

have most likely not been inspected. The public becomes very concerned when it becomes aware that "aging" pipelines underground in their community have never been internally inspected. The only method to reassure the public of the safety of pipelines is that there are requirements that these pipelines be internally inspected and evaluated on a periodic basis. This improved confidence is consistent with the objectives of the Administration's National Energy Plan. The importance of integrity management is also reflected in its inclusion in the requirements of the Pipeline Safety Improvement Act of 2002.

RSPA/OPS, as well as the pipeline industry has gained valuable knowledge from accidents and near misses in the 90's. RSPA/OPS has found that operators have gathered valuable information but that they have not used that information effectively or used it to maximum effect. Analysis of recent major accidents indicates that better use of existing information through data integration and evaluation has the potential to prevent major accidents. Data integration requirements should lead operators to make better and more informed decisions about what preventive and mitigative actions to take and how to set priorities. RSPA/OPS believes that it is possible for operators to gather and integrate the necessary data and implement the needed changes with little additional investment.

The benefits that can be quantified are expected reductions in deaths, serious injuries, and property damage costs resulting from accidents on gas transmission pipelines. RSPA/OPS has developed a level-of-magnitude estimate of these benefits. That estimate is based on the accident data reported to RSPA/OPS over a sixteen year period (1986 to 2001). RSPA/OPS estimates that the benefit of completely eliminating the fatalities, serious injuries, and property damage caused by those accidents would be equivalent to approximately \$53.25 million per year. RSPA/OPS does not expect that this rule will eliminate all accidents on natural gas transmission pipelines that would result in deaths, serious injuries, or property damage. RSPA/OPS does expect that the proposed rule will significantly reduce the frequency and consequences of such accidents. The magnitude of the expected reduction cannot now be estimated with certainty. RSPA/OPS concludes, however, that the reduction will be significant.

RSPA/OPS notes that the consequences of future accidents, in the absence of any new actions to improve pipeline safety, would likely be higher

than would be indicated by historical precedents. The reason for this is continued increase in the population living near, and utilizing land near, pipelines. Accidents that occur in rural settings typically have resulted in fewer deaths, serious injuries, and property damage than accidents that occur in developed areas. As the amount of development near pipelines increases, relatively more accidents would be expected to occur in developed areas and the consequences of those accidents would be expected to increase.

As a result of these factors, RSPA/OPS concludes that the quantifiable benefits of the proposed rule are on the order of \$40 million per year. This is less than, but on the same order of magnitude as, the continuing costs. Initial costs, for program development and modification of pipelines to facilitate testing, are significantly higher. The quantifiable benefits alone cannot justify those costs. They need not, however. Recently, gas transmission pipeline operators have indicated that, of the choices of testing available, they frequently are going to choose internal inspection as the best long term investment and while the costs are higher for the modifications needed to operate this method, the operators clearly think the investment is worthwhile.

The principal benefit to be derived from the proposed rule is one that cannot easily be quantified. That is improved public confidence in pipeline safety. That confidence has been shaken by accidents in recent years. It is necessary that actions be taken to restore that confidence. Improved public confidence in pipeline safety will, in turn, produce additional benefit. It will result in improved ability to site and construct the additional pipelines that will be needed to serve growing demand for natural gas in the United States, as indicated in the National Energy Plan. This growth results not only from increasing population, but from increased use of natural gas, as an environmentally desirable fuel, for generating electricity and other industrial uses. Inability to meet these increased demands will challenge our nation's ability to realized desired environmental goals.

RSPA/OPS discussed the draft regulatory analysis with the Technical Pipeline Safety Standards Committee (TPSSC) at a public meeting on July 18, 2002. The TPSSC, composed equally of representatives of industry, government, and groups representative of public involvement in pipeline safety issues, provided numerous comments on the draft analysis. Industry members of the TPSSC indicated that, to a much greater

degree than RSPA/OPS had estimated, the industry would choose to modify existing pipeline to make it possible to inspect using in-line inspection tools. The TPSSC also commented that costs had been greatly underestimated, primarily because the additional mileage they will need to internally inspect in order to inspect segments that can affect high and lower risk areas will be much larger than the amount estimated in the draft regulatory analysis. The much larger total amount of mileage that will require inspection could lead to supply disruptions while testing and repair is underway. Nevertheless, the committee unanimously concluded that the expected benefit in terms of improved public confidence in pipeline safety is substantial and justifies the expected costs and that with edits, the RSPA/OPS draft regulatory analysis provided a basis for proposing this rule. RSPA/OPS has revised the draft regulatory analysis in response to the TPSSC comments.

With the increased understanding of the condition of the pipeline that will result from the added assessments and repairs required in the proposed rule, there is the potential for pressures to be maintained that would otherwise have to be reduced to allow adequate safety margins. Additional demand for supply may potentially be better met by not having to impose restrictions to the flow of natural gas through existing transmission pipelines in areas where population is increasing and pipe replacement or pressure reductions would be required. Current requirements provide that natural gas transmission pipelines in areas that would be defined as high consequence areas operate at pressures that limit stresses in the pipe walls to levels significantly below those allowed in more rural areas. The reduced stresses are intended to provide additional margin against accidents that might result from unknown damage or degradation mechanisms. The proposed requirements would result in operators inspecting for, identifying, and remediating such damage. RSPA/OPS has experience, through the Risk Management Demonstration Program, that indicates that the improved confidence in pipeline integrity afforded by the type of integrated integrity management program required by this rule can lead RSPA/OPS to allow operation at higher pressures in these areas. Down the road with the program, applying that experience may make it possible for RSPA/OPS to approve operation of pipelines in some areas at higher pressures, allowing additional