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ASCE NATIONAL MEETING ON TRANSPORTATION ENGINEERING

"SAFETY REGULATIONS FROM A GOVERNMENT VIEWPOINT"

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Gentlemen -- I am pleased to appear before such a distinguished technical body as the American Society of Civil Engineers and I would like to thank you for allowing me to present my views on the preparation of safety regulations from a governmental viewpoint.

If you will permit a brief metaphysical digression from the purely technical aspects of this subject, I would like to attempt to suggest a few broad concepts, which I feel as a concerned engineer and public servant, are of the utmost importance to us if we are to completely fulfill the role of government which is serving the people.

Today more so than ever before, there seems to be a growing awareness, perhaps even a fear, of the finite nature of man and his environment. Our planet earth has often been described as a spaceship, and we, its passengers. We are finally coming to realize that each technological advance or action, no matter how small or insignificant, represents an additional unit of input

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into our limited environment and hence competes for the necessary aspects of the environment required to support it, e.g., air, space, raw materials, etc. I have chosen the word finite as an introductory metaphore and used this illustration to reinforce the point, because like our finite planet, government too has finite dimensions, and these dimensions should be realized and understood by all those who participate in its processes.

The complexity of modern civilization has reached such dimensions that change is really the only thing one can count on as being predictable. There seems to be a general feeling from all sides that what was sufficient to see us through the first half of this century will not be sufficient to see us through the last half. This applies to government as well as industry. There is increasing evidence that Federal programs must adapt themselves more rapidly to this ever changing environment than they have in the past. How to effectively accomplish this, while continuing to discharge our statutory responsibilities, represents the paramount management challenge facing government officials today.

The ever present challenge for government regulatory bodies is two fold in that like the planet we live on, we must be constantly aware of our finite environment, and technology's ever increasing impact on it, while simutaneously providing the correct mix of economic and safety factors necessary to insure the safe technical progress demanded by modern society.

It is within these general constraints that the Office of Pipeline Safety must develop its approach to regulatory matters. We in the Office of Pipeline Safety feel that the basic approach best suited for the Administration of the Natural Gas Pipeline Safety Act is a policy of performance oriented regulation.

I feel this approach can be better understood and placed in a more meaningful framework by briefly reviewing the Federal government's role in pipeline safety.

The beginning of the effort toward Federal pipeline safety authority is generally traced to 1951. In that year the Federal Power Commission (FPC) first recommended to the Congress that it be given safety jurisdiction over interstate gas transmission lines. This new responsibility for gas transmission lines was not included in the existing Natural Gas Act. Legislation was introduced toward this end in 1951 and 1953, and hearings were held by Congress in 1954. Although specific legislation was not enacted at that time, Congress with the assistance of the Federal Power Commission prepared and distributed a revised and expanded voluntary gas industry safety code in the early 1950s. This code was periodically revised over the years to incorporate advances in technology as they applied to safety.

In June of 1966 the FPC introduced a significant safety requirement; it started to include limits on maximum operating pressures in its pipeline certificate orders for new pipeline construction. These limits did not apply to existing pipe already in the ground. By late summer of 1966 a major realignment of Federal transportation functions had begun. In his message to Congress on transportation and traffic safety on March 2, 1966, the President recommended that a Department of Transportation be established and that it be assigned the responsibility to "improve safety in every means of transportation." This recommendation was subsequently acted upon by Congress and resulted in the Department of Transportation Act of 1966.

In January 1967, shortly after a spectacular gasline failure and resulting fire which occurred in the Queens (Jamacia) section of New York City, the President specifically addressed himself to the pipeline safety problem in his February 16, 1967, Consumer Protection message to the Congress. This message called for the enactment of the Natural Gas Pipeline Safety Act of 1967 which would authorize the Secretary of the newly created Department of Transportation (DOT) to develop pipeline safety standards and enforcement measures in cooperation with the states covering all segments of the gas industry including gathering, transmission, and distribution lines engaged in both inter- and intrastate operations.

This recommended legislation was introduced in the Senate as S.1166 and hearings commenced before the Senate Commerce Committee on April 19, 1967. The bill was favorably reported by the Committee and adopted by the full Senate on November 9, 1967, by a vote of 78 to 0.

The House Committee on Interstate and Foreign Commerce conducted hearings and considered the Senate passed administration bill during the early months of 1968. The Committee revision of the bill was reported to the full House of Representatives on May 3, 1968.

The full House considered the measure on July 2, 1968, and approved the House Commerce Committee version by a vote of 351 to 14.

House and Senate conferees met and reviewed the two versions of the proposed bills. A compromise bill was approved by both houses of Congress and the Natural Gas Pipeline Safety Act was signed into law by the President on August 12, 1968.

On September 10, 1968, the Secretary of Transportation announced the establishment of the Office of Pipeline Safety to implement the provisions of the Natural Gas Pipeline Safety Act. The Office is responsible for

establishing and enforcing Federal safety standards covering the transportation of natural gas or other flammable, toxic or corrosive gases.

The Secretary invited representatives from industry, State Commissioners and the public to attend an October 2, 1968, orientation meeting on the administration of the Natural Gas Pipeline Safety Act of 1968. The meeting set the tone for the philosophy of the administration of the Act. That philosophy could be summed up as cooperative federalism between the Federal government, industry, State and municipal governments in order to provide all Americans with the highest degree of pipeline safety possible.

The Natural Gas Pipeline Safety Act of 1968 represents a significant departure from the historical approach of more and more preemption by the Federal Government of authority involving subject matter in which the States have also had a substantial interest and responsibility. This preemption of Federal authority began, of course, with the enactment of the Interstate Commerce Act of 1887. As the nation continued to grow, and more and more socio-economic problems came to national attention, the Congress tended to increase Federal authority over different subjects. In the process, it was helped to a significant degree by judicial interpretations of the commerce clause of the United States Constitution.

These developments gave rise to such Federal legislation as the Securities and Exchange Act, the Federal Communications Act, the Federal Power Act and a host of other enactments. Each law tended to provide for regulatory authority by the Federal government.

As already indicated, the Natural Gas Pipeline Safety Act of 1968 represents a new approach to safety regulation. Stated in somewhat over simplified terms, the basic concepts of that law are as follows:

1. The Federal Government is required to establish minimum Federal safety standards for all gas pipeline facilities, except gathering lines in rural areas.
2. Any State agency, by complying with certain statutory procedures, assumes almost all aspects of the safety regulation over the intrastate facilities. The State agency may not adopt a safety standard lower than the applicable Federal standard. Nor may it increase any standard if the increase is incompatible with the related Federal standard.

3. If any State agency does not assume safety responsibility for intrastate lines within the State, the Federal Government automatically retains that responsibility.

There are related provisions concerning the adequacy of each State agency's authority to require record maintenance, reporting and inspection, as well as injunctive and monetary sanctions substantially the same as is required under Federal law. There also is provision for a grant-in-aid program to assist any State agency which complies with the requirements of the Act. We like to think of this as the Federal government's realization of the finite nature of its capacity to conduct an efficient and meaningful program, and recognition on its part that a new regulatory approach should be tried.

It is with this background that the specific philosophic principles guiding the administration of the Natural Gas Pipeline Safety Act of 1968, were developed. These principles are:

The Natural Gas Pipeline Safety Act of 1968, established (i) exclusive Federal authority for safety regulation of interstate transmission lines which are subject to regulation by the Federal Power Commission under the Natural Gas Act, and (ii) non-exclusive Federal authority for safety regulation of gathering

lines in nonrural areas and intrastate transmission and distribution lines. Where Federal authority is not exclusive, the Act provides for State agency regulation and enforcement under certain conditions.

The Act authorizes research, testing, development, and training programs to support the safety objectives. The Secretary has delegated his authority under the Act to the Director, Office of Pipeline Safety. In addition, Section 5 of the Act calls for the appointment of a 15-member Technical Pipeline Safety Standards Committee appointed to advise the Office of Pipeline Safety. The Act requires that the Committee be consulted on the technical feasibility, reasonableness, and practicability of proposed regulations. The Office of Pipeline Safety seeks the counsel of this Committee on a wide range of subjects and considers it an essential adjunct to its own organization.

The objective of the Office is safety. The issuance of safety regulations will not be considered an end in itself. Regulation will be but one of many means used to obtain the end product of safety. The Office of Pipeline Safety will investigate system failures and research the causes of failures, define safety problems and seek solutions to those problems. It will act as a clearinghouse for safety information, systematically distributing safety information acquired from government and industry research and development programs and from industry operating experience to as wide an audience as possible.

Pipeline safety regulations will establish minimum safety standards for all phases of the construction, maintenance, and operation of gas pipeline facilities. They will apply to both privately owned and publicly owned systems.

So far as practicable, this Office will state the regulations in terms of performance standards rather than design and construction specifications. We prescribe what must be done to reach a minimum level of safety, leaving industry free to develop and use improved technological means of meeting the required safety level. To ensure that industry does meet the performance standards, this Office will prescribe tests and analytical procedures to check the level of performance.

Our performance standards will define the goal which must be met by those who design, build, and operate natural gas pipeline systems. Industry will be free to work in the future as in the past, under the United States of America Standards Association B31.8 Code so long as the code meets our standards. The continued development and use of this Code will complement regulatory requirements developed by the Office of Pipeline Safety.

Our safety regulations will be solutions to safety problems. Through analysis of pipeline system failures and other operating information, we will identify and define safety problems. As we define each problem we shall seek a solution. The solution may, or may not, be a regulation, depending upon technical feasibility, reasonableness, and practicability. Reasonableness and practicability will depend in part on a cost/benefit analysis.

The cost/benefit aspect of safety regulation is not a mathematical formula. The cost of complying with a regulation simply cannot be weighed against the projected saving in life, injury and property loss. While cost can be computed in dollars, human life and suffering cannot. The cost/benefit analysis is more a state of mind than a formula. It is a state of mind which considers both cost and benefit in evaluating regulatory proposals, seeking to minimize the hazard to the public within the limits of economic feasibility.

The Office of Pipeline Safety will conduct its regulatory proceedings in public. Industry, other governmental agencies, and the general public will have ample opportunity to participate -- early and often -- in the identification and definition of safety problems, the development of alternative solutions to the problems, and the choice of regulatory solutions (where regulation is appropriate). If I may paraphrase one of President

Woodrow Wilson's remarks, our goal is "open regulations, openly arrive at." In keeping with this goal, this Office will seek the active participation of State agencies and their national associations in a cooperative safety program, while simultaneously appreciating their concern with local problems. We respect their experience in the promotion of safety in their state programs and hope to have the benefit of that experience in the development of a national program.

We shall seek a cooperative relationship with industry, founded on a mutual interest in pipeline safety. We shall draw upon the experience and talent of industry in all phases of our safety program. Our experience to date indicates that industry is willing to cooperate and we expect willing cooperation in the future. However, if the issue should ever arise, we shall not buy industry cooperation at the price of a weak regulatory program.

Finally, we shall always recognize that we perform a governmental function. Therefore, while we may deal on a daily basis with representatives of the affected industry, we recognize that it is our duty to ensure that the interests of the unorganized general public are served. Thus in every act we shall seek to serve the overall public welfare.

This then is our basic approach to our regulatory program . In order not to run the risk of wearing out my welcome , I think this would be a good place to stop. I have attempted to present to you in a short period of time a brief review of the Office of Pipeline Safety's approach to safety regulation. We feel it is a good approach, and one that will be workable in a most complex environment. I thank you for your time and kind attention.

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