programs Directorate. The new Directorate was elevated to the status of other DOT operating administrations, such as the Federal Aviation Administration (FAA) and Federal Railroad Administration (FRA). Incidentally, I regret to say this took longer than I wished once the decision had been made. In addition to the MTB, this new organization has been strengthened by giving it the Transportation Systems Center in Cambridge, Massachusetts, the Transportation Safety Institute in Oklahoma City, as well as the Office of University Research, and we are now able to see that it has executive support services.

The location within the Directorate of research and development facilities and training capabilities with the pipeline regulation and enforcement functions directly benefits and adds to the effectiveness of the pipeline safety program.

Resources for the Department's pipeline safety program are authorized only under the Natural Gas Pipeline Safety Act of 1968. However, our responsibility for the safety regulation of all pipelines and associated storage facilities used for transporting hazardous gases and liquids in commerce is derived from several laws in addition to that Act. These include the Mineral Leasing Act, the Hazardous Materials Transportation Act, the Transportation of Explosives Act, the Deepwater Port Act of 1974, and the Alaska Natural Gas Transportation Act of 1976.

A number of recent regulatory developments represent an effort to upgrade the regulation of pipeline safety. For example, on October 1, 1976, operators of gas pipelines were required to: prepare and execute more detailed emergency plans, covering topics such as communication with fire and police officials, proper response to notice of an emergency, availability of personnel and tools at the scene, system shutdown, warning and protecting people. In addition, educational programs are required to enable the public to recognize and report a gas emergency.

The Department has also made significant progress in ensuring the safety of offshore pipelines. In territorial waters, the safety of these lines is regulated by the Department of Transportation, while lines on the outer continental shelf (OCS) are regulated in cooperation with the Department of Interior. As you may already know, in May 1976, the two Departments signed a memorandum of understanding establishing a division of the OCS regulatory responsibilities. Under this memorandum of understanding, the Department of Transportation exclusively prescribes and enforces pipeline safety standards for those OCS pipelines lying between production facilities and the shore. The Department of the Interior regulates pipelines running between production facilities and the wells.

Following completion of the memorandum of understanding, the Department amended both its gas and liquid pipeline safety regulations,

effective November 1, 1976. The amendments made those regulations more effective in ensuring the safety of offshore pipelines, particularly regarding matters of pipe design, buried depth, corrosion control, and repairs.

The Department has also adopted regulations to ensure that any gas to liquid service, or vice-versa, is done safely. The conversion procedures and operation and maintenance requirements of the regulations are designed to enable recognition and elimination of potential operating hazards. In the face of changing energy supply and transportation patterns, these rule changes will enable industry to safely use existing pipelines to meet different demands without having to construct new lines.

In addition to these and other new regulations, the Department has a number of pipeline safety rulemaking proceedings in process. By far the most significant of these is a comprehensive set of proposed changes to the Department's LNG safety standards, an activity which I will discuss in detail later. Other rulemaking projects now underway will enhance Federal safety standards in light of changing technology and industry practices. Particularly, since completion of recent contract study, new standards are being developed for transporting LPG and other volatile liquids by pipeline.

The Department has also moved to prevent damage to pipelines caused by outside forces. Pipeline operators, over whom DOT has jurisdiction, are seldom responsible for damage to their facilities

resulting from outside forces and we have looked to the States for assistance in addressing these problems. Since 1972, the States have been encouraged to remedy the serious problem of outside force damage through State legislation.

In January 1977, OPSO drafted and succeeded in having included in the Council of State Governments' annual publication on suggested State legislation, a "Model Underground Utility Damage Prevention Act." I contacted each of the State Governors and the Mayor of the District of Columbia, soliciting their support of the model legislation.

At the oversight hearings two years ago, we reported the establishment of four OPSO regional field offices, in San Francisco, Atlanta, Kansas City, and Washington, D. C., in addition to the existing regional field office in Houston. Since that time, the operational effectiveness of these field offices has been increased through the development of guidelines for the selection of pipeline system operators to which compliance and enforcement attention can be directed most effectively. We are continuing the training of OPSO regional and State personnel with regard to specific pipeline technology areas, surveillance and enforcement, and accident investigation techniques to assure compliance with State and Federal pipeline regulations. Because of limited resources available at both the Federal and State commission level, the OPSO inspection program establishes that the selection of operators for inspections is made after considering the types of pipelines

systems having the most noncompliances and potential problems.

Operators found in noncompliance with Federal pipeline safety regulations are subject to civil and/or criminal penalties depending upon the nature of the commodity being transported. Although penalty action is an adequate deterrent to most noncompliance, this is not always the case, particularly in the case of small municipalities that own and operate natural gas distribution systems. Our inspections of those systems have revealed that many of these systems, most of which are located in the southern and southwestern parts of the United States, fail to meet minimum safety standards due to serious and widespread physical deterioration. When our inspection reveals that a municipal gas system does not comply with Federal gas pipeline safety regulations, local officials are advised of the town's liability for a civil penalty. In many cases these localities are not financially able to pay a penalty, nor do they have the resources to repair or replace their unsafe pipelines.

To find solutions to this serious problem, the Department has sought the assistance of the Departments of Commerce and Housing and Urban Development. Commerce, through the Economic Development Administration (EDA), carries out the operative provisions of the Public Works and Economic Development Act of 1965. As we perceive the purpose of that Act, it is to help restore, by way of direct grants to State and local communities, the economic health of areas burdened with unemployment and

low family income. It appears that such EDA-administered grants could well serve to assist small municipalities that own and operate unsafe gas distribution systems.

The Department of Housing and Urban Development, through its Community Development Block Grant Program, makes discretionary grants under Title I of the Housing and Community Development Act of 1974 in order to support community development activities directed toward the elimination of conditions which are detrimental to health, safety and public welfare. The grant program is also meant to improve the quantity and quality of community services for persons of low and moderate income for the development of viable urban communities.

We believe that in awarding these discretionary grants HUD may wish to consider more closely the needs of communities having community operated gas pipelines which pose a serious threat to health and safety. Such applicants are eligible under the Housing and Community Development Act of 1977.

In essence, we are trying to help those small municipalities which own gas systems that we regulate find the resources necessary to make their systems safer.

As you know, the Natural Gas Pipeline Safety Act of 1968 provides for the assumption by State agencies of pipeline safety and enforcement responsibilities over intrastate gas pipeline facilities in accordance with that Act and State Law. In this regard, I am pleased to report that in 1976, one hundred percent

State participation was achieved for the first time since the inception of the Cooperative Federal/State gas pipeline safety program. Of the 53 agencies that participated in the program in 1977 (two State agencies in Florida were certified as well as Puerto Rico and the District of Columbia), 46 State agencies were certified under section 5(a) of the Act and 7 State agencies entered into section 5(b) agreements. This participation clearly indicates the States' interest in pipeline safety and their willingness to share in the responsibility of this cooperative Federal/State gas pipeline safety effort.

State expenditures for gas pipeline safety activities have also continued to increase since the passage of the Act. For example, States have expended about \$5 million in 1977 as compared to \$3 1/2 million in 1975. By 1982, the States have estimated that their expenditures for pipeline safety will be well over \$8 million. Federal grant-in-aid funds have provided resources to establish and expand gas pipeline safety activities at the State level. To defray up to 50% of a State's expenses, a total of \$2.3 million in grant-in-aid funds was allocated to 47 State agencies that requested financial assistance in 1977. This represents an increase of six States over those participating in the 1975 grant program. The funds have been used by the States to finance personnel, equipment, training, and other activities related to the gas pipeline safety program.

Another indication of the progress of the pipeline safety program at the State level is the substantial increase in person-years devoted to pipeline safety. Since the establishment of the pipeline safety program, the number of State personnel devoted to pipeline safety increased over 400 percent. In the last two years there has been an increase from 185 to 197 in State person-years involved in pipeline safety. While the number of State person-years was expanding, the technical expertise of the State personnel was being improved. The OPSO gas pipeline safety training program for State personnel, conducted in cooperation with the DOT Transportation Safety Institute in Oklahoma City, continued with a high degree of success in 1976 and 1977.

The States have also made considerable progress in developing programs for enforcing the Federal safety standards. In 1977, State inspectors conducted over 14,000 inspections of more than 2,800 gas operations to determine if their gas facilities were in compliance with Federal pipeline safety regulations. As a result of these inspections, over 4,200 deficiencies have been corrected in 1977 alone. These inspections have significantly improved the level of safety of our Nation's gas facilities.

To assure the proper development of a State pipeline safety program, the Department has developed and distributed a procedural

manual for the proper accounting and documentation of State expenditures related to the pipeline safety grant-in-aid program. In addition, the OPSO is presently developing a manual to provide guidance to State agencies to assist them in conducting a gas pipeline safety program. This manual will be distributed to the State agencies within the next three months.

As I previously mentioned, a major Departmental pipeline safety initiative concerns the DOT responsibilities associated with the almost 5,000 mile pipeline system that will transport Alaska natural gas to the lower 48 States.

The Department's responsibilities in this area stem from the Alaska Natural Gas Transportation Act of 1976, and the President's Decision and Report to Congress on the Alaska Natural Gas Transportation System which was approved by Congress on November 2, 1977, and signed into law by the President on November 8, 1977.

The operator of the Alaska natural gas pipeline system has already begun many preconstruction activities. During 1978, the operator will be conducting environmental studies, developing preliminary system design, conducting a geotechnical program to determine the presence of rock and the stability of soil and permafrost, and conducting pipeline burst tests.

The Department plans to monitor the preconstruction functions as they are conducted by the operator, monitor the design criteria

and test procedures as they are established, and appraise the results of such efforts. The monitoring will begin during this fiscal year and continue throughout the life of the project to mid-1983 with shifting emphasis at various stages. These responsibilities will have a major impact on the resources required to conduct DOT's other pipeline safety programs.

The DOT will exercise these Alaska gas pipeline responsibilities through a headquarters staff and a field force. An office will be established, initially located in Washington, to review the engineering design work and later relocated to Alaska to monitor the construction and operation of the Alaska portion of the pipeline system. Consultants will be employed to advise DOT in any areas where there might be insufficient inhouse capability. A contractor will be engaged to review design work and assist in the direct monitoring of the construction and initial operation of the pipeline.

Mr. Chairman, I feel that the pipeline safety program that we have pursued and the direction we plan for the future will provide a high level of safety for the public and carry out the full intent of the laws that direct our program.

Also, Mr. Chairman, the Department is now preparing detailed comments to the two bills (H.R. 11586 and H.R. 11622) amending the Natural Gas Pipeline Safety Act of 1968, introduced by yourself and Mr. Markey on the 15th and 16th of March. While I am unable to provide detailed comment today, I will offer some general

observations on the proposed legislation that may prove helpful to the Subcommittee's efforts to enhance the safety of the pipeline transportation of gases and liquids.

The Department of Transportation, through the Coast Guard and the MTB, currently carries out safety regulatory programs which touch in varying ways on every aspect of the transportation of LPG.

The Coast Guard prescribes standards for the construction and operation of LNG vessels and for LNG waterfront facilities. It also conducts an inspection program to ensure compliance with those standards. Although the Coast Guard does not have direct responsibility for choosing the site of a proposed LNG waterfront facility, its manner of carrying out its regulatory responsibilities can greatly affect that choice.

The Coast Guard's authority to direct vessel movements to prevent damage and to control vessel traffic in areas determined to be especially hazardous, or under conditions of reduced visibility, adverse weather, vessel congestion, or other hazardous circumstances can be determinative of whether vessels will in fact be permitted access to a proposed site.

Under the Natural Gas Pipeline Safety Act of 1968, the Department, through the MTB, prescribes and enforces safety standards governing the design, construction, testing, operation, and maintenance of all natural gas pipelines and related facilities,

including LNG facilities. Like the Coast Guard, the safety regulations prescribed by the MTB can be determinative of where an LNG facility can be located. For example, standards requiring minimum distances between a facility and private or commercial residences, or requiring location of a facility on a stable land mass could effectively preclude the location of a facility in areas of high population density or seismic activity.

In addition to the regulatory responsibility for the safe transportation of LNG by vessel and for its storage, liquefaction and gasification at pipeline-related shore facilities, the Hazardous Materials Transportation Act of 1974 gives the Department responsibility for regulating the safe movement of LNG by other transportation modes. A limited amount of highway transport of LNG is now being carried out primarily in the northeastern part of the nation. Although LNG is not currently being transported by railroad, it is technically feasible. If such movements are shown to be economically reasonable, while providing the necessary level of safety, they could be included in future LNG distribution plans.

Because it seems that LNG facilities will come to play an increasingly important role in assuring that our Nation's energy needs are met, and in view of changing technology and knowledge gained through Department-sponsored research, the Department's existing body of LNG facility safety regulation is being updated to better serve the public interest. The MTB initiated a new rulemaking effort in this area in April, 1977. New rules are contemplated to deal with the problems of selecting a safe site, protection against

thermal radiation and gas dispersion and guarding against the potential for a catastrophic spill. Of equal importance, the Coast Guard anticipates publishing proposed new rules in this area by mid-year. These rules will address vessel-to-facility transfer operations, fire and gas detection systems, fire protection and other safety and security matters.

Within DOT the MTB and the U.S. Coast Guard have a carefully drawn understanding regarding waterfront LNG facilities. In recent testimony, officers of the Coast Guard and the MTB have described to you that the understanding between these two organizations is meant to ensure the highest level of cooperation in dealing with LNG safety matters. However, it is necessary for the Federal Government to continue to work towards a uniform approach in handling LNG safety matters.

At issue in any discussion of LNG safety and siting is the extent to which Federal jurisdiction should be exercised over purely intrastate facilities and the role of the States in approving the site for an interstate LNG facility. Notwithstanding the intrastate nature of certain LNG facilities, except for the likelihood that they may have smaller storage tanks, the safety risks are inherently similar to those associated with interstate LNG facilities. That similarity of risks lends support to similar safety regulation when addressing those risks. Moreover, it is quite possible that it is in the area of intrastate peak-shaving plants that we are likely to see the greatest future increase in LNG facilities.

While the Department recognizes the vital interest of State and local authorities regarding the location of LNG facilities, it also recognizes the significance of LNG as a national energy resource. If the Federal Government is to assure the timely availability of that resource, the existing Federal/State process for approving LNG facility construction and operation must be streamlined; current activities of Federal and State authorities have resulted in significant delays in receiving the necessary approvals. It also appears that current processes have been less than satisfactory in addressing local concerns.

On one hand, LNG is a national energy resource which can be wasted if not marketed in a rational manner. On the other hand, State and local governments must be able to speak for their respective electorates. An accommodation must be reached--an accommodation which provides for local and State participation in the decision making. However, any solution must require decisions to be made and become final within a reasonable period of time.

With regard to the matters of liability for damages resulting from possible LNG accidents and the financial responsibility of owners and operators of LNG facilities, I am not certain whether either the strict liability and financial responsibility approach taken in H.R. 11622 or the LNG-tax-supported liability fund approach taken in H.R. 11586 would be the preferred method. Both sets of

provisions raise questions as to whether a single fixed amount, such as the \$300,000,000 figure, is either an appropriate or achievable level of demonstrated financial responsibility for every LNG facility regardless of its size and location. While both H.R. 11586 and H.R. 11622 provide a means whereby the Secretary of Transportation could exempt certain liquefied gas operations from these financial responsibility requirements either in whole or in part, perhaps the basis of a financial responsibility system could be the development of a graduated scale for mandatory demonstrated financial responsibility. Such a system could be applied to all LNG operations, whether utilizing fixed facilities or any of the various modes of transport and could be developed in reference to the maximum amount of damage that might reasonably be anticipated from such operations.

In sum, with regard to LNG safety, the Department of Transportation has been working hard to protect the public interest in the safe transportation and storage of LNG. We have made very significant progress under existing statutes and expect to make further progress within the framework of those statutes.

However, as recognized in your legislative proposals, Mr. Chairman, this Department does not have what might be called site-specific safety review authority for LNG facilities. Our review of safety at individual facilities is generally limited to considering whether such facilities comply with DOT LNG safety

standards regardless of facility location. However, the Department of Energy has a statutory basis for such authority.

The proposed legislation touches on matters other than LNG safety. The same provisions of Title II of each of the bills that would provide for expanded safety and siting regulation of LNG facilities would, as now written, also extend to LPG facilities. While LPG presents risks that must be addressed through our pipeline, marine and hazardous materials safety programs, it would be extremely difficult to treat LPG facilities and LNG facilities in an identical fashion. Vast differences in size, number and location of stationary facilities and methods of distribution suggest the appropriateness of distinctive treatment of LPG and LNG. This is not to say that more should not be done to improve LPG safety and we will soon be taking regulatory action in this area pursuant to existing statutory authorities.

It should also be recognized that LNG and LPG are but two of many hazardous materials which are regulated for protection of the public's safety and that consistent regulatory action be taken in consideration of specific and relative risks associated with each hazardous material. In that regard, I point out that other liquefied gases that are neither a natural gas nor a petroleum derivative, such as anhydrous ammonia, are considered by some to present even greater risks than either LNG or LPG, but are not addressed in the proposed legislation.

I am also concerned that a procedural aspect of the proposed legislation will likely have an unintended substantive impact. Although I appreciate the Chairman's and Mr. Markey's desire to expedite pipeline safety rulemaking, I ask that reconsideration be given to the schedule that the two bills propose for establishing minimum standards for siting and safety of liquefied gas facilities. I believe that the subject of liquefied gas facilities is of national importance and that thorough and comprehensive reviews must be undertaken before establishing final rules. It would be unfortunate if the Department was forced to issue hasty and poorly prepared regulations to meet a deadline that was not realistic, considering the regulatory process that must be followed in any major rulemaking.

Regarding another proposal found in both bills, the Department currently uses the authority of the Transportation of Explosives Act to regulate the safety of pipeline transportation of hazardous gases and liquids. The limitations under that statute respecting civil penalty authority and intrastate liquid pipelines have been frustrating to say the least. The Department welcomes the alleviation of those limitations that would be provided by the proposed legislation. However, it should be emphasized the the Department has relied on the Transportation of Explosives Act to regulate the safe transportation of all hazardous liquids, not just petroleum. If the proposed legislation is to coordinate the pipeline safety regulation activities of the Department into a single, coherent package, consideration should be given to expanding the scope of the legislation to cover the pipeline transportation of all hazardous gases and liquids.

Mr. Chairman, you have also indicated that the purpose of one of your proposed statutory provisions (section 105 of both bills) is to bring master meter systems under the regulatory authority of OPSO. On this point there is apparently a misunderstanding of the scope of jurisdiction now provided by the Natural Gas Pipeline Safety Act. DOT has always applied both the Act and the regulations to master meter systems since they are distribution systems and fall within the meaning of "pipeline facilities" and "transportation of gas." Thus, it is not necessary to amend the Act to specifically bring master meter systems under the Act's jurisdiction.

The major problem faced by both the States and DOT with regard to master meter systems is the mammoth task of ensuring compliance with safety regulations. There are a large number of operators involved and most operators are in the housing business and are not knowledgeable in pipeline operations. The proposed amendment would not necessarily alleviate this problem because, in the instances where local codes apply to master meter systems, they normally cover only the installation of piping and are silent with respect to sound operating and maintenance practices that are essential for public safety.

In the area of compliance, at times neither civil nor criminal penalty authority is the most efficient enforcement tool. One of your proposed amendments, Mr. Chairman, would allow the Secretary of Transportation to issue orders to achieve corrective

action regarding pipeline facilities that pose hazards to life or property. It would greatly enhance OPSO enforcement capabilities to have general compliance order authority, not just for those times when hazardous conditions are found. Such order authority would give OPSO the tool to adequately address safety problems before there exists noncompliance or a hazard to life or property

Lastly, because of the possible major impact of this proposed legislation on the Department's activities, I intend to do all I can to ensure that there be close cooperation between DOT personnel and your staff on H.R. 11586 and H.R. 11622 in the days ahead. We are continuing to review these bills and are ready to provide any assistance that you and your staff might desire.

Mr. Chairman, this concludes my prepared statement. I would be pleased to answer any questions you or the other Members of the Subcommittee might have.